PROGRAM FEATURES FOR TROOPS, TEAMS, AND CREWS

A Guide to Program Planning

Volume 2

BOY SCOUTS OF AMERICA®

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A Guide to Program Planning

Volume 2

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Volume 3 will be available in late 2015.

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Key

= Outdoor program features
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= Arts and hobbies program features

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INTRODUCING THE NEW PROGRAM FEATURES

NOW FOR TROOPS, TEAMS, AND *CREWS*

As the Boy Scouts of America's mission statement says, Scouting exists "to prepare young people to make ethical and moral choices over their lifetimes by instilling in them the values of the Scout Oath and Scout Law." There is nothing in the mission statement about meetings, outings, and other activities. However, it would be impossible to achieve our mission without dynamic, relevant programming, which also requires effective program planning. The goal of Program Features for Troops, Teams, and Crews is to make that planning a little easier for you, the unit leader.

These three volumes of Program Features bring together 48 features in three volumes for use by Boy Scout troops, Varsity Scout teams, and Venturing crews. That's four full years of suggested programming. While your unit may not use the material here exactly as presented, it offers a launching point for you and your youth members to plan exciting programs that will keep members coming back, facilitate advancement and personal growth, and help you achieve Scouting's mission.

Annual Program Planning

In Scouting, planning is a two-phase process.

- Long-term planning results in an annual calendar and a set of unit goals for the year.
- Short-term planning yields detailed plans for one month's meetings and outings—and sometimes a little more.

The Annual Planning Conference

Long-term planning happens at the annual planning conference, typically held in late spring or early summer, as soon as possible after school, community, and council calendars have been published. A month or two before the planning conference, the committee chair, unit leader, and senior patrol leader, team captain, or crew president should perform the following steps.

Step 1—Gather the necessary information.

- Key school dates, like holidays, homecoming, and exams
- Community event dates, including those the unit might want to participate in and dates you should avoid
- The chartered organization's key dates, again considering opportunities to collaborate as well as potential scheduling conflicts
- Personal dates, such as family vacations, that may affect the unit's activities
- Key district and council dates
- Data collected from the troop resource survey or activity interest survey
- Last year's annual plan, if you have one
- Unit priorities and goals
- Advancement records for each member
- A general outline of next year's program

Step 2—Discuss the planning process with your top youth leader, explaining the importance of this process and his or her role in it. Discuss options for programs and activities and the unit's goals. Share a draft outline for next year's program, and ask for the youth leader's input and thoughts. Be flexible at this point. You should both review the program planning conference guide, available online at www.scouting.org/BoyScouts/ProgramPlanning.aspx for troops and www.scouting.org/Venturing/ProgramPlanning.aspx for crews, to be on the same page with the agenda and to work ahead.

Setting Goals

What sorts of unit goals should the draft plan include? Here are some possibilities.

- Attend summer camp.
- Have an outdoor adventure at least once a month.
- Strengthen relations with the chartered organization by planning a service project to benefit the organization and by increasing the unit's presence, such as on Scout Sunday or Scout Sabbath.
- Earn the National Camping Award and a gold Journey to Excellence rating.
- Conduct a fundraiser to help pay for unit expenses such as new tents and other camping gear.
- (For troops) Have each patrol earn the National Honor Patrol Award at least once.

Step 3—Have the top youth leader share the draft plan with other youth leaders, who then share it with other members to get their input and ideas. Besides reviewing the draft plan, members could evaluate the current year's plan. A useful tool is the "start, stop, continue" method, which is based on three simple questions:

- What should we start doing that we are not currently doing?
- What should we stop doing that is not working?
- What should we continue doing that is working well and helping us succeed?

It's useful for members to have copies of the current year's calendar available for review, as well as the draft plan. They shouldn't limit themselves to those materials, however. They might, for example, see a need to focus more (or less) on advancement during meetings or to build more opportunities into the calendar for patrol outings or social events—priorities that may not have been considered.

Step 4—Invite the following people to attend the conference to maximize the efficiency of planning:

- The unit's youth leaders
- Unit committee members and other adult leaders
- The chartered organization representative
- The unit commissioner (optional)
- Anyone else who might be helpful, such as parents

Keep in mind that these people will play very different roles at the conference:

- Active roles—elected youth leaders (and all members in Venturing)
- Supportive roles—unit leader, assistant unit leaders, and any other adults

To keep the planning conference as purposeful and efficient as possible, invite only those adults who actively and regularly engage in unit activities and decision making.

Holding the Annual Planning Conference

The annual planning conference can be held at any regular meeting place in three or four hours on a Saturday morning or Sunday afternoon. However, if you have access to a cabin or retreat center, you might consider turning the conference into an overnight retreat to allow time for fellowship and team building. If the conference follows closely after unit elections, some units also combine the planning conference with the Introduction to Leadership Skills for Troops (ILST) or introduction to Leadership Skills for Crews (ILSC), the first step in the youth leadership training continuum.

Most adults should not play active roles in the planning conference. Instead, they should give their input ahead of time to the unit leader for program. If extra adults attend, keep them busy by putting them in charge of cooking and cleanup, and allow the youth leaders to focus on the task at hand.

Besides the materials described above, you might prepare poster-size calendars for each month that will be planned. (Office supply stores offer a variety of products that will work, including wall planners with erasable surfaces.) Pencil in the dates from the draft plan, as well as other important district, council, community, school, and chartered organization dates.

Another useful tool is the program planning chart, a worksheet for recording by month the program features, activities, courts of honor, service projects, leader meetings, and more. This worksheet can help ensure, for example, that leader meetings are scheduled every month and that courts of honor and service projects are evenly spaced throughout the year.

The outcome of the conference should be an annual calendar, a list of monthly program features (e.g., hiking, engineering, wilderness survival), and a set of unit goals. The amount of detail in the plan will vary. For some months, the group will decide both where it wants to go and what it wants to do. For other months, the group may choose either the destination or the outing's focus.

Ideally, the calendar should include a mix of familiar and unfamiliar activities and destinations. A few traditional outings each year are fun; more than a few can make the program feel repetitive.

Even traditional outings can benefit from occasional tweaks, such as doing a favorite activity at a new location.

While discussing ideas at the conference, use these ground rules.

- It is important to respect one another's views. Listen and don't interrupt.
- Keep focused on the task to plan the unit's annual program. Don't get sidetracked.
- Write out ideas so everyone can see them.
- Be in agreement.

The Annual Planning Conference, Step by Step

Step 1—The unit leader leads a discussion on the unit's goals for the coming year. Write the goals on a flip chart or eraser board, and agree to that list of goals.

Step 2—Share with the rest of the meeting attendees the printed draft of the calendar that shows the dates researched (or review the dates listed on poster-size calendars around the room) and events planned. Ask if anyone has other dates and events to add.

Step 3—Take a few minutes to discuss these dates and events. Once you feel comfortable with this stage of the calendar, you might take a vote to approve the dates and activities listed so far.

Step 4—The top youth leader shares updates from members about what they want to do. This exercise can be the most challenging in the program planning conference, so take as much time as is needed. The Program Features could be used as a foundation for the group's desired programs or themes. You might take it one month at a time. Don't forget to include advancement opportunities. The flow of the program is up to you and could be driven by your goals. As an example, if one of your goals is for the unit to take a wilderness trip to Alaska, some of the programs could focus on traveling to Alaska, wilderness survival, trip planning, wilderness first aid, and van safety.

Again, as the group agrees on a monthly feature or program theme, write it on a flip chart or board and take a vote. Designate someone to record all this on a master calendar, and take good notes!

Step 5—Add other important dates such as:

- Unit meetings and leadership meetings
- Boards of review
- Courts of honor
- Elections
- Open house
- Service projects
- Webelos Scout joint outings and transition ceremonies
- Any other activities that can be scheduled this far in advance (for example, fundraising events)

Step 6—Hold a final discussion on the plan, calendar, and goals, and then take a vote for approval. Once youth members approve the annual plan, it will go to the unit committee for final approval. Work with the chartered organization representative to make any facilities reservations at the chartered organization. As soon as possible, begin making campsite reservations for the dates and locations selected.

Step 7—To make this plan a truly valuable tool, it must be shared with each unit family, the chartered organization, and all other interested parties. The unit must follow its plan, share it with everyone, and review it regularly to see if modifications are needed.

After the Planning Conference

Prepare the calendar in an easy-to-use format for distribution. Here are some features to consider.

- Include as much detail as possible, including meeting start and end times.
- Indicate when regular meetings won't be held or will be held at different times.
- Color-code events for easy reference. For example, you might use blue for unit meetings and outings, green for meetings that don't affect all members (such as patrol leaders' council, unit committee, boards of review), red for special notices (such as meeting cancellations), and black for external events (such as national Scout jamborees, roundtables, and training courses).

- Add a revision date at the bottom of every page. If the calendar must be updated later, change the revision date and highlight the changes.

Distribute copies of the final plan to youth members and their families, adult leaders, members of the unit committee, and representatives of the chartered organization. Be sure to include Cub Scout pack leaders, the unit commissioner and district executive, and the chartered organization's leader, secretary, and facilities manager. Also be sure to post the calendar on the unit website and at the meeting place.

Monthly Program Planning

No matter how comprehensive and well planned your calendar is, it's simply a skeleton on which to build your program. Short-term planning puts flesh on the bones. Each month, the patrol leaders' council or crew officers plan in detail the coming month's outing and meetings. If the group is on the ball, it actually looks at three months of programming each time.

- Briefly review the month that's just ending using the "start, stop, continue" model.
- Plan in detail everything the unit will do in the month that is just beginning (or will soon begin).
- Briefly preview the following month and make assignments for tasks like reserving campsites.

As with the annual plan, be sure to communicate the results of each monthly planning meeting with all members, leaders, and other stakeholders—especially if changes are made to the annual plan.

How to Use the Program Features

Each program feature in this book provides a month's worth of program ideas for Boy Scout troops, Varsity Scout teams, and Venturing crews. You will find the following content:

- General information about the topic
- Related advancement requirements and awards
- Games related to the topic (or that are just for fun)
- Ideas for using the EDGE method (Explain, Demonstrate, Guide, Enable) to teach topics
- Four weeks' worth of meeting plans
- Outlines of three main events (outings) that build in length and intensity
- Print and online resources related to the topic, including a list of related program features

Each program feature: You will find these icons in each program feature:

Essential: Basic skills-development information and beginner-level activities

Challenging: Skills-development information and activities for those who have moved beyond the basics

Advanced: Learning topics and activities for those who are ready for the ultimate challenge

A NOTE TO VENTURERS

For the purpose of earning the Discovery and Pathfinder awards, the main event examples from each module can be considered as follows:

Essential (Tier I): Beginner level activities requiring little preparation or planning; events often last less than a full day (not overnight); activities are not far beyond the comfort zone for most participants.

Challenging (Tier II): Midlevel activities requiring some planning or preparation; events last less than four days; some prior skills development may be desirable or required; activities extend beyond the standard range for most participants.

Advanced (Tier III): Higher level activities requiring extensive preparation; events last at least four days; activities are mentally and physically challenging, requiring skills development prior to participation; such adventures are highlights of the program year and may take place once or twice annually.

Troop
Tropa _____

BOYS' LIFE TROOP PROGRAM PLANNING CHART
TABLA DE PLANIFICACIÓN PARA EL PROGRAMA DE TROPA *BOYS' LIFE*

Charter Expiration Date
Fecha de vencimiento del estatuto: _____

Month Mes	Program Features Características del programa		Troop/Program Planning Date(s) Fecha(s) de Planificación del Programa/Tropa	Troop Outdoor/ Camping Activity Actividad al aire libre/campamento de la tropa	District/Council Activity Actividad de Distrito/Concilio	Chartered Organization Dates/Charter Renewal/ Charter Presentation/ Service Project Fechas de la Organización Autorizada/ Renovación de estatutos/Presentación de estatutos/Proyecto de servicio	Special Events/ Holidays Eventos especiales/ Días festivos	(For Troop Use) (Para uso de la tropa)	Board of Review/ Court of Honor Consejo de Revisión / Corte de Honor	Leaders' Meeting Junta de líderes		
	New-Scout Patrol Patrulla de nuevos Scouts	Experienced Scouts Scouts con experiencia								Patrol Leaders' Council Concilio de guías de patrulla	Troop Committee Comité de Tropa	District/Council Roundtable/ Training Capacitación de Distrito/Concilio/ Mesas redondas
Sept. Sept. 2015												
Oct. Oct. 2015												
Nov. Nov. 2015												
Dec. Dic. 2015												
Jan. Ene. 2016												
Feb. Feb. 2016												
Mar. Mar. 2016												
Apr. Abr. 2016												
May Mayo 2016												
June Jun. 2016			Conduct annual troop program planning conference this month. Realizar este mes la conferencia de planificación del programa anual de la tropa.									
July Jul. 2016												
Aug. Ago. 2016												

BOYS' LIFE TROOP PROGRAM PLANNING CHART (A program package item)
TABLA DE PLANIFICACIÓN PARA EL PROGRAMA DE LA TROPA *BOYS' LIFE*
(Un artículo del paquete del programa)

BOY SCOUTS OF AMERICA®

Boys' Life subscriptions expire two months after unit charter expiration.
Las suscripciones *Boys' Life* caducan dos meses después del vencimiento del estatuto de la unidad.

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CAMPING

Meeting Plan: Plan Ahead/Knots

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Prepare several decks of index cards listing various items of camping gear, one item per card. Have small groups sort the cards in order of importance, setting aside items that shouldn't be taken camping.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Review the Scout basic essentials from the *Boy Scout Handbook;* discuss why each item should be considered essential.		7:10 p.m.
Skills Instruction 35 minutes	• Learn and practice the square knot, two half hitches, taut-line hitch, clove hitch, timber hitch, bowline, and sheet bend. Discuss how each is used in camping. • Make a list of personal camping gear Scouts should have.		7:20 p.m.
	• Review the above skills. • Make a camp gadget using lashings. • Learn the trucker's hitch and explain its use in camping.		
	• Review the above skills. • Practice splicing. • Learn how to tie a monkey's fist or woggle.		
Breakout Groups 15 minutes	• Discuss plans for the main event. • Review what personal and group equipment will be needed.		7:55 p.m.
Game 15 minutes	Play Knot-Tying Relay (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

Parts of a Program Feature

1. A thumbnail description of the meeting content
2. A breakdown of the parts of the meeting with suggested times
3. Note who is in charge of each segment of the meeting
4. Write down the actual times for each segment of the meeting
5. A fun activity for members to do as they are gathering
6. Start the meeting right with a formal opening ceremony
7. A quick (or not so quick) introduction to the topic for all members
8. Specific instruction for all three skill levels; note the colored icons
9. Time for patrols or other small groups to practice skills and prepare for the main event
10. A game that tests what members have learned or just lets them blow off steam
11. Take care of business at the end of the meeting
12. Get ready for the next meeting and the main event

CAMPING

Main Event: Overnight Car Camp

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Find a campsite that you can drive to and that offers plenty of opportunities for outdoor adventures. Camp overnight and hone your camping skills.

Equipment List	• Camping gear (individual and group) • Backpacks, canoes, or bicycles to get the group to and from the campsite (optional) • Food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Choose your campsite and event location. • Plan camping duty roster and meal plan. • Develop a schedule that allows plenty of time for setting up camp the right way, including establishing defined sleeping, social, and cooking areas. • Practice camping skills Scouts need to work on (fire building, cooking, knots, etc.). • Participate in other activities as desired (hiking, boating, mountain biking, etc.). • On departure, be sure you are leaving no trace of your presence.
Safety	Normal camping safety guidelines apply. Use the buddy system; cell phones are a good idea as appropriate. Have a first-aid kit handy.

Notes

For an added challenge, plan for all Scouts to reach camp under their own power—by hiking, cycling, or canoeing. If possible, have them carry their own gear. All could travel by the same means, or different groups could choose different options.

Parts of a Main Event Plan

1. A quick description of the main event
2. Basic information such as times and transportation plans
3. A quick reference to the event's ability level (essential, challenging, advanced) and more in-depth description of the main event
4. Key equipment you will need to take, including specialized gear for the type of event
5. A thumbnail planning worksheet
6. Safety concerns you should keep in mind
7. Special notes about the activity, including variations you could consider

On Target

Movies like *The Hunger Games, The Avengers,* and *Brave* have brought a renewed interest in archery. As a result, archery has become one of the fastest growing sports in the United States. So what does it take to be a great archer? Have you ever given thought to the many different types of archery shooting that are available? Target shooting at summer camp is just the beginning.

Have you ever wanted to try archery but didn't know where to start? This module will describe the different types of archery equipment and introduce the basic skills that will help you become a proficient archer. As you become more accomplished, there will be several ways to progress in the sport. First, you will need to learn how to handle a bow and arrow safely. Then, you will need to work on various fundamentals so you become a skilled archer. But even if you are just getting started, archery is a whole lot of fun. You can get started now with the Archery program feature.

Objectives

This month's activities should:

- Teach Scouts how to handle bows and arrows safely.
- Explain the different types of bows and how to take care of each type.
- Help Scouts understand the parts of different bows and arrows.
- Instruct Scouts in the fundamentals of archery as they apply to the bow that is being used.
- Introduce Scouts to the various styles of archery that are available to create a lifelong hobby.

RELATED ADVANCEMENT AND AWARDS

- Archery merit badge
- Ranger: Shooting Sports elective
- Venturing Shooting Sports Outstanding Achievement Award
- USA Archery JOAD (Junior Olympic Archery Development) Awards

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing archery as your program feature during your planning meetings:

1. What is our unit's current skill level?
2. Who do we know who is an archery instructor?
3. What materials and equipment (bows, arrows, quivers, etc.) do we need, and what are the BSA's rules for handling these?
4. Do we have a copy of the current *National Shooting Sports Manual* for reference?
5. What location is needed for meetings—our normal meeting place or a shooting range?
6. Is there any cost factor involved?
7. What will we do for our main event, and where will we go?
8. To meet our needs, what should we change in the sample meeting plans?

LEADERSHIP

Archery must be conducted by trained, qualified onsite range masters who actually direct the operation of the range program and archery instruction. To qualify as an archery range master, the range master must be at least 18 years old and be a BSA National Camping School–trained shooting sports director or a USA Archery/NFAA instructor.

PARENTS CAN HELP WITH THE ARCHERY PROGRAM FEATURE BY:

1. Sharing their expertise
2. Providing transportation and supervision for the main event
3. Providing materials for the different games and activities
4. Mentoring Scouts as they work on advancements

THE HISTORY OF ARCHERY

The advancement of civilization was enhanced by the use and discovery of bows and arrows, which provided a much safer way to hunt.

Spearheads have been discovered from many thousands of years ago. A recognizable bow, made of yew or elm, was discovered dating back to 6000 B.C.

Egyptians are considered the first to use the bow in battle, sometime around 3500 B.C. to 2800 B.C. This bow, known as the composite bow, gave them superiority over their enemies. Around 1500 B.C., Assyrians developed a shorter recurve bow that provided more power and easier handling.

Around 1200 B.C., an Egyptian pharaoh named Ramses II gave archery another boost by putting archers on chariots. This mobility allowed the Egyptians to defeat the Hittite army. Crossbows were used in China around 600 B.C. to 500 B.C. A few hundred years later, the Parthians became famous for shooting backward while riding a horse. The term "Parthian shot" is still used today in archery.

Around A.D. 1000, bow and arrow technology swept the Americas. Archeological studies indicate its use was adopted by most prehistoric American Indians.

Over time the wooden bow was made longer. The British were famous for improving upon on the bow, and their version eventually became known as the British longbow. The most famous battle of the longbow was the battle of Crécy in 1346. In 1500, to promote the use of the longbow, crossbows were banned in England. In 1595, the army was ordered to replace all bows with muskets. However, archery has remained a popular sport activity in England.

In 1879, the National Archery Association was founded in the United States. The first national tournament was held in White Stocking Park in Chicago the same year. The country's first archery club, the United Bowmen of Philadelphia, was founded in 1828.

In 1900, archery became part of the Olympic Games. It was dropped after 1920 because the wide range of rules could not be standardized. In 1931, the Federation Internationale de Tir l'Arc (FITA) was founded in Paris and standardized the rules for international competition. It was not until 1972 that archery was again a part of the Olympics.

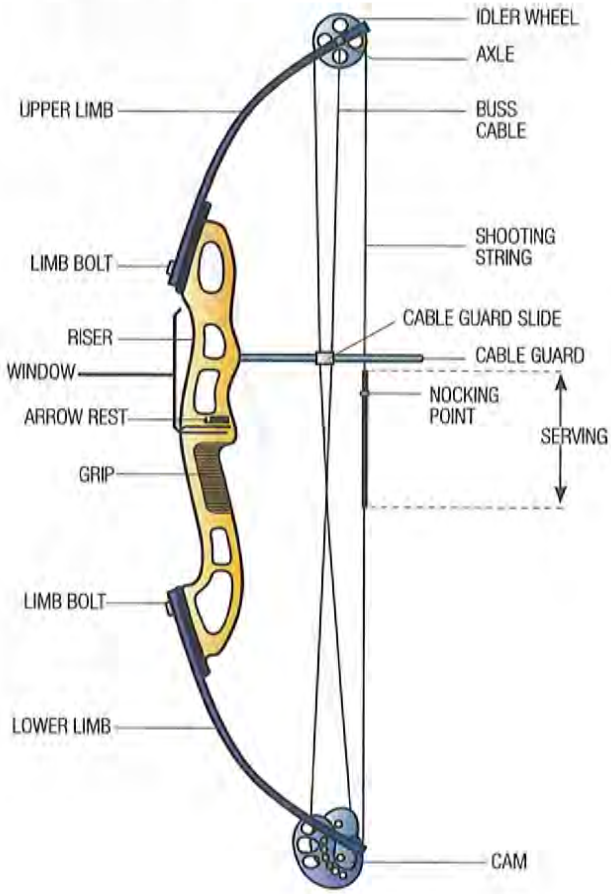
GENERAL ARCHERY SAFETY RULES

- Keep all arrows in their quivers until ready to shoot.
- The best way to transport an arrow safely is in its quiver. If you must carry arrows in your hands, hold them securely with both hands around all of the arrows and with your palms facing down.
- Be sure the area around and beyond your target is clear before you shoot. Never draw a bow if anyone is in front of the shooting line.
- Always aim and shoot at a definite target; never shoot just for the sake of shooting. Be sure of your target and that it is safe to shoot at it. If you are not sure, take a closer look. If, after a closer look, you are still not sure, do not shoot.
- Always have an arrow on the string when shooting a bow. Dry firing—shooting a bow without an arrow—can seriously damage a bow and possibly injure the archer. Never dry fire a bow.
- Always use proper safety equipment, including an arm guard and a finger tab or glove. A bow sling is not required but is recommended.
- Always inspect your equipment before shooting. Repair or replace damaged equipment. Replace the bowstring when it becomes worn.
- Shoot only at targets that are thick enough to stop your arrow. Do not shoot if there is any chance your arrow might ricochet from (bounce off) the target or another object and hit someone.
- Use arrows that are the proper length for you. Arrows that are too short can cause serious injury.
- Never shoot an arrow up into the air.
- Walk, do not run, on the archery range. If you run, you might accidentally cross in front of another group of archers, step on arrows lying on the ground, or fall and trip into a target and be injured by the arrows sticking out of it.
- When retrieving arrows from behind a target, particularly on a field range or at an isolated target, lean your bow against the face of the target or stick an arrow in the top of the target with the fletching up. This will warn other archers that you are behind the target.

TYPES OF BOWS

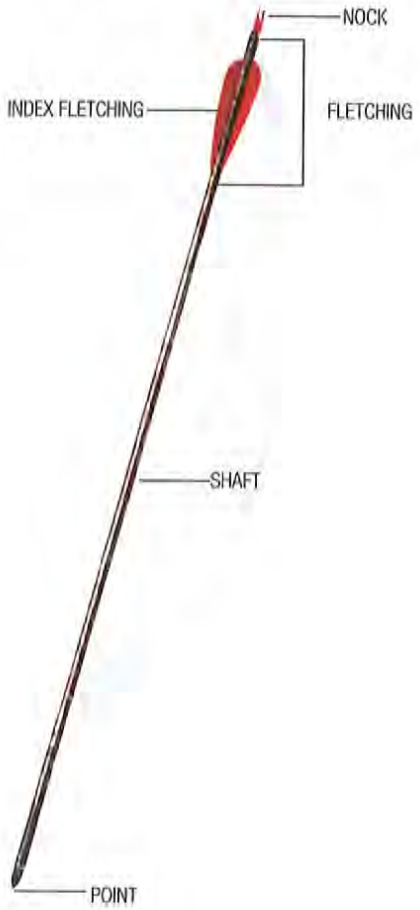
Archers have several types of bows from which to choose.

A **compound bow** has a system of strings and cables connected to cams (pulleys) of various designs. When the bowstring is drawn back, the cams multiply the force the archer exerts on the bow, thus making the bow easier to hold and aim and storing more energy. When a compound bow is shot, the arrow is aided by energy stored in the limbs, and it releases the arrow with much more "compounded" energy—hence the name. Most compound bows are shot with different accessories and use sights to aid in aiming the bow.



Most **traditional bows** have no sights and are shot instinctively. There is less stored energy in a traditional bow than in any other form of archery. There are several types of traditional bows, with the recurve and the longbow being the most common. When a recurve bow is strung, the string will touch the limbs for 2 inches or more. When a longbow is strung, the string will touch only the grooves that hold it on the tips of the bow. There are several other types of traditional bows, including flatbows, selfbows, horsebows, and hybrid longbows.

A **crossbow** is most often shot like a rifle. There is a stock that holds the trigger mechanism; when the bow is cocked, it also holds the string back. The "prod" is attached to the front of the stock and is where the limbs are attached. Crossbows use arrows—called "bolts"—that are much shorter and stronger than regular arrows. The bolt is placed on top of the stock where a groove is cut and moves along what is called the "rail."



COMPETITION TYPES

Like many sports, archery offers different ways for people to get involved in competitions. Depending on where you live and the climate in your area, you can compete all year round. There are some general times of year where there are more competitions for each style listed below. Seasons overlap slightly to allow continuous archery competition.

3-D archery simulates different scenarios that may be encountered while bow hunting. Archers move around a course shooting at molded-foam replicas of different game animals; novelty targets are also available (including dinosaurs and even Bigfoot). The season for 3-D archery is year-round.

The **indoor archery** season lasts from late October through March. You aim at a multicolored target from 18 or 25 meters away or a blue-face target at 20 yards.

In **safari archery,** you shoot either 3-D targets or paper animal targets, aiming at bright orange dots that designate where you should hit. There are novelty targets for this competition as well. Like 3-D archery, safari archery is shot on a roving course. The season generally runs from late February through May.

Field archery competition includes three parts, all on a roving course. The "field round" is shot on a black-and-white ringed target with black in the center. The "hunter round" is shot on an all-black target with only the center being white. The "animal round" is shot on paper animal targets with a white dot where you are supposed to hit. The season generally runs from March through July.

Target archery is the most familiar competition, and the type seen in the Olympics. Target archery involves shooting at multicolored targets in an open field. The season generally runs from May through August.

For each competition type, there are different categories depending on equipment, age, and gender.

ARCHERY GAMES

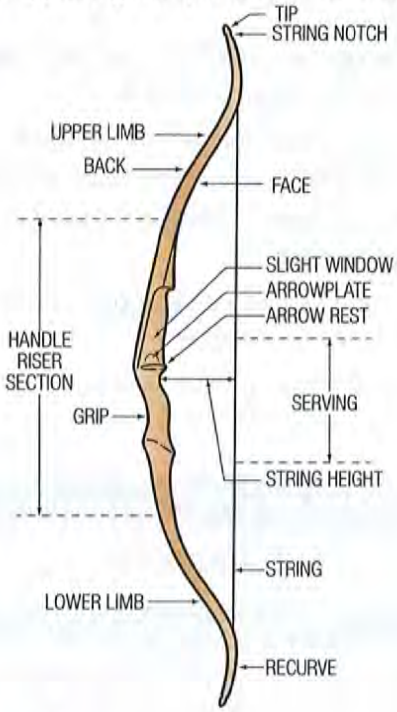
Parts of a Bow Relay

Equipment: Several bows of different types, blindfolds

Method: Before the game starts, blindfold all players except the leader of each team. Teams line up in relay formation, and adult leaders stand at the far end of the room holding the bows. On a signal, the first player on each team walks forward to an adult (with the team leader serving as a guide). Each player examines the adult's bow and tries to identify the part of the bow where the adult places his hand. He then returns to tag the next player. Continue until all players have had a turn.

Scoring: Players score 1 point for identifying the type of bow and 1 point for identifying the specific part.

Variation: Set a timer and let players continue competing, taking multiple turns, until time expires.



The Maze

Equipment: None

Method: Each team forms a circle. Next, each member reaches across with his right hand and takes someone else's right hand. Then, each member does the same with his left hand, but he must take the left hand of a different person. On a signal, two players (appointed before the game) let go of their right hands only. No one else may let go. These two "loose ends" will attempt to straighten out the maze of hands into a straight line.

Shooting Steps Shuffle

Equipment: For each team, prepare two sets of cards; one set shows the 10 shooting steps (stance, nock, set, predraw, draw, anchor, transfer/hold, aim, release, follow-through), and the other shows definitions taken from the glossary of the *Archery* merit badge pamphlet.

Method: Shuffle each team's cards (20 total). On a signal, each team must put its cards in order and match each step with its definition.

Scoring: The first team to get its cards sorted correctly wins.

Variations: 1) Add a relay element where one player at a time runs forward to retrieve a card. 2) Put all the teams' cards together in a large array on the floor; teams must first find 20 unique cards and then begin the sorting process.

Granny's Footsteps

Equipment: None

Method: Assemble all players in a single line. To start the game, a leader acts as "Granny." Granny stands 20 yards in front, with his back toward the group. The Scouts try to sneak up on Granny without being seen. Granny counts to himself from 1 to any number up to 30. At any point he wishes, he turns around and tries to catch someone moving. A Scout caught by Granny starts over. Any player caught three times is out of the game.

Scoring: The first Scout to touch Granny wins.

Variation: Rather than move toward Granny, the players simply move around the room. Anyone caught moving when Granny turns around is eliminated. Continue until only one player is left.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain the rules of archery safety.
- Tell about local and state laws for owning and using archery tackle.
- Describe the parts of different bows.
- Explain the different arrow types.
- Describe how to safely clean and store a bow.

DEMONSTRATE

- Demonstrate the fundamentals of shooting.
- Show the different parts of a bow.
- Demonstrate how to use a cord stringer.
- Display the different arrow types and show how to determine which is used for different bows.
- Give a presentation about safely cleaning and storing a bow.

GUIDE

- Help Scouts determine their dominant eye.
- Have Scouts point out and describe the different parts of the bow and how they work.
- As a coach/pupil team, string a bow using a cord stringer.
- Have Scouts demonstrate proper archery technique while you watch.
- Guide Scouts as they clean bows and explain how to properly store them.

ENABLE

- Have Scouts use the EDGE method to teach archery terminology to a friend.
- Create coach/pupil teams where Scouts can help each other improve their shooting technique.
- Have Scouts (under supervision) prepare an archery range for use.
- Hold an open shoot where Scouts can practice the skills they have learned.
- Let Scouts make their own arrows under the guidance of experienced archers.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Multiple Days/Evenings
Day of archery range shooting—Visit an archery range and practice the fundamentals of shooting.	Archery tournament—Participate in a local archery tournament or league to learn more advanced skills.	Archery instructor course—Become an NFAA (National Field Archery Association)/USAA (USA Archery) Level 1 coach. Then, set up and run a fundamentals course for beginning archers.

ARCHERY

Meeting Plan: The Bow

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a display of various types of bows for Scouts to examine as they arrive. Aim for a wide variety, including recurve bows, compound bows, crossbows, and even homemade bows.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 20 minutes	Review the range safety rules found in the *Archery* merit badge pamphlet.		7:10 p.m.
Skills Instruction 30 minutes	• Learn the parts of a recurve bow. • Practice stringing a bow using a cord stringer.		7:30 p.m.
	• Learn the parts of a recurve bow and a compound bow. • Practice stringing a bow using a cord stringer and a box stringer.		
	• Learn the parts of a recurve bow, a compound bow, and a crossbow. • Practice stringing a bow using a cord stringer and a box stringer.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Review the requirements for the Archery merit badge. • Review the last main event and discuss what could have made it better.		8 p.m.
Game 10 minutes	Play Parts of a Bow Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ARCHERY
Meeting Plan: Arrows

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show Internet videos of archery competition from the Olympics or other events.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss why it is important to know what type of arrow is needed and where you would find this information.		7:10 p.m.
Skills Instruction 45 minutes	• Learn about different arrow types. • Learn how to properly nock an arrow on different bows. • Discuss cracks and splinters on arrows. • Learn to determine proper arrow length.		7:15 p.m.
	• Review the above information. • Learn the difference between wooden, glass, aluminum, and carbon arrow shafts. • Discuss different arrow problems and what to do if one occurs. • Learn how to properly make an arrow.		
	• Review the above information. • Learn to identify different arrows and different fletchings. • Learn how to properly nock an arrow, make different fletchings, and use different arrow rests.		
Breakout Groups 15 minutes	• Begin planning for participation in the main event. • Work on advancement requirements as needed.		8 p.m.
Game 10 minutes	Play the Maze (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ARCHERY

Meeting Plan: Fundamentals of Shooting

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As Scouts arrive, show an instructional video about archery.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 25 minutes	Learn the fundamentals of archery shooting, including the 10 shooting steps described in the *Archery* merit badge pamphlet.		7:10 p.m.
Skills Instruction 25 minutes	• Learn to determine eye dominance. • Learn the following terms: cast, draw weight, string height (fistmele), aiming, spine, mechanical release, freestyle, and barebow.		7:35 p.m.
	• Review the above information. • Help newer archers determine eye dominance.		
	• Review the above information. • Discuss ways to improve shooting technique.		
Breakout Groups 15 minutes	• Continue planning for participation in the main event. • Plan outing menus as appropriate. • Work on advancement requirements as needed.		8 p.m.
Game 10 minutes	Play Shooting Steps Shuffle (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ARCHERY

Meeting Plan: Cleaning and Storing

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Display several five-color targets around the meeting room that have already been shot (or fabricate such targets using photocopies and a hole punch). As Scouts arrive, have them score each target using 10-ring scoring: 10-9-8-7-6-5-4-3-2-1.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss importance of cleaning and properly storing bows.		7:10 p.m.
Skills Instruction 45 minutes	• Learn how to clean a recurve bow. • Learn how to store bows and arrows properly.		7:15 p.m.
	• Learn how to clean a recurve bow, a compound bow, and a Mathews Genesis bow. • Learn how to store bows and arrows properly.		
	• Review the above information. • Learn how to store other archery equipment properly, including tabs, arm guards, shooting gloves, and quivers.		
Breakout Groups 15 minutes	• Finalize plans for participation in main event. • Work on advancement requirements as needed.		8 p.m.
Game 10 minutes	Play Granny's Footsteps (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ARCHERY

Main Event: Day of Archery Range Shooting

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity:

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Visit an archery range and practice the basic skills of shooting. Complete four to six hours of basic skills instruction and practice. Basic skills are the foundation for any shooting sport. With the proper instruction and the practical application, Scouts will gain confidence in their ability to hit the target at which they are shooting.

Equipment List	• Properly fitted bows • Properly fitted arrows • Accessories (arm guard, quiver, release, bowstringer, etc.) • Targets • String maintenance supplies/tools • Scout Basic Essentials (Review the list and take what you need.) Refer to the BSA's *National Shooting Sports Manual* for a complete list of equipment.
Activity	Do the following under the supervision of a qualified instructor/coach: 1. Find out about several different types of bows and arrows and learn their parts and functions. 2. Review "Safety First" safety rules that apply to archery. 3. Learn how to select the proper and safe arrow for the bow with which it will be shot. (Note: Using an incorrect arrow can cause serious injury.) 4. Learn the fundamentals of archery: stance, posture, grip, drawing, back tension, anchor-point, aiming, and execution.
Safety	Always follow the policies in the *Guide to Safe Scouting* and the BSA's *National Shooting Sports Manual.* The range officer or range master on duty serves as the person in charge. The range master is there to help ensure the safety of all participants and bystanders and to ensure the range is a safe environment for archery shooting.

Notes

When possible, parents should support their Scouts by encouraging them to earn or save money to buy the equipment they will use on a regular basis. Scouts should practice whenever possible to become more comfortable with their equipment and to hone their skills as they prepare for the next level.

ARCHERY

Main Event: Archery Tournament

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Participate in a local archery tournament or league to learn more advanced skills. After the basic skills have been learned, the archer is ready to move to the next level. Each skill can be dissected into several parts. Understanding what occurs and how it can affect the shooter or equipment is necessary to become competitive in the sport. With proper instruction and practical application, Scouts can hone their skills to prepare for a local archery tournament or league.

Equipment List

- Properly fitted bows
- Properly fitted arrows
- Accessories (arm guard, quiver, release, bowstringer, etc.)
- Targets
- String maintenance supplies/tools
- Scout Basic Essentials (Review the list and take what you need.)
- Camping gear and food, as appropriate
- Water

Refer to the BSA's *National Shooting Sports Manual* for a complete list of equipment.

Activity

Do the following under the supervision of a qualified instructor/coach:

1. Review "Safety First" rules for archery.
2. Review the fundamentals of archery.
3. Break down each fundamental into the following:
   a. Stance: open/closed/uphill/downhill
   b. Posture: recurve/compound/uphill/downhill/proper skeletal support
   c. Grip (bow): high/medium/low/understanding torque
   d. Grip (string): release/fingers/split grip/three under/understanding effects
   e. Drawing the bow: overbowed/muscle load/holding weight
   f. Back tension: proper muscle load/aid to aiming/calling your shot
   g. Anchor point: high/medium/low/floating/skeletal support/consistency
   h. Aiming: overaiming/punching/plucking/collapsing/target panic
   i. Follow-through: calling your shot/lack of follow-through/pushing
4. Discuss tournament pressure and mental preparation.
5. Become familiar with local archery ranges and participate in a local one-day tournament or league.

Safety

Always follow the policies in the *Guide to Safe Scouting* and the BSA's *National Shooting Sports Manual*. The range officer or range master on duty serves as the person in charge. The range master is there to help ensure the safety of all participants and bystanders and to ensure the range is a safe environment for archery shooting.

Notes

Try to participate in several different tournaments or leagues. The pressure of tournaments is greatly reduced as your confidence builds and you develop the ability to control your nerves. It may take a few attempts, but if you stay with it, you will amaze yourself!

ARCHERY

Main Event: Archery Instructor Course

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Become an NFAA (National Field Archery Association)/USAA (USA Archery) Level 1 coach, then set up and run a fundamentals course for beginning archers. Those who progress in the sport often have the desire to teach what they have learned. After becoming a Level 1 coach, you can set up a day of archery fundamentals instruction for those who want to try archery for the first time.

Equipment List	• Properly fitted bows • Properly fitted arrows • Accessories (arm guard, quiver, release, bowstringer, etc.) • Targets • String maintenance supplies/tools • Scout Basic Essentials (Review the list and take what you need.) • Camping gear and food, as appropriate • Water • Instructor manuals as appropriate Refer to the BSA's *National Shooting Sports Manual* for a complete list of equipment.
Activity	• The NFAA (National Field Archery Association)/USAA (USA Archery) coach certification program requires instruction by a higher-level coach. • Identify an appropriate instructor/coach found through your state's archery association. • Participate in and complete the certification course. • Set up and run a fundamentals course for beginning archers.
Safety	Always follow the policies in the *Guide to Safe Scouting* and the BSA's *National Shooting Sports Manual*. An appropriate instructor/coach is required for this main event. This instructor is the person in charge. He or she is there to help ensure the safety of all participants and bystanders and to ensure the range is a safe environment for archery shooting.

Notes

While becoming an instructor sounds simple enough, it will take weeks and months of personal sacrifice for the training and practice that is necessary to reach this objective.

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Rifle Shooting, Shotgun Shooting, and *Fish and Wildlife Management* merit badge pamphlets

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Organizations and Websites

***Archery Focus* magazine**
Website: http://www.archeryfocus.com

International Bowhunting Organization
Website: http://www.ibo.net

National Field Archery Association
Website: http://www.nfaausa.org

USA Archery
Website: http://www.usarchery.org

World Archery
Website: http://www.worldarchery.org

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The World at Your Feet

Many people today never stray far from a warm bed, a cozy bathroom, and a well-stocked refrigerator. While they enjoy all the comforts of home, they miss out on the wonders of nature, the fun of exploring new places, and the exhilaration that comes with accomplishing more than they ever thought they could.

When you go backpacking, you carry all the essentials of home (if not all the comforts of it) on your back. No longer are you tied to one particular place. You can eat breakfast in a secluded valley, have lunch along a winding trail, and enjoy dinner by starlight on a mountaintop. Then you can bed down under the stars for a well-earned rest before beginning a new day of adventure.

Backpacking can be a single-day activity of several miles in a local park or a weeklong trek of 50 miles or longer at Philmont Scout Ranch. No matter what the distance, you will need to be prepared to meet the challenge, and you will need to follow the principles of Leave No Trace so that those who follow you can enjoy the same trails for decades to come.

Objectives

This month's activities should:

- Improve physical fitness.
- Create a sense of communion with nature and God.
- Foster a greater appreciation for the outdoors and a determination to follow the Outdoor Code and the principles of Leave No Trace.
- Offer opportunities to practice planning and teamwork.
- Strengthen self-confidence and team building.

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot requirements 1, 2, and 5
- Second Class requirements 1a, 1b, 2, and 3a
- First Class requirements 3 and 10
- Backpacking and Hiking merit badges
- 50-Miler Award
- Outdoor Ethics awards
- National Medal for Outdoor Achievement
- National Outdoor Challenge Unit Award
- Historic Trails Award
- Backpacking Varsity Scout activity pin

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing backpacking as your program feature during your planning meetings:

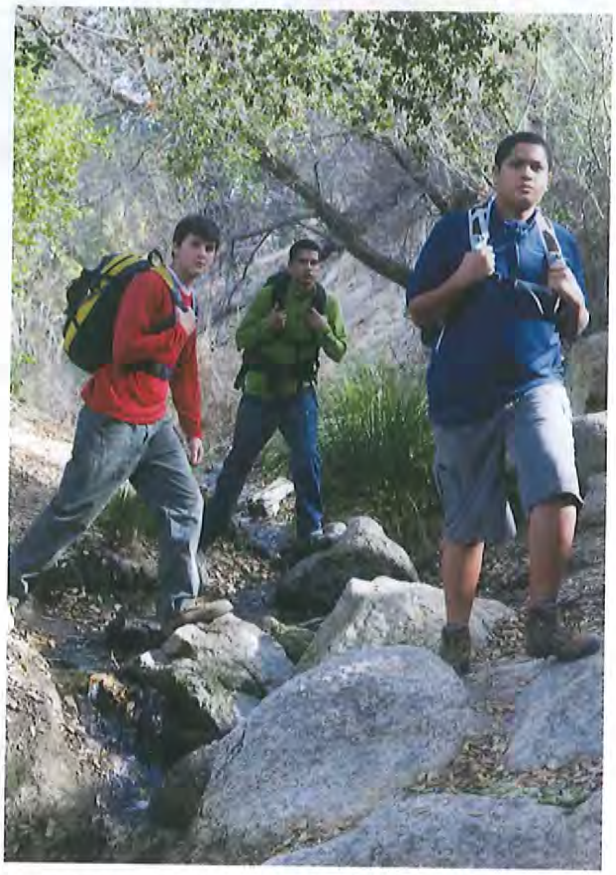
1. What will our main event be?
2. Where will we have our main event?
3. Do we have appropriate crew gear (e.g., stoves, tents)?
4. Do our Scouts have the appropriate personal gear (e.g., backpacks, boots)?
5. Who in the unit can teach backpacking skills?
6. Where could we find guest speakers who have worked at a high-adventure base or hiked trails like the Appalachian Trail and Pacific Crest Trail?
7. How proficient are our Scouts and leaders in backpacking skills?
8. Are we ready to tackle a trek at a high-adventure base operated by the BSA or a local council?
9. How can we involve parents?
10. What parts of the Backpacking merit badge can we focus on?
11. How can we use backpacking to promote team building?
12. To meet our needs, what should we change in the sample meeting plans?

PARENTS CAN HELP WITH THE BACKPACKING PROGRAM FEATURE BY:

1. Sharing their expertise
2. Providing transportation for the main event
3. Loaning backpacking equipment to the group
4. Supporting money-earning projects to raise funds for equipment

MAKING BACKPACKING FUN

Scouts who are new to backpacking can find it boring. Scouts who are less physically fit may view it as little more than hard work in disguise. Fortunately, there are plenty of things you can do to make backpacking fun. Here are a few.



- Hike to interesting destinations: a hidden waterfall, a scenic overlook, a historic site, or a spot to do some bouldering or horseback riding.
- Plan activities for evenings in camp. Take along cards, a flying disc, and other game equipment.
- Combine hiking with other activities. Play team-building games at lunch. Stop along the trail and have Scouts study the flora and fauna in a 3-foot-square area. Practice splicing at breaks. Use techniques from the *Boy Scout Handbook* to measure the height of or distance to specific landmarks.
- Don't just walk. Take a 10-minute water break every hour, ideally in an attractive location—never at the bottom of a big hill!

- Practice techniques that help reduce fatigue. When climbing a big hill, try the caterpillar technique: When the leader needs a break, he steps to the side of the trail and lets the group continue. The new leader does the same thing after a few minutes, and so on. Eventually, the original leader, now rested, will end up in front again. Repeat as needed.
- As you hike, play the sorts of games you might on a long car ride, such as Twenty Questions.

BUDGET BACKPACKING EQUIPMENT

Although it is possible to spend hundreds of dollars on equipment, including backpacks, sleeping bags, and boots, backpacking doesn't have to be expensive. Some outdoor stores rent backpacks and other gear, and many Scouting units collect donated gear that Scouts can use. That is especially helpful with backpacks, which young Scouts can quickly outgrow.

Scouts also don't need the latest, greatest gear. Rather than buying an expensive zero-degree sleeping bag, you can add a fleece blanket to a less expensive bag rated to 20 degrees. Rather than buying fancy stuff sacks, use resealable zipper bags from the kitchen. If you are hiking on easy terrain, you can probably make do with good athletic shoes rather than hiking boots.

The Principles of Leave No Trace

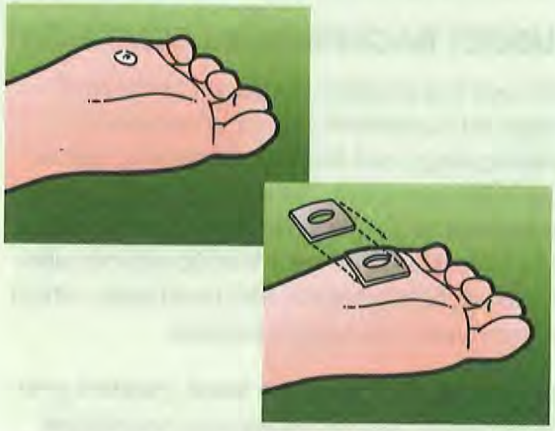
Backcountry visitors have a responsibility to safeguard the land. Incorporate Leave No Trace principles into your activities.

1. **Plan ahead and prepare.** Comply with area regulations such as observing limitations on group size. Schedule your trek to avoid times of high use. Obtain all necessary permits.
2. **Travel and camp on durable surfaces.** In high-use areas, concentrate your activities where vegetation is already absent. In less traveled areas, take different paths to avoid creating new trails that cause erosion. Always choose the most durable surfaces available: rock, gravel, sand, compacted soil, dry grasses, or snow.
3. **Dispose of waste properly.** Carry out of the backcountry all trash, leftover food, and litter. Use biodegradable soap and properly dispose of dishwater at least 200 feet (about 80 to 100 strides for a youth) from springs, streams, and lakes. Help prevent the spread of disease: Catholes 6 to 8 inches deep in humus and 200 feet from water, trails, and campsites are often the most practical way to dispose of feces.
4. **Leave what you find.** Allow others a sense of discovery, and preserve the past. Leave rocks, plants, animals, and other objects as you find them. Examine but do not touch cultural or historical structures and artifacts.
5. **Minimize campfire impacts.** Many natural areas have been degraded by overuse of fires and the increasing demand for firewood. Lightweight camp stoves are fast, eliminate the need for firewood, and make cleanup easier. After dinner, enjoy a candle lantern instead of a fire.
6. **Respect wildlife.** Practice these safety methods:
   - Observe wildlife from afar to avoid disturbing them, especially during breeding, nesting, and birthing seasons. Quick movements and loud noises are stressful to animals. You are too close if an animal alters its normal activities.
   - Store food securely and keep garbage and food scraps away from animals. Never feed wildlife.
7. **Be considerate of other visitors.** Protect the quality of their experience by respecting their privacy and following these practices:
   - Select campsites away from other groups.
   - Keep your noise level down. Leave pets and all music players at home.
   - Make sure the colors of clothing and gear blend with the environment.
   - Respect private property and leave gates (open or closed) as found.

Blisters develop when skin is irritated by friction or heat and are often caused by footwear that doesn't fit properly. To help prevent blisters:

- Ensure that your footwear fits well and has been adequately broken in.
- Change into dry socks whenever your feet become damp.
- Wear two pairs of socks—a thin, close-fitting liner sock made of a synthetic material under a thicker, looser-fitting hiking sock.

If you notice a hot spot—the signal that a blister is starting to form—treat it immediately. Apply a gel pad intended for blisters. Alternatively, cut a piece of moleskin with a hole in the center, and fit it around the affected area. These steps will help reduce direct pressure and protect the blister from continued rubbing. Change bandages daily to lower the chances of infection.



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BACKPACKING GAMES

Dribble the Ball Relay

Equipment: One soccer ball per team

How to play: Divide into teams. One player from each team dribbles the ball around a course, then passes it off to the next player. The first team to get all players through the course wins. (This game is best played outside but could be done indoors—in a gym, for example.)

Throw-In for Accuracy

Equipment: One soccer ball per team, stopwatch or timer

Method: Divide into two teams. Establish a sideline where one team member will throw in the ball using a two-handed overhead throw. Another player stands in the field to "head butt" the thrown ball. If teams have varying skill levels, you can position the head-butting players closer to or farther from the sideline.

Scoring: Each team scores 1 point for every ball that is head-butted.

Everybody Up

Equipment: None

How to play: This initiative exercise is a useful way to introduce the idea of group cooperation. Ask two Scouts of about the same size to sit facing each other on the ground or floor with their knees bent and tightly grasping each other's hands. From this position they try to pull themselves into a standing position. If they succeed, ask another Scout to join them and try standing with three players, then four, etc. Each Scout must grasp the hands of another while maintaining foot contact with the rest of the group. Thinking is required to come up with ways to get *everybody up*.

Scout Pace Contest

Equipment: Watch with a second hand

How to play: Players will complete a 1-mile course in exactly 12 minutes, traveling in pairs and using the Scout pace (50 steps running, 50 steps walking). Select a turning point that is half a mile from the meeting place, or have players go as many times around the same area as needed to make a mile. Space the pairs apart at two-minute intervals.

Scoring: The pair that finishes closest to 12 minutes (more or less) wins.

The Leaking Backpack

Equipment: Paper and pencils; various camping items that could have fallen out of a backpack: compass, map, flashlight, piece of fishing line, matchbox, soap, comb, sock, spoon, toothbrush, toothpaste

How to play: Arrange the items not too conspicuously along one side of a path. The entire unit walks slowly along the trail in single file, silently looking for stray articles but not stopping or turning back at any time. Once they have passed all the items, each team huddles and compiles a list of everything they saw in the correct order.

Scoring: The team with the most complete list wins. If desired, teams can then arrange their list in order of how important the items would be to a lost camper.

Walking Race

Equipment: A safe, long-distance walking area with enough room for all players to walk alongside each other; judges to disqualify those who run instead of walk

How to play: A walking race differs from running in that one foot must be in contact with the ground at all times.

Scoring: See which player can reach the finish line first without running.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Teach the principles of Leave No Trace.
- Explain how to stay clean in the backcountry.
- Explain backcountry bathroom techniques.
- Discuss the requirements for the Backpacking merit badge, Leave No Trace Award, and 50-Miler Award.
- Discuss how to deal with potential backcountry dangers, such as bears.

DEMONSTRATE

- Demonstrate proper hiking techniques.
- Run a show-and-tell with different types of backpacks.
- Show how to pack a backpack.
- Show how to light a backpacking stove.
- Teach Scouts how to properly treat water from a stream or lake.

GUIDE

- Conduct a shakedown of backpacks.
- Have Scouts cook a backpacking meal and clean their dishes while you watch.
- Guide Scouts as they pack their individual and group gear.
- On an outing, point out Leave No Trace errors Scouts make, such as avoiding muddy spots and thereby widening the trail.

ENABLE

- Have Scouts practice determining directions to landmarks. (See the chapter on navigation in the *Boy Scout Handbook*.)
- Have each patrol or team distribute the crew gear it would need for a backpacking trek, balancing weight and space.
- On an outing, let Scouts choose their own tent sites, and help them evaluate locations for appropriateness and adherence to Leave No Trace principles.
- Have Scouts make posters illustrating Leave No Trace principles.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Overnight Activity
Shakedown hike—Take a day hike in your area to practice backpacking techniques and explore interesting places. Whet your Scouts' appetites for bigger adventures.	Backpacking overnighter—Plan an overnight campout to practice backpacking techniques and explore nature. This could be a practice trip for a trek of a week or longer.	Backpacking trek—Take a backpacking trip lasting a full weekend or longer. The unit could travel to a BSA high-adventure base, a national park or forest, or even a destination such as the Appalachian Trail or Pacific Crest Trail.

BACKPACKING

Meeting Plan: Personal Gear

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	• Have several types of backpacks on hand for Scouts to look at and try on. • Point out the advantages and disadvantages of external- and internal-frame packs.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Outdoor Code		7 p.m.
Group Instruction 10 minutes	Explain and practice hiking techniques that help reduce fatigue, such as finding a comfortable pace and swinging your arms in opposition to your legs.		7:10 p.m.
Skills Instruction 40 minutes	• Teach Scouts how to properly pack a backpack. • Demonstrate that a backpack is a bag of bags, and show where to pack items based on priority (e.g., raingear on top).		7:20 p.m.
	• Practice hiking around the parking lot with full packs. • Stop every few minutes to adjust straps and redistribute weight. • Discuss why it's important to move weight from your shoulders to your hips.		
	• Demonstrate ultralight backpacking gear. • Use catalogs or go online to research brands and costs. • Discuss which items represent good values based on cost and weight savings.		
Breakout Groups 15 minutes	• Discuss plans for the main event. • Review what personal equipment will be needed. • Make plans for borrowing, renting, or buying equipment members don't have.		8 p.m.
Game 10 minutes	Play the Leaking Backpack. (See *Troop Program Resources*.)		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

BACKPACKING

Meeting Plan: Crew Gear

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a model backpacking campsite.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Outdoor Code		7 p.m.
Group Instruction 10 minutes	• Brainstorm techniques for saving weight when backpacking. • Talk about which techniques make sense and which ones don't.		7:10 p.m.
Skills Instruction 40 minutes	• Teach Scouts how to fuel and light a backpacking stove. • Cover safety rules, local laws, and rules of the venue. • Discuss how to shield the stove from the wind.		7:20 p.m.
	• Inventory and examine crew gear. • Make any needed repairs. • Cut ground cloths from heavy plastic sheeting.		
	• Using maps of your proposed main event location, determine starting and ending points for each leg of the journey. • Look for likely campsites and water sources. • Be sure to take into account terrain and hikers' abilities as you determine mileages.		
Breakout Groups 15 minutes	• Discuss plans for the main event. • Make a list of what crew gear you will need for the main event. • Determine what you have and what you need to borrow or check out from the quartermaster.		8 p.m.
Game 10 minutes	Conduct a walking race. See which Scout can reach the finish line the fastest without running.		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

BACKPACKING

Meeting Plan: Backpacking Food

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Cook several trail meals and desserts and let Scouts sample them as they arrive.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Outdoor Code		7 p.m.
Group Instruction 5 minutes	• Explain the concept of the "Bearmuda Triangle" used to increase safety in bear country. • The cooking area, cleanup area, and bear-bag area are the points of the triangle. • The crew tarp is within the triangle, and tents are at least 50 feet away. • All "smellables" stay within the triangle.		7:10 p.m.
Skills Instruction 45 minutes	Cook a backpacking meal.		7:15 p.m.
	• Create a menu for the main event. • Make a shopping list based on the number of participants. • Assign someone to shop for or order the food.		
	• Take a field trip to a nearby grocery store. • Research ordinary food items that could be used instead of backpacking food. • Discuss ways to repackage food to save space and weight.		
Breakout Groups 15 minutes	• Review plans for the main event. • Decide who will carry which pieces of crew gear. • Assign tent partners so they can divide up tent parts (tent to one partner, tarp and poles to the other).		8 p.m.
Game 10 minutes	Run a Scout Pace Contest. (See *Troop Program Resources*).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

BACKPACKING

Meeting Plan: Leave No Trace

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	• Have participants bring their packed backpacks. • Hold a weigh-in, and calculate the percentage of body weight each pack, including water and crew gear, represents (should be no more than 25 percent).		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Outdoor Code		7 p.m.
Group Instruction 10 minutes	Have leaders or special guests talk about the worst Leave No Trace violations they have ever seen and how those violations affected their outdoor experiences.		7:10 p.m.
Skills Instruction 40 minutes	• Assign members to learn about different Leave No Trace principles, found in the *Boy Scout Handbook* and *Fieldbook*. • After a few minutes, have the members teach each other what they learned.		7:20 p.m.
	• Quickly review the principles of Leave No Trace. • Using the Start, Stop, Continue technique, discuss how well your group follows those principles.		
	Discuss an ethical dilemma related to Leave No Trace. (See http://scoutingmagazine.org/2012/04/lead-an-ethics-debate-on-leave-no-trace-values/ for an example.)		
Breakout Groups 15 minutes	Do a shakedown of each member's packed backpack to make sure everyone has the right gear.		8 p.m.
Game 10 minutes	Play Everybody Up. (See *Troop Program Resources*.)		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

BACKPACKING

Main Event: Shakedown Hike

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Take a day hike in your area to practice backpacking techniques and explore interesting places. Whet your Scouts' appetites for bigger adventures.

Equipment List	• Trail or topographic maps • Backpacks • Backpacking stoves • Backpacking food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Find a location from which you can take two easy round-trip hikes of two or three miles each. • After a brief shakedown, take the first hike. • Back at the starting point, prepare lunch. • Use the Start, Stop, Continue technique to discuss the morning hike. • Give Scouts time to reorganize their packs, redistribute crew gear, and leave behind unneeded items. Then take the second hike.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea. • Special concerns in backpacking include getting lost, blisters, dehydration, and the use of untreated water.

Notes

BACKPACKING

Main Event: Backpacking Overnighter

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Plan an overnight campout to practice backpacking techniques and explore nature. This could be a practice trip for a trek of a week or longer.

Equipment List	• Trail or topographic maps • Backpacks • Backpacking stoves • Backpacking food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Determine a location for the overnighter and secure any necessary permits. • Acquire and study topographic maps of the area. • Travel to a trailhead on Friday evening and hike a mile or two to a campsite. • Hike all day Saturday and have drivers pick up the group at the end of the trail. • If drivers will also be hiking, ferry one or more cars to the pick-up point on Friday night. • Plan a service project along the way, such as picking up trash or repairing damage caused by previous hikers.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea. • Special concerns in backpacking include getting lost, blisters, dehydration, and the use of untreated water.

Notes

BACKPACKING

Main Event: Backpacking Trek

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend or longer

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Take a backpacking trip lasting a full weekend or longer. You could travel to a BSA high-adventure base, a national park or forest, or even a destination like the Appalachian Trail or Pacific Crest Trail.

Equipment List	• Trail or topographic maps • Topographic maps • Backpacks • Backpacking stoves • Backpacking food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• If the group is not experienced in backpacking, recruit an expert to lead the trek, or arrange to attend a high-adventure base run by the BSA or a local council. • Determine a location for the trek, and secure any necessary permits. • Acquire and study topographic maps of the area. • Look for opportunities for side hikes to points of interest. (These could be optional, allowing more-experienced hikers to log more miles.) • Plan in-camp activities (games, advancement work, nature study, etc.) to alleviate boredom. • If pursuing the 50-Miler Award, plan to conduct 10 hours of conservation work during the trek (or soon afterwards). • Leave a detailed itinerary with adults who are staying behind. • Over several days, hike from the starting point to the ending point.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea. • Special concerns in backpacking include getting lost, blisters, dehydration, and the use of untreated water.

Notes

REFERENCES

Books

Backpacking and *Hiking* merit badge pamphlets

Boy Scout Handbook

Fieldbook

Websites

***Backpacker* Magazine**
Website: http://www.backpacker.com

Trails.com
Website: http://www.trails.com

Related Program Features

Camping, Geocaching, Hiking, and Orienteering

Photo and Illustration Credits

Pages 18-1 (*matches,* BSA file; Shutterstock.com, courtesy: *backpacker,* ©Florin Stana; *hiking equipment,* ©EloPaint; *hat,* ©Michaelpuche; *sleeping bag,* ©Konjushenko Vladimir), 18-2 (BSA file), 18-3 (*backpackers,* BSA/Brian Payne; *clothing, rain gear, flashlight, and boots,* BSA file; *backpack,* Omega Studios), 18-4 (illustrations, BSA/John McDearmon), and 18-5 (Shutterstock.com, courtesy: *stopwatch,* ©edel; *soccer ball,* ©pnDI)

Acknowledgments

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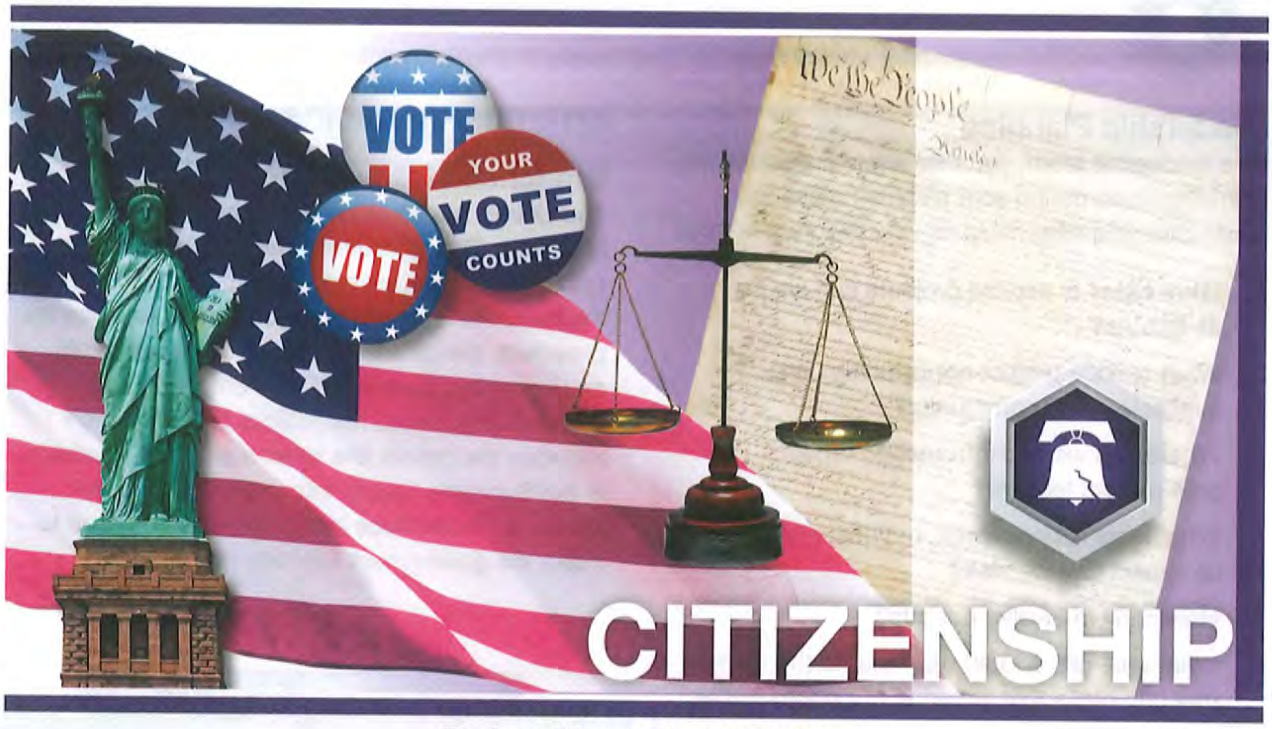


Doing Your Civic Duty

What does it mean to be a citizen? You are automatically a citizen of the country where you were born, but most would agree that being a good citizen takes more effort. People often talk about the rights they cherish as citizens, such as freedom of speech and the right to bear arms, but those rights are balanced by responsibilities, such as voting and paying taxes. Every opportunity you have to provide service to your country, whether through the military, political office, or community projects, strengthens our nation. The more you learn about citizenship, the better you can do your duty to your country, as the Scout Oath requires.

Objectives

This month's activities should:

- Help Scouts give back to their community.
- Give Scouts a better understanding about how the government works.
- Teach Scouts about their local, state, and national government leaders.
- Demonstrate how the election process works.
- Let Scouts experience how Congress passes laws.
- Let Scouts visit a national or state park, historical monument, state capitol, or the U.S. Capitol.

RELATED ADVANCEMENT AND AWARDS

- First Class requirement 5
- Citizenship in the Community merit badge
- Citizenship in the Nation merit badge
- Citizenship in the World merit badge
- Discovery Award service requirement
- Discovering America Varsity Scout activity pin

Leadership Planning

As a leadership team, you may want to discuss the following items during your planning meetings when choosing citizenship as your program feature:

1. What types of service projects can we do as Scouts?
2. What service project opportunities are available in the community?
3. Where can we find information on our government leaders?
4. What local national park, national monument, or capitol can we visit?
5. How can we involve parents?
6. What changes should we make to the sample meeting plans that would fit our needs better?

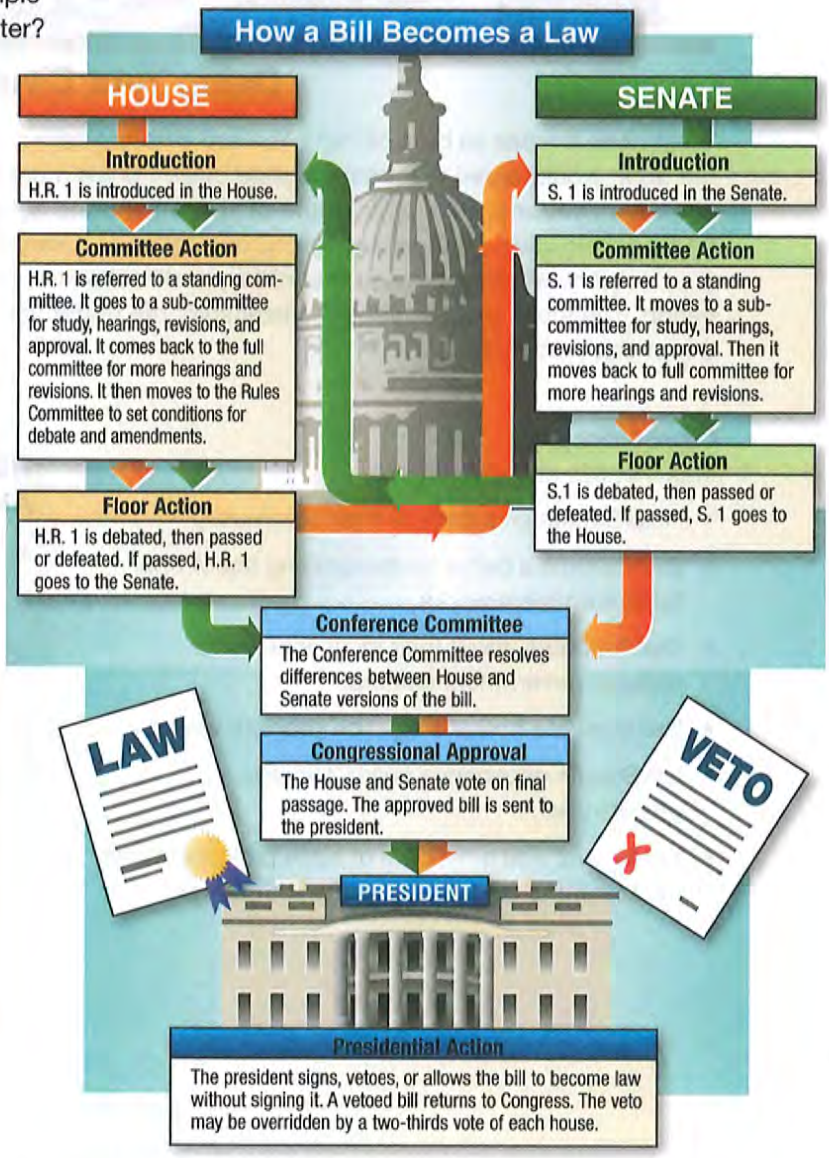
CITIZENSHIP BASICS

Branches of Government

The United States government has three branches. The legislative branch, which includes the Senate and House of Representatives, makes the laws. The executive branch, which includes the president, the cabinet, and various departments and agencies, is charged with enforcing and administering laws. The judicial branch, which includes the courts (the most significant of which is the Supreme Court), interprets and applies the laws. These three branches work together to make the government function properly.

PARENTS CAN HELP WITH THE CITIZENSHIP PROGRAM FEATURE BY:

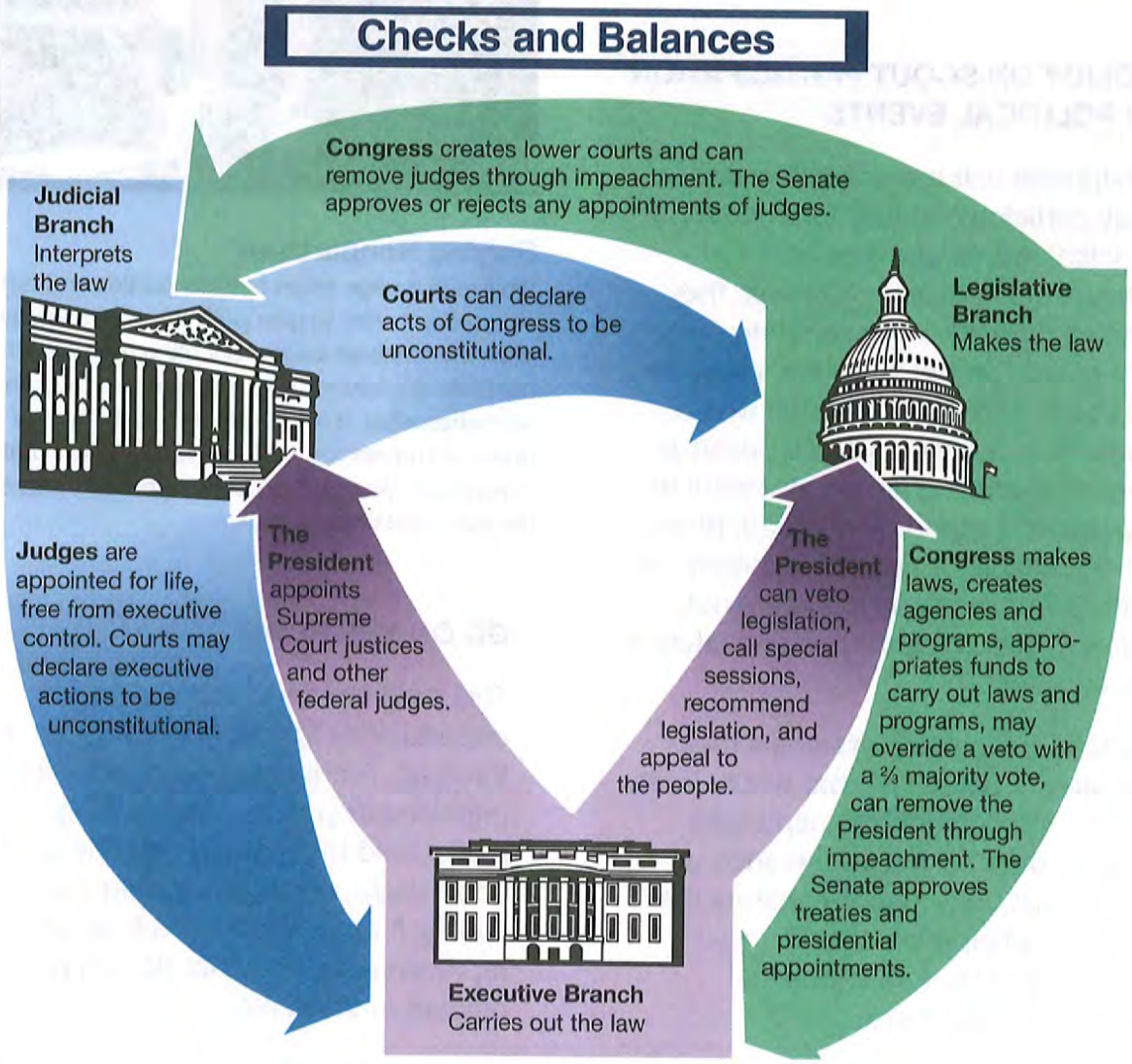
1. Arranging visits to government offices or meetings with government officials
2. Providing transportation for activities
3. Talking about how and why they vote
4. Teaching about various levels of government
5. Giving a firsthand account of major court cases that have affected their lives
6. Helping organize and lead the games



State and local governments—and even nonprofit organizations—often use a similar three-branch structure for their own governance.

Checks and Balances

To make sure that one branch of the government does not become too powerful, a system of checks and balances exists in our country. This system allows for each branch of the government to "check" the others, keeping the power of each branch balanced with the others. Some people think the president has the most power in the government, but that is not true. Each branch is equally powerful and can call for a "check" on another branch at any time if it considers the actions of another branch unconstitutional.



Community Service

Community service is a selfless act that benefits the people or area around you, and it is a key part of the Scouting program. Various advancement requirements involve doing community service, giving back to an organization, or completing a project for your neighborhood. Think about all of the community service hours you have completed thus far in your Scouting career—you probably have a lot! Community service shows that you care about others and are willing to help. Giving back and taking care of your community is part of being a good citizen. Don't take for granted the democracy and freedoms we have in this country—community service is an effective way to show appreciation for the gifts of citizenship, freedom, and democracy we all enjoy as Americans.

POLICY ON SCOUT PARTICIPATION IN POLITICAL EVENTS

Uniformed unit members and leaders may participate in flag ceremonies at political events and may lead the Pledge of Allegiance; however, they should retire after the ceremony and not remain on the speakers' platform or in a conspicuous location where attendees or viewers could construe their presence as an endorsement or symbol of support. In addition, photos of candidates or Scouts in uniform or with BSA marks and logos are not allowed in political campaign materials of any kind.

Volunteers and professionals must be alert to situations that would imply BSA favoritism for one candidate over another. Strict observance of our longstanding policy against the active participation of uniformed Scouts and leaders in political events is mandatory.

Staying Nonpartisan

We live in an age when political parties and outside groups seek to gain political advantage over even the smallest issues. Scouting remains strictly nonpartisan, however. As you discuss government and citizenship, it is important to focus on the process and not the politics. Keep in mind that everyone in your unit doesn't necessarily share the same political views.

GO ON THE ROAD

This program feature offers great opportunities to take your program on the road. Rather than holding weekly meetings at your regular meeting place, hold them at city hall, the local courthouse, or another government facility. If possible, involve elected representatives or other government officials in teaching.

CITIZENSHIP GAMES

Mock Election

Equipment: Poster board and craft supplies (optional), paper for ballots, a ballot box, pens for voting

Method: Each team selects one member to run for president of the made-up land or country of your choosing (e.g., Candy Land, Country of Sandwich). Each candidate can make a quick campaign poster to display while they present a one-minute speech about the issues on which they are running. Everyone is given a ballot and selects the candidate who they think would best represent the land or country. Each team takes a turn to place their votes in the ballot box. After all of the votes have been cast, count up the ballots, and announce the newly elected president.

Scoring: The candidate with the most votes wins the presidency.

Notes: Review the Electoral College and point out the differences between the popular vote, which was exhibited in the game, and the Electoral College.

Guess the President

Equipment: Facts about famous U.S. presidents

Method: The teams assemble in different corners and are informed that they will be visited by a famous president shortly. They must try to figure out his identity by asking him questions. The famous visitor can answer only with yes or no. The game leader assigns a presidential identity to each team leader (e.g., George Washington, Thomas Jefferson, Teddy Roosevelt, Abraham Lincoln). The team leaders go to their corners, and the teams begin questioning.

Scoring: The first team to identify its visitor correctly receives 1 point. After a set number of rounds, the team with the most points wins.

Bill to Law

Equipment: Poster showing the steps a bill takes to become a law (optional), paper and pens (to record ideas for new law)

Method: Divide into two teams (to represent the two houses of a bicameral legislature). Have each team create a new law for an imaginary country, making sure they follow the bill-to-law process for their respective chamber. After the team passes its new law, teams should trade laws, and try to pass each bill again. Once a bill has been approved by both teams, it is sent to the designated leader (president) for approval or veto.

Scoring: No scoring for this activity.

Notes: Explain the bill-to-law process (with a poster or other visual aid) before you start the activity. Have assistant leaders help each team go through the steps of the bill-to-law process.

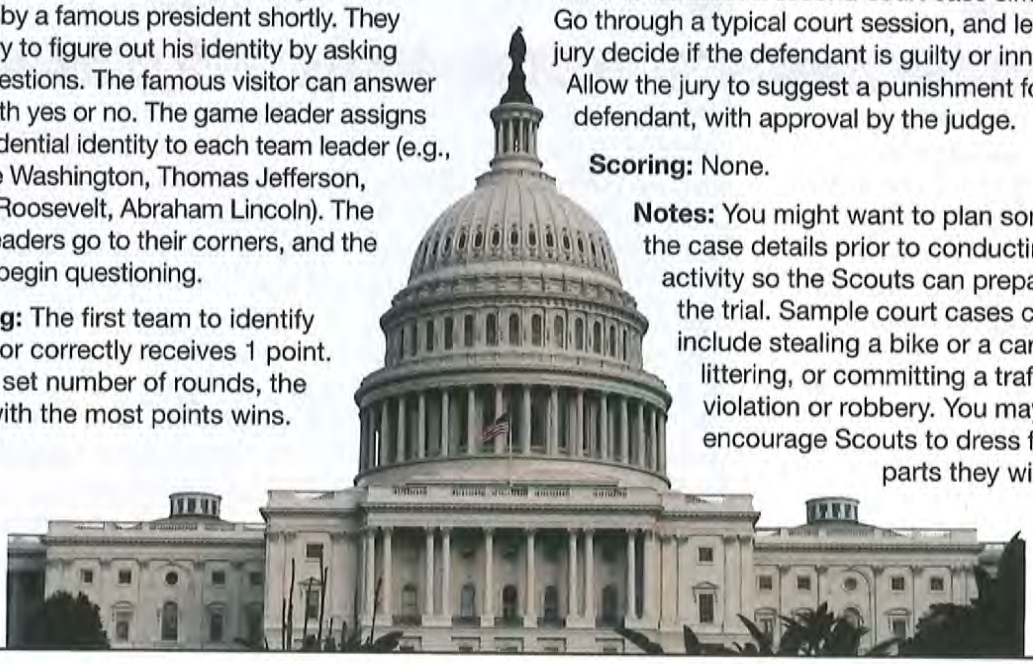
Mock Court Case

Equipment: Tables for the judge, prosecution, defense, witnesses, and jury; gavel (or an effective substitute) for the judge

Method: Decide on a judge, two lawyers, a defendant, a few witnesses, and a jury for the court case. All other Scouts will be observers in the courtroom, or you can take them to another room to conduct a second court case simulation. Go through a typical court session, and let the jury decide if the defendant is guilty or innocent. Allow the jury to suggest a punishment for the defendant, with approval by the judge.

Scoring: None.

Notes: You might want to plan some of the case details prior to conducting this activity so the Scouts can prepare for the trial. Sample court cases could include stealing a bike or a car, littering, or committing a traffic violation or robbery. You may encourage Scouts to dress for the parts they will play.



E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain why we need the government.
- Describe the election process.
- Teach how bills become laws.
- Compare and contrast forms of government from the city to the federal level.

DEMONSTRATE

- Demonstrate how voting takes place.
- Tour a government facility.
- Use visual guides to demonstrate the bill-to-law process.
- Show a video explaining how the Electoral College works.

GUIDE

- Guide Scouts through a mock election.
- Help Scouts look up the names of their elected representatives.
- Have Scouts brainstorm ideas for community service projects.
- Plan a debate on an issue facing your community or the country.

ENABLE

- Enable the Scouts to hold a unit election.
- Empower the Scouts to plan and conduct a meaningful service project for the community.
- Allow Scouts to enact new "laws" for your unit.
- Have Scouts teach a Webelos den what they've learned.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Overnight Activity
Community service project—Complete a meaningful community service project in your city. Work with the city, county, or other community leaders to find a project that your unit can help with.	Park or historic site visit and service project—Visit a national or state park or a historical monument near you. Learn the site's history and historical significance. Contact the appropriate administrator to inquire about service project opportunities, and then carry out that service. Plan a campout to explore the history of the area and provide a service project.	State capital legislative visit and committee testimony—Provide service to your state by researching an issue of interest to the group that is the topic of an upcoming legislative committee meeting. Draft a response, and present it to your representatives as appropriate on a visit to your state capital. If possible, members of the group could testify to the appropriate committee, even presenting opposing testimony should opinions differ. If significant travel is required, plan on camping as appropriate.

CITIZENSHIP

Meeting Plan: Government and the Rights of Citizens

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	If you have Internet access at your meeting place, encourage Scouts who arrive early to view videos of U.S. presidents. Use sites such as: • http://www.havefunwithhistory.com/HistorySubjects/AmericanPresidents.html		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Present the three branches of government and how they work. • Discuss the rights of every U.S. citizen.		7:10 p.m.
Skills Instruction 30 minutes	• Discuss how the U.S. government works (including the three branches of government) and how that compares with your local government. • Use the Internet or other resources to learn about your federal representatives.		7:20 p.m.
	• Discuss the structures of your city, county, and state governments and how they work together. • Using the Internet or other resources, learn about your state and local representatives.		
	• Discuss the structures of government from the city level to the national level. • Using the Internet or other resources, learn about your local, state, and federal representatives.		
Breakout Groups 15 minutes	• Review the election process. • Decide who from your group will run for president in a mock election. • Make a poster, and develop a slogan for your candidate's speech.		7:50 p.m.
Game 20 minutes	Hold a mock election (described earlier).		8:05 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

CITIZENSHIP

Meeting Plan: Roles and Responsibilities of Citizens

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have a merit badge counselor on hand to help Scouts with the Citizenship in the Community, Citizenship in the Nation, and Citizenship in the World merit badges.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Present and lead a group discussion on responsibilities of citizens, including: • Supporting and defending the Constitution • Staying informed on issues • Respecting and obeying laws		7:10 p.m.
Skills Instruction 45 minutes	Discuss the responsibility of actively participating in the community and how individuals can carry out this responsibility.		7:15 p.m.
	Discuss the importance of voting and participating in the democratic process.		
	Discuss the responsibility of paying income and other taxes honestly and on time, and learn how taxes are filed.		
Breakout Groups 15 minutes	• Begin planning participation in the main event. • Work on advancement requirements as needed.		8 p.m.
Game 10 minutes	Play Guess the President (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

CITIZENSHIP

Meeting Plan: The Forming and Enforcement of Laws

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Find a printable U.S. Constitution quiz online, and print copies. Challenge Scouts to complete it before the meeting starts. Award prizes to those who do the best.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Review how Congress creates laws. • Discuss the roles of the executive and judicial branches in terms of the laws Congress creates.		7:10 p.m.
Skills Instruction 20 minutes	Discuss some laws that are specific to your city.		7:20 p.m.
	• Discuss law enforcement and how laws are enforced. • Learn how people accused of crimes are taken into the justice system.		
	• Explain the bill-to-law process by using diagrams, videos, etc. • Talk about some recent laws that have been passed by Congress. • Review the Bill of Rights (the first 10 amendments to the Constitution).		
Breakout Groups 15 minutes	• Discuss some amendments that you think should be added to or taken away from the U.S. Constitution, and explain why. • Pick the one you think is most important, and explain why.		7:40 p.m.
Game 30 minutes	Play Bill to Law (described earlier).		7:55 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

CITIZENSHIP

Meeting Plan: Citizens and the Courts

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have copies of the U.S. Constitution on hand. Encourage Scouts who arrive early to read the Preamble and find the six functions of government listed there. Discuss how these functions affect families and communities.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Learn the differences between the federal and state courts, and how they interact. • Discuss the roles of the prosecution, defense counsel, judge, and jury. Explore other professions in the courtroom.		7:10 p.m.
Skills Instruction 30 minutes	• Explain and discuss the differences between criminal and civil trials. • Discuss the benefits afforded by the U.S. courts, such as fair and speedy trials and the presumption of innocence.		7:20 p.m.
	• Explain and discuss how the Supreme Court checks the power of the other branches. • Research and review major court cases decided on by the Supreme Court.		
	• Review some of the most controversial court cases of the Supreme Court, such as Dred Scott, Brown v. the Board of Education, Miranda v. Arizona, and others. • Debate whether the court made the right ruling.		
Breakout Groups 10 minutes	• Talk about the ways Supreme Court cases affect your life today. • Finalize plans for participation in the main event.		7:50 p.m.
Game 25 minutes	Hold a mock court case (described earlier).		8:00 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

CITIZENSHIP

Main Event: Community Service Project

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4–6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Complete a meaningful community service project in your city. Work with city, county, or other community leaders to find a project with which you can provide help.

Equipment List	• Appropriate tools and supplies to complete the project • Lunch (determine whether group or individual) • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Contact community leaders to determine available service projects. • Determine a time and place to transport to the location. • Complete the task as assigned. • Break for lunch. • Clean up appropriately. • Follow up with community leader to make sure the project was completed acceptably.
Safety	• Assign tools to appropriate age groups. • Use gloves, safety glasses, and ear protection as appropriate. • Follow BSA guidelines for service projects, tool use, and work at elevations or excavations. • Have a cell phone available for emergencies.

Notes

CITIZENSHIP

Main Event: Park or Historic Site Visit and Service Project

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 6–8 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Visit a national or state park or a historical monument near you. Learn the site's history and historical significance. Contact the appropriate administrator to inquire about service ideas, then carry out that service. Consider incorporating a campout to explore the history of the area.

Equipment List	• Appropriate tools and supplies to complete the project • Food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Have unit decide what national or state park or historical monument will be visited and whether to incorporate camping. • Call the location, and determine availability for tours and/or camping. • Schedule a long day trip or a weekend trip, depending on location and how far it is from the majority of the Scouts. • Tour the park or site. • Complete a service project.
Safety	• Follow safe camping practices. • Use the buddy system. • Assign tools to appropriate age groups. • Use gloves, safety glasses, and ear protection as appropriate. • Follow BSA guidelines for service projects, tool use, and work at elevations or excavations. • Have a cell phone available for emergencies.

Notes

CITIZENSHIP

Main Event: State Capital Legislative Visit and Committee Testimony

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Provide service to your state by researching an issue of interest to the group that is the topic of an upcoming legislative committee meeting. Draft a response, and present it to your representative as appropriate on a visit to your state capital. If possible, members of the group could testify to the appropriate committee, even presenting opposing testimony should opinions differ. If significant travel is required, plan on camping as appropriate.

Equipment List	• A predetermined opinion on a legislative issue • Official uniforms for visit • Camping equipment • Food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Determine a legislative issue of interest. • Draft an opinion that can be presented to lawmakers. • Visit your state capital. • Arrange a tour of the Capitol and a meeting with your representative. • Testify to a committee if appropriate. • If significant travel is required, plan on camping as appropriate.
Safety	• Avoid inappropriate behaviors while in the Capitol. • Follow safe camping practices. • Use the buddy system. • Have a cell phone available for emergencies.

Notes

REFERENCES

Books

American Cultures, American Heritage, Citizenship in the Community, Citizenship in the Nation, Citizenship in the World, and *Law* merit badge pamphlets

Barbour, Christine. *Keeping the Republic: Power and Citizenship in American Politics*, 6th ed. CQ Press, 2013.

Bowman, Ann, and Richard C. Kearney. *State and Local Government*, 9th ed. Cengage Learning, 2012.

Greenberg, Edward S., and Benjamin I. Page. *America's Democratic Republic*, 4th ed. Pearson, 2010.

Kielburger, Marc, and Craig Kielburger. *Take Action! A Guide to Active Citizenship*. John Wiley & Sons Inc., 2002.

Krull, Kathleen. *A Kid's Guide to America's Bill of Rights: Curfews, Censorship, and the 100-Pound Giant.* William Morrow & Co., 1999.

Mackintosh, Barry. *The National Parks: Shaping the System.* National Park Service, 2005.

Rusch, Elizabeth. *Generation Fix: Young Ideas for a Better World.* Beyond Words Publishing Inc., 2002.

Schmidt, Steffen. *American Government and Politics Today,* 2013–2014 ed. Cengage Learning, 2013.

Websites

Federal Courts
Website: www.uscourts.gov

National Archives
Website: http://www.archives.gov

National Park Service
Website: http://www.nps.gov/index.htm

U.S. Government Portal
Website: http://www.usa.gov

U.S. House of Representatives
Website: http://www.house.gov

U.S. Senate
Website: http://www.senate.gov

U.S. Supreme Court
Website: http://www.supremecourt.gov

White House
Website: http://www.whitehouse.gov

Related Program Features

Camping, Duty to God, Ethics, Living History, and Mentoring

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Acknowledgments

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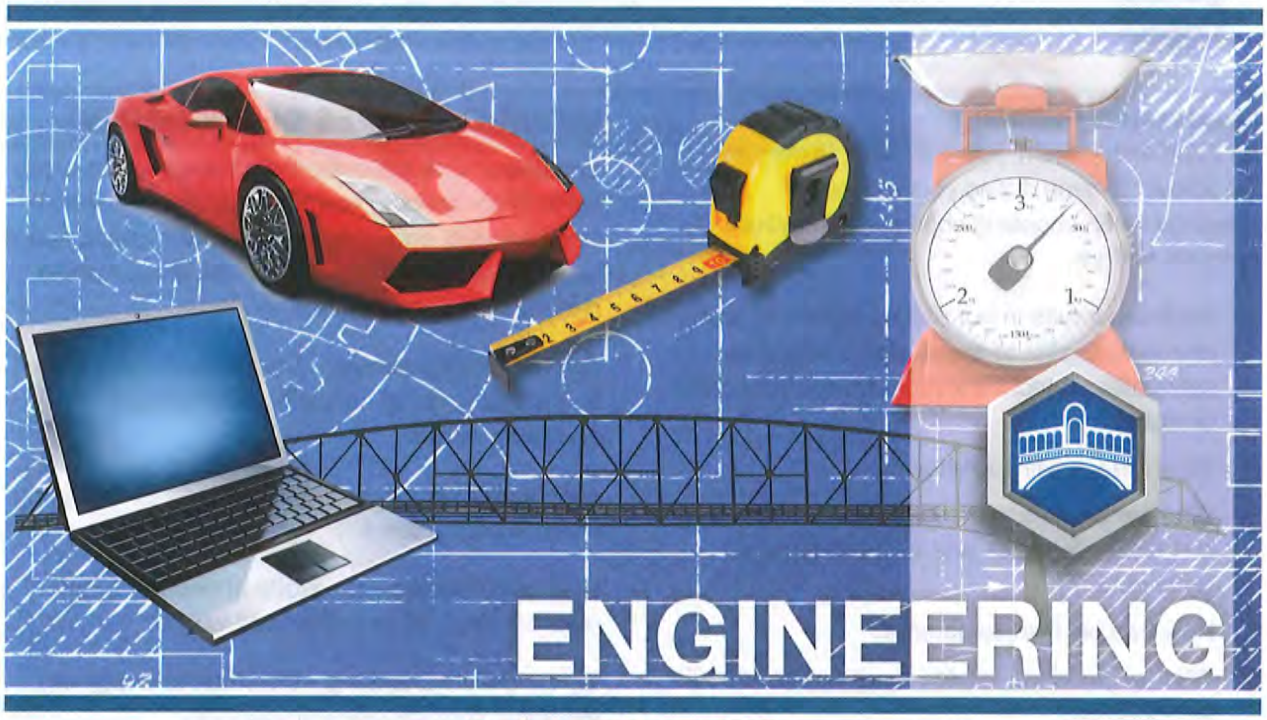


Building Our World

In 62 B.C., the people of Rome were faced with a problem: A wooden bridge spanning the Tiber River had been destroyed by fire, and they needed a way to reach Tiber Island. Their solution was to construct a new bridge, the Pons Fabricius, out of stone so the crossing could not burn down again. Believe it or not, that bridge is still in use to this day—and it isn't even the oldest in the world. Bridges like the Pons Fabricius are great examples of what engineers do every day.

Engineers work to solve the difficult problems that face our society. Whether it's building a bridge to cross a river, creating a new machine to manufacture cars, or fitting a huge amount of technology into a smartphone, an engineer's work can leave a lasting impact on society.

This month, Scouts will have the opportunity to learn about the different disciplines within engineering. The weekly meetings will be full of fun activities that enable Scouts to see firsthand the broad reach of this field across a variety of disciplines.

Objectives

This month's activities should:

- Define the different branches of engineering.
- Help Scouts understand what engineers do.
- Demonstrate key engineering concepts.
- Help Scouts understand the different career paths available to them.
- Demonstrate real-world applications of engineering principles.
- Encourage Scouts to earn the Nova and Supernova awards.

RELATED ADVANCEMENT AND AWARDS

- Architecture, Astronomy, Automotive Maintenance, Aviation, Chemistry, Composite Materials, Digital Technology, Drafting, Electricity, Electronics, Energy, Engineering, Entrepreneurship, Farm Mechanics, Game Design, Home Repairs, Inventing, Mining in Society, Model Design and Building, Nuclear Science, Pioneering, Programming, Robotics, Space Exploration, Surveying, and Welding merit badges
- Nova and Supernova awards

Leadership Planning

As a leadership team, you may want to discuss the following items during your planning meetings when choosing engineering as your program feature.

1. Are there adults in our unit who are engineers or might be able to speak about how they solve difficult technical problems at their place of work?
2. What videos will you show?
3. Who will be able to discuss mechanical, chemical, electrical, and civil concepts in great detail?
4. How can we involve parents?
5. What engineering-related merit badges should we focus on?
6. Is there an amusement park or carnival nearby?
7. Where will we host our main event?
8. Will the main event be an overnighter?
9. To meet our needs, what should we change in the sample planning meetings?

PARENTS CAN HELP WITH THE ENGINEERING PROGRAM FEATURE BY:

1. Sharing their expertise
2. Providing transportation and supervision for the main event
3. Providing materials for the different games and activities
4. Mentoring Scouts as they work on advancements

DIFFERENT TYPES OF ENGINEERS

Engineers work tirelessly to find solutions to problems. From building bridges to developing waterproof textiles, engineers can be found in just about every industry. Engineering can be broken down into four major branches:

Chemical engineering—the study of chemicals and the process of creating new materials and compounds

Mechanical engineering—the study of designing mechanical systems

Civil engineering—the study of designing and constructing public and private works

Electrical engineering—the study of designing electrical systems and components

SUBDISCIPLINES WITHIN THE ENGINEERING BRANCHES

Chemical Engineering

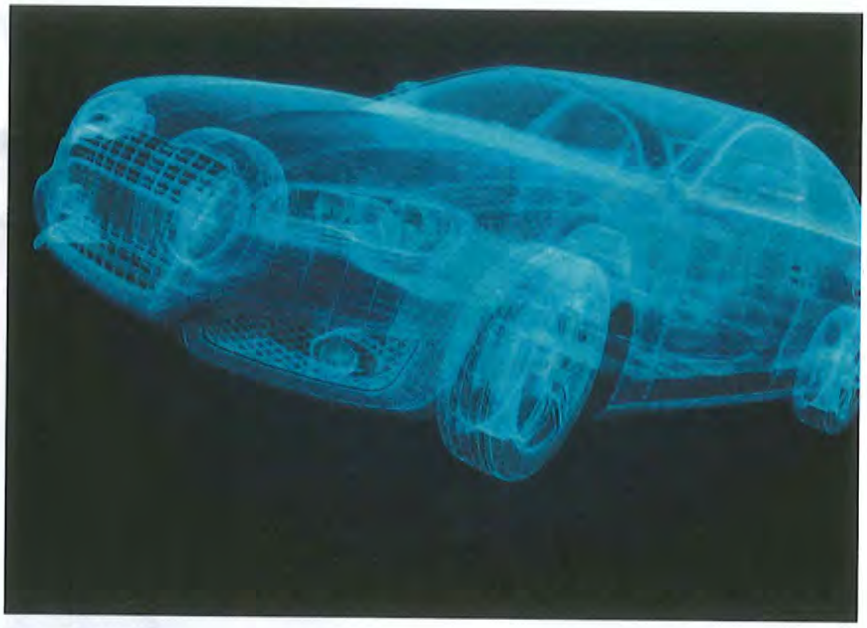
- Bioinformatics
- Biotechnology
- Cheminformatics
- Environmental engineering
- Fluid dynamics
- Molecular engineering
- Nanotechnology
- Polymer and plastics engineering
- Textile engineering

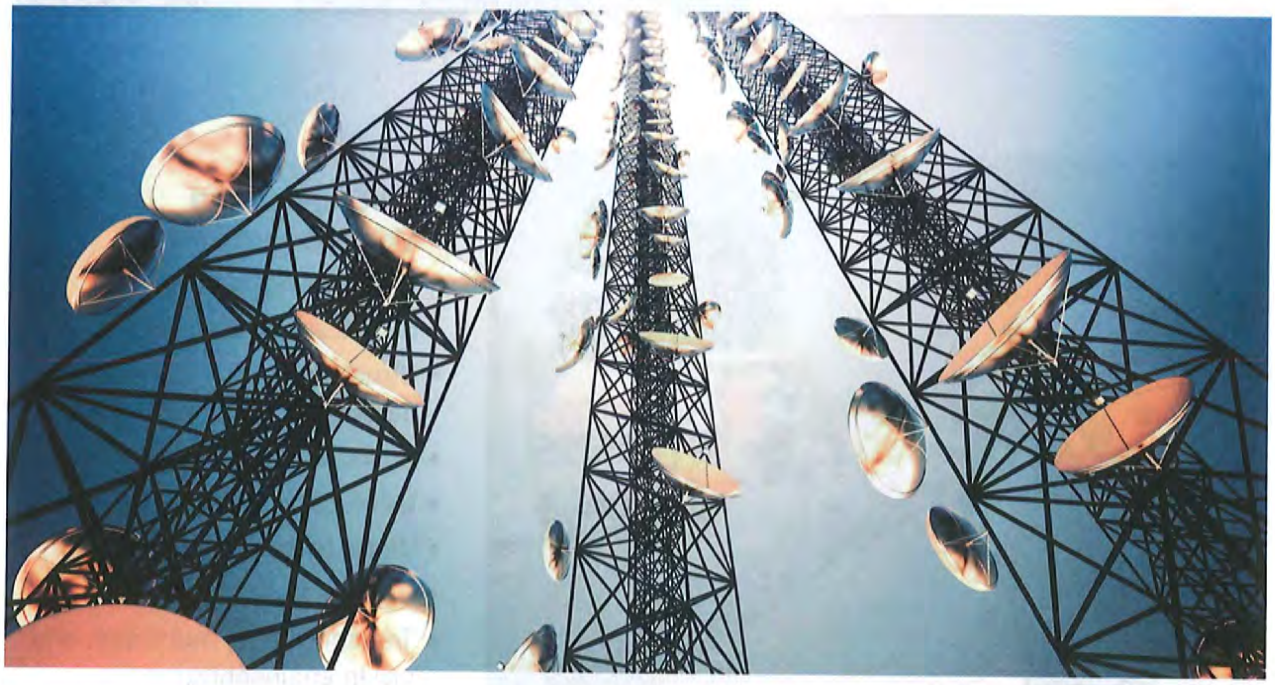
Civil Engineering

- Materials engineering
- Coastal engineering
- Construction engineering
- Structural and earthquake engineering
- Environmental engineering
- Geotechnical engineering
- Water resource engineering
- Surveying
- Transportation, municipal, and urban engineering

Mechanical Engineering

- Biomechanics
- Mechatronics
- Acoustical engineering
- Aerospace engineering
- Manufacturing engineering
- Automotive engineering
- Design and drafting





Electrical Engineering

- Power engineering
- Control engineering
- Electronic engineering
- Microelectronics
- Signal processing
- Telecommunications engineering
- Instrumentation engineering
- Computer engineering

ENGINEERING GAMES

Paper Tower

Equipment: Measuring tape, newspaper, clear tape

Method: Give each Scout two full sheets of newspaper and five minutes to construct a tower. The tallest tower that can stand longer than 30 seconds wins.

Variation: Follow the same instructions, but give each Scout 8 inches of clear tape. See how much taller the towers can become with this added support.

Parachute Races

Equipment: A plastic bag or lightweight fabric, scissors, string, a small object to act as the weight

Method: Give teams of Scouts five minutes to design a parachute for the weighted object. Explain that their objective is to create a parachute that is the last one to touch the ground when all are released from a given height.

Scoring: The last parachute to touch the ground wins.

Geocache Scavenger Hunt

Equipment: Two to three GPS units, prizes, paper, pen

Method: Before the meeting, hide prizes around your meeting area. With each prize, include the GPS coordinates leading to the next prize. Divide Scouts into the same number of teams as there are GPS units. Give each team the coordinates of the first prize. The first team to find all the items wins.

Hot Potato

Equipment: Effervescent tablets (like Alka-Seltzer), small balloons, water

Method: Have Scouts form a circle (preferably outdoors). Fill a small balloon with an inch of water, and drop a tablet into the water. You may need to break the tablet into pieces. Inflate the balloon, tie it shut, and pass it to a Scout. The objective of the game is to not be holding the balloon when it pops! Have Scouts pass the balloon to the person next to them. The person holding the balloon when it pops is eliminated. Start another balloon around the circle. The winner is the remaining Scout.

E.D.G.E. Ideas

Explain how it is done—Tell them.
Demonstrate the steps—Show them.
Guide learners as they practice—Watch them do it.
Enable them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Define what engineering is and its history.
- Discuss the major branches of engineering.
- Discuss how an engineer's work can be seen in everyday life.
- Show a video from the Internet that demonstrates how something is built using engineering techniques.

DEMONSTRATE

- Show a video of an engineering project underway.
- Invite a speaker, preferably an engineer, to visit your unit and discuss what he or she does and the types of problems he or she works to solve.
- Demonstrate how a simple circuit works.
- Demonstrate a chemical reaction. (Mentos candy in Diet Coke is always a hit.)
- Show how a dam can be used to generate electricity.
- Show how a combustion engine works.

GUIDE

- Have Scouts come up with various approaches to a problem while you supervise.
- Lead a reflection on the different activities Scouts have conducted.
- Watch Scouts design and build the various experiments, offering guidance throughout the process.
- Have Scouts assist in the planning of the main event.
- Help Scouts identify an opportunity to teach and mentor another person.

ENABLE

- Challenge Scouts to improve their problem-solving skills and to learn something new.
- Encourage older Scouts to mentor younger Scouts throughout the activities.
- Have Scouts watch engineering programs to get a better understanding of how things are designed and built.
- Encourage Scouts to talk with some adults about the different engineering-related career paths.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Day Activity	Day Activity
Amusement park observations—Visit an amusement park or carnival to demonstrate how the disciplines of engineering (mechanical, chemical, electrical, and civil) can create thrilling experiences. See if your unit can arrange for a park engineer to give a tour and explain how the various attractions were conceived and constructed. At the end of the day, have Scouts discuss their observations about different types of engineering work that went into the development of each attraction.	Amusement park design—Visit an amusement park or carnival, and have Scouts keep notes throughout the day on how they would improve the designs of the attractions. At the end of the day, lead a discussion on how the amusement park might incorporate the Scouts' improvements in future attraction designs. See if your Scouts can identify any significant differences (or similarities) between older and newer rides.	Amusement park experiments—Visit an amusement park or carnival when it is offering a "Physics Day." Have Scouts conduct a number of experiments on various rides. At the end of the day, have the Scouts share their observations with one another. Lead a discussion on how an amusement park integrates all the aspects of engineering.

ENGINEERING

Meeting Plan: Introduction and Civil Engineering

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play a video from a TV show such as "Modern Marvels" that demonstrates how a building or bridge is constructed. Alternatively, show a video of how a wastewater treatment plant operates. (Note: Shows such as "Modern Marvels" often post two- to three-minute videos on their websites.)		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss the following: • The definition of engineering • The different areas within engineering • The basics of civil engineering and the types of work these engineers do		7:10 p.m.
Skills Instruction 45 minutes	• Build a water filtration system. • Experiment with numerous materials to see which ones work best at cleaning the water. • Discuss how your local water treatment plant works.		7:15 p.m.
	• Build a model dam. Experiment with a number of materials and designs to determine which ones work better as the volume of water increases. • Discuss how dams are used to provide water and electricity to municipal areas.		
	• Build a cable-stayed bridge that is at least 3 feet long, 2 feet off the ground, and has three or more cables on each side of the tower. • Ensure the bridge is capable of holding up a few toy cars. • Discuss how cable length and the distances between cables help the deck of the bridge stand.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose an engineering-related merit badge or Nova Award to work on together. • Review the last main event, and discuss what could have made it better.		8 p.m.
Game 10 minutes	Play Paper Tower (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ENGINEERING

Meeting Plan: Chemical Engineering

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play a video from a TV show such as "How It's Made" that demonstrates how chemical reactions transform objects.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss the following: • The basics of chemical engineering and the types of work these engineers do • The definition of compounds, polymers, basics, and acids		7:10 p.m.
Skills Instruction 45 minutes	• Make some goo similar to the details listed at http://www.sciencebob.com/experiments/polymer.php. • Lead a discussion on polymers and the reaction you just witnessed.		7:15 p.m.
	• Build pop rockets and see which design goes the farthest. Use the experiment outline here: http://www.acs.org/content/dam/acsorg/education/whatischemistry/science-forkids/chemicalphysicalchange/chemicalreactions/pop-rockets.pdf. • Lead a discussion on the chemical reaction that causes the rockets to pop off the launch pad.		
	• Build a model rocket from a kit available at your local hobby store. Have Scouts experiment with different fin designs and engines. • Lead a discussion on the chemical reaction that is occurring within the rocket engine and how it is similar to or different from the engines used in modern spacecraft.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose an engineering-related merit badge or Nova Award to work on together. • Make plans for the main event.		8 p.m.
Game 10 minutes	Play Hot Potato (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ENGINEERING

Meeting Plan: Mechanical Engineering

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play a video from a TV show such as "Modern Marvels" that demonstrates how an engine works.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss the following: • The basics of mechanical engineering and the types of work these engineers do • Definition of drag, torque, hydraulics, and other mechanical systems		7:10 p.m.
Skills Instruction 45 minutes	Have Scouts build string telephones. Lead a discussion on sound waves and how sound is changed by objects such as water.		7:15 p.m.
	Build a Rube Goldberg machine and see which team of Scouts can come up with the wackiest way to accomplish an everyday task.		
	Calculate the mechanical advantage of a pulley. Discuss how pulleys and levers are used to construct a building or lift an elevator. A great example of a similar activity can be found at http://teachers.egfi-k12.org/lesson-pulleys.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose an engineering-related merit badge or Nova Award to work on together. • Make plans for participation in main event.		8 p.m.
Game 10 minutes	Play Parachute Race (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ENGINEERING

Meeting Plan: Electrical Engineering

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play a video from a TV show such as "How It's Made" that demonstrates how a computer is built.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	• Discuss the following: • The basics of electrical engineering and the types of work these engineers do • What a circuit is and what a resistor, diode, inductor, and capacitor do		7:10 p.m.
Skills Instruction 45 minutes	• Take apart a flashlight, and discuss the components that are used in it to complete the circuit. • Have Scouts assemble their own LED flashlight using an LED, tape, and a CR2032 battery.		7:15 p.m.
	• Disassemble a variety of broken electronics. • Explore how each is designed, the components utilized, and the similarities in design. • See if Scouts can diagnose the problem that may have caused the item to stop working.		
	• Have Scouts assemble their own USB charging kit. See http://www.makershed.com/product_p/mkad2b.htm.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose an engineering-related merit badge or Nova Award to work on together. • Finalize plans for participation in the main event.		8 p.m.
Game 10 minutes	Play Geocache Scavenger Hunt (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ENGINEERING

Main Event: Amusement Park Observations

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Day

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Visit an amusement park or carnival to demonstrate how the disciplines of engineering (mechanical, chemical, electrical, and civil) can create thrilling experiences. See if your unit can arrange for a park engineer to give a tour and explain how the various attractions were conceived and constructed. At the end of the day, have Scouts discuss their observations about different types of engineering work that went into the development of each attraction.

Equipment List	• Uniform as decided upon • Lunch (decide on individual or group) • Pen and paper for taking notes • Camera • Spending money • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Decide which amusement park, carnival, or fair your unit will visit. • If possible, see if a tour can be arranged with a park engineer who can discuss the design and safety measures of various rides. • Encourage Scouts to keep notes throughout the day on common engineering themes they see in the rides. • At the end of the day, have the Scouts share their observations with one another. Lead a discussion on how an amusement park integrates all the aspects of engineering.
Safety	Always use the buddy system. Have a cell phone and numbers available for emergencies. Keep a first-aid kit on hand, but also know where medical assistance is available. Don't forget the sunscreen.

Notes

ENGINEERING

Main Event: Amusement Park Design

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Day

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Visit an amusement park or carnival and have Scouts keep notes throughout the day on how they would improve the designs of the attractions. At the end of the day, lead a discussion on how the amusement park might incorporate the Scouts' improvements in future attraction designs. See if your Scouts can identify any significant differences (or similarities) between older and newer rides.

Equipment List	• Uniform as decided upon • Lunch (decide on individual or group) • Pen and paper for taking notes • Camera • Spending money • Equipment for experiments • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Decide which amusement park, carnival, or fair your unit will visit. • Have Scouts keep notes throughout the day on their suggestions for improving the designs of the rides. • At the end of the day, have the Scouts share their observations with one another. Lead a discussion on how the amusement park might incorporate the Scouts' improvements in future attraction designs. See if your Scouts can identify any significant differences (or similarities) between older and newer rides.
Safety	Always use the buddy system. Have a cell phone and numbers available for emergencies. Keep a first-aid kit on hand, but also know where medical assistance is available. Don't forget the sunscreen.

Notes

ENGINEERING

Main Event: Amusement Park Experiments

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Day

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Visit an amusement park or carnival when it is offering a "Physics Day." Have Scouts conduct a number of experiments on various rides. At the end of the day, have the Scouts share their observations with one another. Lead a discussion on how an amusement park integrates all the aspects of engineering.

Equipment List	• Uniform as decided upon • Lunch (decide on individual or group) • Pen and paper for taking notes • Camera • Spending money • Equipment for experiments • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Decide which amusement park, carnival, or fair your unit will visit. • Many amusement parks offer "Physics Day" experiments. Pick a few experiments for Scouts to conduct while on the rides. • Have Scouts fill out their experiment reports after each ride. Encourage Scouts to note throughout the day the many different kinds of engineering themes they see in the rides. • At the end of the day, have the Scouts present their results. Lead a discussion on the engineering principles they experienced throughout the day.
Safety	Always use the buddy system. Have a cell phone and numbers available for emergencies. Keep a first-aid kit on hand, but also know where medical assistance is available. Don't forget the sunscreen.

Notes

REFERENCES

Professional Organizations

Institute of Electrical and Electronics Engineers
Website: http://www.ieee.org/

American Society of Mechanical Engineers
Website: https://www.asme.org/

American Institute of Chemical Engineers
Website: https://www.aiche.org/

American Society of Civil Engineers
Website: http://www.asce.org/

Websites

DiscoverE
Website: http://www.discovere.org/

Engineers Week (Engineers Ireland)
Website: http://www.engineersweek.ie/

Engineering Science Fair Projects
Website: http://www.education.com/science-fair/engineering/

Civil Engineering: It's Everywhere!
Website: http://www.asceville.org/files/ASCE_civeng_7-8.pdf

Mechanical Engineering Career Information
Website: https://www.asme.org/career-education/k-12-students

Books

Architecture and Landscape Architecture, Astronomy, Automotive Maintenance, Aviation, Chemistry, Composite Materials, Digital Technology, Drafting, Eletricity, Electronics, Energy, Engineering, Entrepreneurship, Farm Mechanics, Game Design, Home Repairs, Inventing, Mining in Society, Model Design and Building, Nuclear Science, Pioneering, Programming, Robotics, Space Exploration, Surveying, and *Welding* merit badge pamphlets

Andrews, Beth. *Hands-On Engineering: Real-World Projects for the Classroom.* Prufrock Press, 2012.

Latham, Donna. *Bridges and Tunnels: Investigate Feats of Engineering With 25 Projects*. Nomad Press, 2012.

———. *Canals and Dams: Investigate Feats of Engineering With 25 Projects*. Nomad Press, 2013.

Moomaw, Sally. *Teaching STEM in the Early Years: Activities for Integrating Science, Technology, Engineering, and Mathematics.* Redleaf Press, 2013.

Television Shows

"How It's Made"
Website: http://www.sciencechannel.com/tv-shows/how-its-made

"Modern Marvels"
Website: http://www.history.com/shows/modern-marvels

"MythBusters"
Website: http://www.discovery.com/tv-shows/mythbusters

"Build It Bigger"
Website: http://www.sciencechannel.com/tv-shows/build-it-bigger

Related Program Features

Mathematics, Pioneering, Science, and Technology

Photo and Illustration Credits

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Acknowledgments

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Catch Me If You Can

Fishing is a delightful way to get outdoors, to match wits with nature, to spend time with your friends, and even to keep yourself fed. That doesn't mean fishing is always easy. You have to find the fish first and then know how to catch them—and that can vary due to the weather, the time of day, the time of year, and other factors. But when you outsmart the fish and reel in a champion, you will be hooked—no pun intended!—and you will want to keep coming back for more.

Scouting's founder, Robert Baden-Powell, was an avid fly-fisherman and a pioneer of "catch and release" fishing. He said, "When you catch your fish, do as I do—only keep those you specially want for food; put back the others the moment you have landed them." He also said, "Every Scout ought to be able to fish in order to get food for himself."

Fishing has been part of the Scouting program from the beginning. The Angling merit badge (now Fishing) was one of the very first merit badges, and more than 2 million Scouts have earned it since 1911. Today, Scouts can choose two different fishing-related badges: Fishing and Fly-Fishing.

Objectives

This month's activities should:

- Introduce basic fishing skills to Scouts who have limited exposure to fishing.
- Improve the fishing skills of Scouts at all levels of experience.
- Ensure that Scouts have a reasonable chance for success by teaching them how to find fish, how to fish for them, how to set a hook, and how to play fish to land them.
- Teach Scouts what equipment is needed, how to cast efficiently, how to rig their outfits effectively, and how to take proper care of all the gear.
- Introduce important knots, including where and why each is used.
- Teach Scouts how to release their catch or prepare it for cooking.
- Cover possible risks and health threats while fishing and how to deal with the most likely problems.
- Emphasize conservation and the role that no-trace guidelines play in sport fishing.

In 2002, Baden-Powell was inducted into the International Game Fish Association's Fishing Hall of Fame, an elite group that includes Isaak Walton and Ernest Hemingway.

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot requirement 2
- Second Class requirements 3a and 6
- First Class requirements 3, 9a, and 10
- Fishing, Fly-Fishing, and Fish and Wildlife Management merit badges
- Complete Angler recognition
- William T. Hornaday Award
- Ranger: Fishing and Fly-Fishing electives

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing fishing as your program feature during your planning meetings.

1. Where can we find qualified fishing instructors to teach during the weekly meetings? (Merit badge counselors or BSA-trained angling instructors would be ideal.)
2. Where is the best location for a fishing event?
3. What fishing equipment will we need, and where can we acquire it?
4. What rules and regulations apply in our area? Do Scouts need fishing licenses?
5. What lures or bait should we use to attract the fish that live in our selected fishing location?
6. How will we prepare for the expected weather conditions?

PARENTS CAN HELP WITH THE FISHING PROGRAM FEATURE BY:

1. Sharing their fishing equipment, lures, boats, etc.
2. Providing expertise in instruction at weekly meetings and assistance and leadership on the fishing trip
3. Helping to identify good fishing locations
4. Helping to find good fishing talent to provide quality instruction
5. Contacting your state aquatic resource education coordinator, who may provide equipment, supplies, and perhaps instructors
6. Providing transportation for the main event

HOW TO CATCH AND HANDLE FISH

Where to Fish

To identify good fishing locations, visit a local tackle store, or talk with fishermen you know. You can also find destinations through the Take Me Fishing website, www.takemefishing.org. Just look for the "Places to Boat and Fish" section.

Fishing Gear

The gear you will use depends on where you choose to fish, the type of fish you want to catch, and the kind of equipment you can get. To get recommendations, contact local fish and wildlife agencies, tackle stores, and talk to friends or neighbors who fish. Your Scout camp may offer equipment, but it may be incomplete, so pre-checking and repairing may be needed. Many families own fishing gear you might be able to borrow, and some state and local agencies have equipment they will loan. Just be sure to return gear in better shape than you receive it.

How to Detect a Strike and Set the Hook

If you are using live bait such as worms or artificial bait like Gulp or PowerBait, cast your line into the water, let the bait sink, and wait for the fish to take it. When you see the line move unnaturally (not with the current), a fish is taking the bait. Raise the rod tip sharply with a short tug. You should also feel the strike in the rod and see the rod tip bend, if only slightly. Set the hook in the same manner, and then the fight begins.

If you are using a lure that imitates a minnow, leach, frog, or other similar bait, you must cast it out and make the lure swim. You will retrieve the line by reeling it back toward you. This can be done slowly, somewhat intermittently, or rather fast. Different fish respond differently to the retrieve; some study and practice will reveal the best method.

How to Play and Land a Fish

The object is to bring the fish to you as quickly and efficiently as possible without having it break your line or unhook itself. It is important not to allow too much slack. The fish will determine how you need to play it. Keep the rod tip high as the flexibility of the

rod will absorb the bursts of pressure the fish brings. If the fish is strong enough to take the line out, set the reel's drag system to keep tension but still let the line go off the reel without breaking. As the fish tires a bit, begin to reel it in until it makes another run. This is called playing the fish. Once you have control, either net it or bring it on the bank.

How to Remove the Hook and Release a Fish Safely

To handle a fish you wish to release, first wet your hand. Hold the fish gently, remove the hook, and get the fish back into the water quickly. You may need to hold the fish in the water facing forward and into the current, and move it back and forth gently to force water through its gills. It will then swim from your hand.

To learn how to clean and cook a fish, refer to the *Fishing* merit badge pamphlet.

Staying Safe While Fishing

1. Health and safety for Scouts is a no-brainer.
2. Always use the buddy system.
3. Let others know where you are fishing and when you will meet or return.
4. Dress appropriately for the weather.
5. Be observant to ensure that no one is in harm's way while you are casting.
6. Watch for steep inclines at the water's edge and for rocks and stumps while wading.
7. If someone is hooked, all parties must stop and not move. Remove the hook only if it is on the surface of the skin or on the clothing; otherwise, seek help for proper hook removal.
8. Safety glasses or sunglasses are highly recommended.
9. A large-brim hat is advisable to prevent overheating, reduce glare, and fend off any stray hooks coming your way.
10. Be sure to have ample drinking water to avoid dehydration.
11. Review the standard safety procedures concerning cuts, scratches, and other wounds.
12. Understand that hypothermia can be a risk even during the summer months, and be sure you know how to prevent and treat heat exhaustion and heatstroke.
13. A fishing rod can become a lightning rod. During thunderstorms, set your rod down until the weather clears.

FISHING TACKLE CHECKLIST

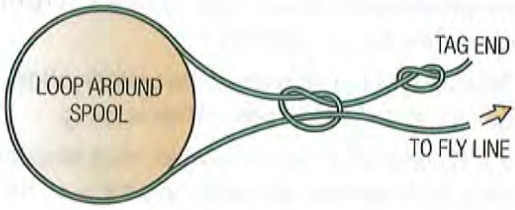
- Tackle box
- Fishing rods, reels, and line
- Appropriate live bait and cool storage
- Assorted lures, hooks, and flies
- Bobbers, snap swivels, and sinkers
- Nail clippers, pliers, and forceps
- Backup monofilament line and leaders
- Landing net and measuring device
- Fish identification booklet
- Stringer for keeping fish
- Fish-cleaning knife and cooking equipment
- Fishing regulations and license (if required)
- First-aid kit
- Proper shoes and spare socks
- Sunscreen (with an SPF of at least 15) and insect repellant

For comfort, safety, and being prepared for the weather conditions, consider rain gear, a bandanna, a wide-brimmed hat, and sunglasses.

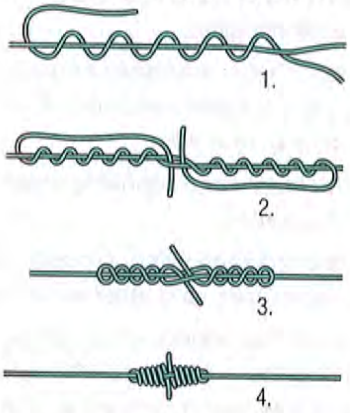
Fishing Knots

A chain is only as strong as its weakest link, and a fishing line is only as strong as its knots. It's sad to lose a nice fish because of a poorly tied knot. In fishing, several knots serve specific purposes; several other knot options serve the same purpose. Here are some knots you should know.

The **arbor knot** is used to attach fishing line to the reel arbor, keeping the line from coming loose on the reel.

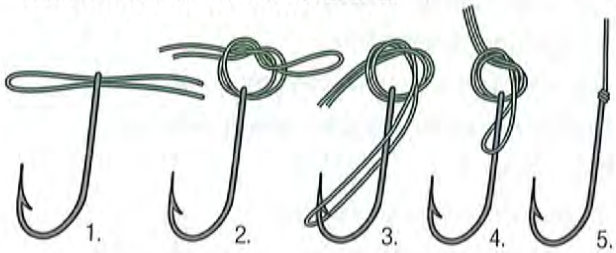


The **blood knot** (or **barrel knot**) attaches two lengths of monofilament lines together.

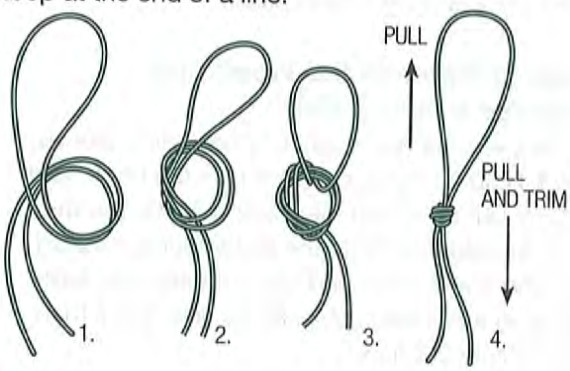


The **improved clinch knot** attaches the terminal line to a hook, lure, or swivel.

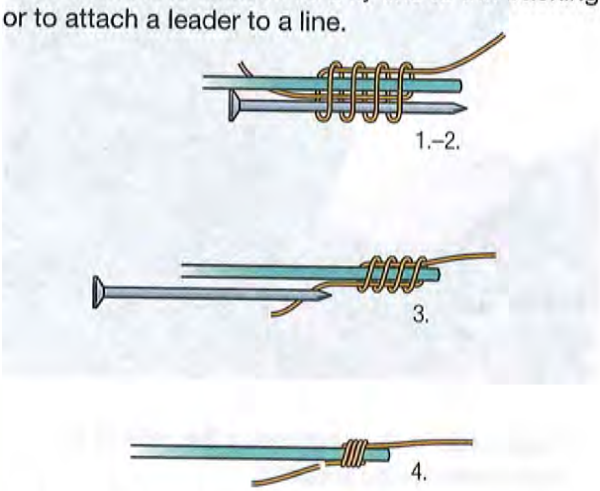
The **Palomar knot** is another option to attach a hook or lure to the terminal line.



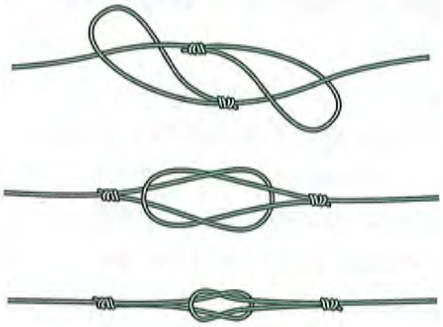
The **double surgeon's loop** creates a secure open loop at the end of a line.



The **nail knot** is used to tie a fly line to the backing or to attach a leader to a line.



The **loop to loop knot** is a very effective way to connect two loops together.



For tying instruction, see the *Fishing* and *Fly-Fishing* merit badge pamphlets. You can find animated tying instructions at www.animatedknots.com/indexfishing.php. These pamphlets also have safety and first-aid information related to fishing.

FISHING GAMES

Fish Identification Challenge

Equipment: Several Backyard Bass (plastic casting targets shaped like fish, available at backyardbass.com), clear packing tape, permanent marker

Preparation: On the underside of each Backyard Bass, attach a picture of a fish with clear packing tape. Using a permanent marker, write a point value from 1 to 5 on each fish. Assign lower point values to fish that are easier to identify, such as bluegills, and higher values to more difficult fish, such as sturgeon.

Method: Give each Scout three to five opportunities to cast and catch fish. (Do not use hooks; use only hookless lures or casting plugs.)

Scoring: Award points to Scouts only if they can identify the picture of the fish they catch.

Variation: Award points for catching a fish and bonus points for identification.

Casting Accuracy Challenge

Equipment: Several Backyard Bass, hula hoops, or plates; caution or surveyor's tape

Preparation: Use the tape to create a line simulating a shoreline. Spread the Backyard Bass, hula hoops, or plates on the lawn.

Method: From the shore, Scouts practice casting to catch the Backyard Bass or hit the hula hoops or plates. (No hooks; use only hookless lures or casting plugs.)

Scoring: Assign points for each successful cast. For example, you could give 1 point for hitting inside a hula hoop, 2 points for hitting a plate, and 3 points for catching a Backyard Bass.

Fishing-Knot-Tying Relay

Equipment: Two 12-inch fishing lines per team (two different gauges with a large hook or cork to guard the hook point, or a simulated hook with an eye), clothespins, cards with the names of fishing knots (one knot per card)

Preparation: Tie the long rope between two poles or three trees. Attach the cards to the rope with clothespins.

Method: Teams line up in relay formation. On a signal, the first player runs to the suspended rope and ties one of the knots. A judge inspects the knot and either leaves it in place or unties it. Either way, the player runs back to tag the next player. Continue play until one team ties all the knots correctly.

Scoring: The first team to tie all the knots correctly wins.

Fishing Tackle Matching Game

Equipment: A variety of fishing tackle, such as an open-face spinner reel, a closed-face spinner reel, a bait casting reel, a fly-fishing reel, a plug, a spinner, a jig, and a streamer

Method: Place the tackle on a table. Scouts must match each lure or fly with the right reel.

Scoring: Give 1 point for each correct answer.

E.D.G.E. Ideas

Explain how it is done—Tell them.
Demonstrate the steps—Show them.
Guide learners as they practice—Watch them do it.
Enable them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain how Scouts can benefit from learning to fish.
- Discuss how fishing enjoys a strong history with Scouting.
- Review the basics of fishing tackle.
- Explain the physics of casting.
- Present the reasons to learn proper fishing knots.
- Review fishing safety and how to avoid negative incidents.
- Explain how to catch fish.

DEMONSTRATE

- Show examples of fishing tackle and demonstrate how to cast.
- Present examples of terminal tackle and show how to rig it.
- Demonstrate how to tie the five basic fishing knots.
- On diagrams of lakes and rivers, show where you are most likely to find fish.
- Using an orange or apple, demonstrate how to properly remove a hook lodged in the arm.
- Review gear needed for a fishing trip.

GUIDE

- Have Scouts practice casting on a lawn using hula hoops or plates as targets.
- Teach Scouts to tie basic fishing knots and practice.
- Have Scouts research types of fish in the surrounding area and identify them.
- Have available samples of live bait and show how to hook them for fishing.
- Bring a variety of lures and have Scouts describe how to fish each.

ENABLE

- Take Scouts fishing and catch fish.
- Let Scouts clean and cook a fish.
- Present challenging games to test Scouts' casting skills.
- Present challenging games to test Scouts' ability to tie knots.
- Encourage Scouts to complete the Fishing and Fly-Fishing merit badges.
- Utilize experienced Scouts to coach others on the weekend fishing trip.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Weekend Activity
Fishing fundamentals outing—Plan a rewarding opportunity to take a fishing excursion. This could be a one-day trip to a local pond or stream or a weekend campout to a productive fishing location. You can find destinations through the Take Me Fishing website at www.takemefishing.org, under the "Places to Boat and Fish" section.	Fish and hike overnight—Plan a weekend where moderately experienced Scouts can expand their skills by using more advanced gear such as open-faced spinning tackle, mastering the fishing knots, and trying to catch more species of fish. Experience a wider variety of baits and lures. This will ideally be an overnight event that includes evening fishing plus using pack rods on a hiking trip to a more remote lake or river. Those who haven't earned the Fishing merit badge should be expected to complete all the requirements on this outing.	Fly-Fishing and Bait-Casting Weekend: Take a full-fledged fly-fishing or bait-casting weekend to work on the Fly-Fishing merit badge. A fly-fishing trip can include a variety of opportunities such as a trout stream, a remote location, a bass lake, or saltwater flats. An ideal bait-cast trip would include an adult bass fisherman who has a bass boat. However, any boat at a nice bass lake would do.

FISHING

Meeting Plan: Introduction to Fishing

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Display an album of great fishing pictures from the Internet or other sources. Have copies of the *Boys' Life* annual April fishing issue on hand.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss plans for the next four weeks and details of the main event.		7:10 p.m.
Skills Instruction 45 minutes	• Discuss the basics of fishing. • Outline the benefits and opportunities. • Demonstrate the spin-cast outfit, how it works, and how it is fished. • Challenge Scouts to complete the Fishing merit badge.		7:15 p.m.
	• Have Scouts use an open-faced spinning outfit. • Demonstrate and instruct on how to best use spinning outfits effectively. • Challenge Scouts to complete the Fishing merit badge.		
	• Introduce the opportunity for earning the Fly-Fishing merit badge during this month. • Teach fly-fishing basics.		
Breakout Groups 15 minutes	• Begin planning for participation in the main event. • Encourage the Scouts to involve their parents in helping with the main event; ask how they may be able to share expertise or fishing gear.		8 p.m.
Game 10 minutes	Play Fish Identification Challenge (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FISHING

Meeting Plan: Casting Technique

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have several rods available for Scouts to review and cast to determine their skill levels. Include spincast, spinning, and fly rods. (Use a hookless lure or casting plug.)		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Introduce the three types of fishing rods, and point out the one each skill level group should use. Discuss quickly the differences and why Scouts should use each.		7:10 p.m.
Skills Instruction 45 minutes	Demonstrate and instruct Scouts to spincast outfits. Let them practice on a lawn with ample spacing using plugs or hookless lures. Remember, no hooks.		7:15 p.m.
	Demonstrate casting with spinning outfits and instruct Scouts how to cast. Let them practice on a lawn with ample spacing using plugs or hookless lures. Remember, no hooks.		
	Demonstrate roll cast and overhead cast fly-rod outfits and instruct Scouts in their use. Let them practice on a lawn with ample spacing using hookless flies or tufts of yarn. Remember, no hooks. Allow ample room both in front of and behind each Scout for casting.		
Breakout Groups 15 minutes	• Evaluate how each Scout did with casting, and offer more help if needed. • Review how parents can help to support the fishing preparation and the main event. • Determine who plans to go on the main event. • Sign off Fishing or Fly-Fishing merit badge requirements as appropriate.		8 p.m.
Game 10 minutes	Play Casting Accuracy Challenge (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FISHING

Meeting Plan: Knots

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Display a fishing knot board featuring five basic fishing knots: Palomar knot, improved clinch knot, double surgeon's knot, loop to loop, and blood knot. See who can identify each knot and its use.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Introduce the basic fishing knots and riggings. Explain how important it is to learn them in order to succeed.		7:10 p.m.
Skills Instruction 40 minutes	Demonstrate the five basic knots, and instruct Scouts in tying them. Let them practice with small-diameter rope and then with monofilament line.		7:20 p.m.
	Demonstrate the five basic knots, and instruct Scouts in tying them. Let them practice with small-diameter rope and then with monofilament line. If Scouts already know the knots, have them use the EDGE method to teach them to the other Scouts.		
	Demonstrate the five basic knots plus a nail knot for fly-fishing, and instruct Scouts in tying them. Let them practice with small-diameter rope and then with monofilament line. If Scouts already know the knots, have them use the EDGE method to teach other Scouts.		
Breakout Groups 15 minutes	• Continue group planning for the main event. • Complete advancement requirements as needed. • Sign off on Fishing or Fly-Fishing merit badge requirements as appropriate.		8 p.m.
Game 10 minutes	Play Fishing-Knot-Tying Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FISHING

Meeting Plan: How to Fish

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	• Have older Scouts dress inappropriately for a fishing trip. • Challenge other Scouts to tell them what should be changed, eliminated, or added for the upcoming trip.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Explain that the Scouts are about to have a great outing, but only if they have prepared properly, including assembling all the necessary fishing tackle.		7:10 p.m.
Skills Instruction 45 minutes	• Review all tackle Scouts will use and where or how they can obtain it. • Discuss what will be supplied by the troop, and what they will be responsible for bringing.		7:20 p.m.
	• Review all tackle Scouts will use and where or how they can obtain it. • Discuss what will be supplied by the troop, and what they will be responsible for bringing. • Inspect the gear being provided by the unit or unit families.		
	• Review all tackle Scouts will use and where or how they can obtain it. • Discuss what will be supplied by the troop, and what they will be responsible for bringing. • Inspect the gear being provided by the unit or unit families. • Make repairs as needed.		
Breakout Groups 10 minutes	• Finalize plans for participation in the main event, including menus, shopping lists, and duty rosters. • Sign off Fishing or Fly-Fishing merit badge requirements as appropriate.		8:05 p.m.
Game 10 minutes	Play Fishing Tackle Matching Game (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FISHING

Main Event: Fishing Fundamentals Outing

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Day or Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Plan a rewarding opportunity to take a fishing excursion. This could be a one-day trip to a local pond or stream or a weekend campout to a productive fishing location.

You can find destinations through the Take Me Fishing website at www.takemefishing.org. Just look for the "Places to Boat and Fish" section.

Equipment List	• Fishing tackle (described earlier) • Camping equipment, as needed • Fishing licenses, as required • Items for cleaning and cooking the fish as required for the Fishing merit badge • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Locate a lake or river that offers a good chance for Scouts to be successful. • Before leaving, double-check all fishing equipment, bait, and lures. • On arrival, rig the rods and double-check all knots. • Walk the area to locate good fishing spots and point out any hazards to avoid, such as poison ivy and venomous snakes. • Have Scouts find buddies, decide meeting times and locations for checking in, and then go fishing. • If keeping fish to cook, be sure to store them properly (cool and out of the sun), and clean them relatively soon. • Evaluate the day and make notes of positives and negatives.
Safety	• Follow all rules, always use the buddy system, and be sure to take time for all the precautionary steps such as applying sun protection and insect repellent. • Have available rain gear, flashlights, and a first-aid kit. • Watch for inclement weather approaching, and move away from the water and fishing rods if a thunderstorm develops. • Keep calm if an accident occurs, and deal with it confidently. • Have a cell phone and numbers available in case of emergencies.

Notes

Challenge the Scouts with more experience to help the others who may be having problems. Encourage Scouts to release their catch correctly, as it can be a wonderful experience to watch the fish return safely into the water.

FISHING

Main Event: Fish and Hike Overnight

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Plan a weekend where moderately experienced Scouts can expand their skills by using more advanced gear such as open-faced spinning tackle, mastering fishing knots, trying to catch more species of fish, and experiencing a wider variety of baits and lures. This will ideally be an overnight event that includes evening fishing as well as using pack rods on a hiking trip to a more remote lake or river. Those who have not yet earned the Fishing merit badge should be encouraged to complete all of the requirements.

Equipment List	• Fishing tackle (described earlier) • Lightweight camping equipment • Fishing licenses, as required • Items for cleaning and cooking the fish as required for the Fishing merit badge • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Locate a lake or river that offers a good chance for Scouts to be successful. • Plan an itinerary that includes hiking to a remote fishing location. • Before leaving, double-check all fishing equipment, bait, and lures. • On arrival at the fishing site, rig the rods, and double-check all knots. • Walk the area to locate good fishing spots as well as point out any hazards to avoid, such as poison ivy and venomous snakes. • Have Scouts choose their buddies and decide on meeting times and locations for checking in, then go fishing. • If keeping fish to cook, be sure to store them properly (cool and out of the sun), and clean them relatively soon. • Evaluate the day, and make notes of positives and negatives.
Safety	• Follow all rules, always use the buddy system, and be sure to take time for all the precautionary steps such as applying sun protection and insect repellent. • Have available rain gear, flashlights, and a first-aid kit. • Watch for inclement weather approaching, and move away from the water and fishing rods if a thunderstorm develops. • Keep calm if an accident occurs, and deal with it confidently. • Have a cell phone and numbers available in case of emergencies.

Notes

If your trip includes less-experienced Scouts, help them to ensure they have a rewarding fishing experience.

FISHING

Main Event: Fly-Fishing and Bait-Casting Weekend

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Take a full-fledged fly-fishing or bait-casting weekend to work on advanced fly-fishing techniques or the Fly-Fishing merit badge. A fly-fishing trip can include a variety of opportunities such as hiking to a remote location and fishing a trout stream, bass lake, or saltwater flats. An ideal bait-cast trip would include an adult bass fisherman who has a bass boat. However, any boat at a nice bass lake would do.

Equipment List	• Fishing tackle (described earlier) • Lightweight camping equipment • Fishing licenses, as required • Items for cleaning and cooking the fish (required for the Fishing and Fly-Fishing merit badges) • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Locate a lake or river that offers a good chance for Scouts to be successful. • Review Safe Swim Defense and/or Safety Afloat requirements, as appropriate; ensure trained adult supervision. • Before leaving, double-check all fishing equipment, bait, and lures. • On arrival at the fishing site, rig the rods and double-check all knots. • Walk the area to locate good fishing spots and point out any hazards to avoid, like poison ivy and venomous snakes. • Have Scouts choose their buddies and decide meeting times and locations for checking in, then go fishing. • If keeping fish to cook, be sure to store them properly (cool and out of the sun), and clean them relatively soon. • Work toward completing the Fishing, Fly-Fishing, and Fish and Wildlife Management merit badges.
Safety	• Follow all rules, use the buddy system, and be sure to take time for all the precautionary steps such as applying sunscreen and insect repellent. • When fishing in any watercraft, be sure to know and follow all the proper precautions (see the BSA's Safety Afloat guidelines online at www.scouting.org/HealthandSafety/Aquatics/safety-afloat.aspx), and always wear a proper life jacket. • Have rain gear, flashlights, and a first-aid kit within a reasonable distance. • Watch for inclement weather approaching and move away from the water and fishing rods if a thunderstorm develops. • Keep calm if an accident occurs and deal with it confidently.

Notes

If your trip includes less-experienced Scouts, help ensure they have a rewarding fishing experience.

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Related Program Features

Camping, Nature and Environment, and Outdoor Ethics

Photo and Illustration Credits

Pages 21-1 (*yellow perch,* U.S. Fish and Wildlife Service/Duane Raver, courtesy; *young fisherman,* Virgil Pearce, courtesy; *bobbers,* BSA/Dan Bryant; Shutterstock.com, courtesy: *creel,* ©VVO; *tackle box,* ©Kateryna Dyellalova), 21-3 (BSA file), 21-4 (*all knot illustrations,* BSA/John McDearmon), and 21-5 (Shutterstock.com, courtesy: *toy fish,* ©Vladyslav Danilin; *red-tail fishing lure,* ©Igors Rusakovs; *striped fishing lure,* ©MeePoohyaPhoto; *fly-fishing fly,* ©schankz)

Acknowledgments

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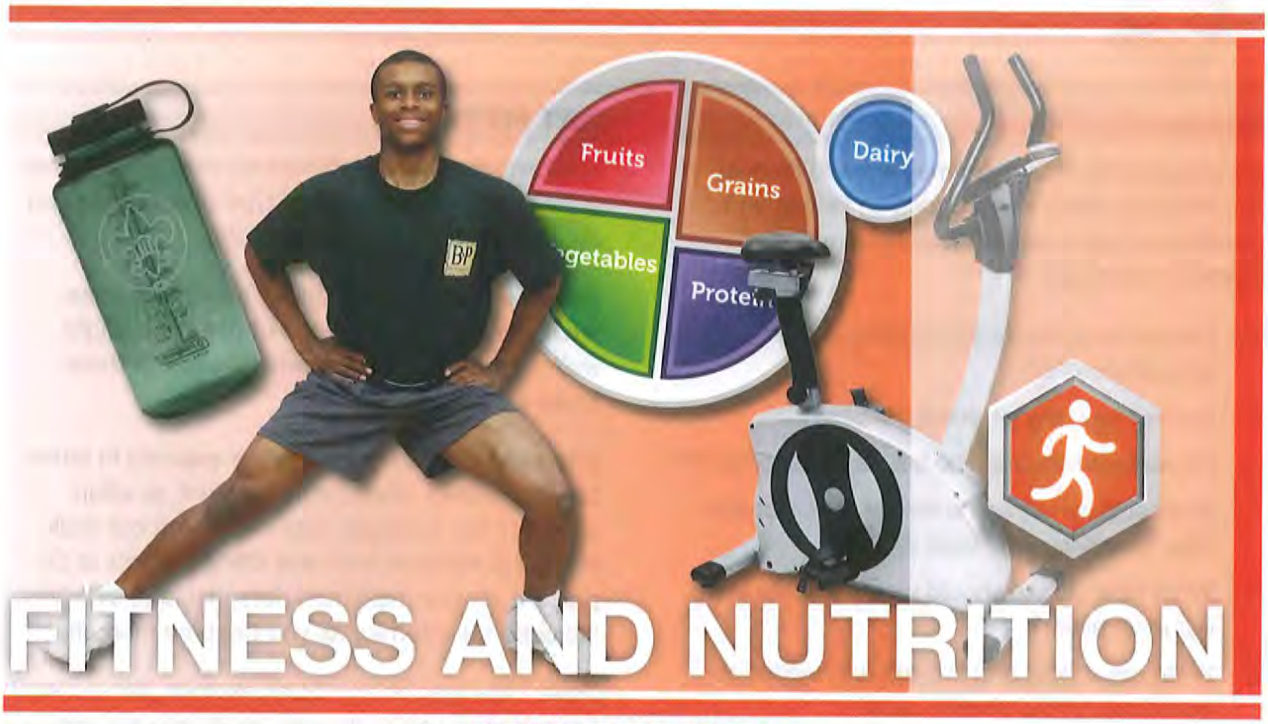


Getting Into Shape

Fitness is essential to many Scouting activities and a major contributor to a long, healthy life. The Scout Oath proclaims that a Scout is physically strong, but many Scouts (and leaders) aren't as fit as they'd like to be.

We all know we should eat nutritious meals and get plenty of exercise, but how do you get started if you have developed some bad habits? Living a fit life requires balance in your mind and spirit as well, but how can you find balance if you are stressed out by the demands of school and other activities?

The best way to start is by figuring out where you stand. In this program feature, Scouts will begin by determining their own fitness levels, learn some of the building blocks of fitness and nutrition, and then apply that learning in a challenging main event. This program feature won't turn you and your fellow Scouts into elite athletes, but it will put you on the road toward a healthier, more satisfying lifestyle.

Note: Increased fitness and good nutrition don't happen overnight. While most program features are designed to be done in about a month's time, you might get more out of this module if you do it over several months. Consider using parts of this module to fill in planning gaps throughout the year. If your main event is going to be a race or competition, you will need more than a month to train properly.

Before beginning this program feature, it's a good idea for all participants to have an annual medical evaluation by a certified and licensed healthcare provider: a physician (MD or DO), nurse practitioner, or physician assistant. Use the BSA Annual Health and Medical Record, No. 680-001.

Objectives

This month's activities should:

- Define the importance of fitness.
- Teach Scouts about good nutrition.
- Explain how wellness is related to fitness.
- Emphasize the dangers of drugs, alcohol, and tobacco.
- Teach positive ways to reduce stress.
- Show Scouts how to work toward lifetime fitness.

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot requirements 10a and 10b
- Second Class requirements 3g and 9a
- First Class requirement 4a
- Athletics, Cooking, Personal Fitness, Public Health, and Sports merit badges
- Varsity Scout letter
- Varsity Scout Triathlon activity pin
- Quest Award
- Presidential Active Lifestyle Award
- Presidential Physical Fitness Award
- Discovery Award and Pathfinder Award electives

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing fitness and nutrition as your program feature during your planning meetings.

1. Should we spread this module out over several months?
2. Do we know any personal trainers?
3. Do we know anyone who teaches yoga or tai chi?
4. What activity will we do for the "Get Out and Play" meeting plan (week 4)?
5. What type of race should we participate in for our main event?
6. What other skills and training are needed to participate in our chosen race?
7. How might we include a camping or overnight component for the main event?

PARENTS CAN HELP WITH THE FITNESS AND NUTRITION PROGRAM FEATURE BY:

1. Sharing their expertise
2. Recruiting fitness coaches to teach during meetings
3. Furnishing equipment and other supplies
4. Serving as support by providing water and snacks
5. Providing transportation for the main event

GET FITT

You can improve your fitness by changing the frequency, intensity, time, and type of exercises you do. Remember the FITT principle:

Frequency: How many times do you exercise each week or month? For example, you might walk seven days a week and lift weights three times a week.

Intensity: How strenuous is the exercise in terms of weight lifted, speed of movement, or effort exerted? For example, you might start out walking at 3.5 miles an hour and lifting weights at 50 percent of your maximum potential, and slowly increase the intensity as you become more fit.

Time: How long do you do an exercise per session? For example, you might walk for 30 minutes and lift weights in two sets with a one-minute rest in between.

Type: What kinds of exercise do you do? For example, you might choose between cycling and walking or lifting weights and doing push-ups.

THE MYPLATE WAY

The U.S. government created MyPlate to help Americans learn better eating habits. Each food group is represented by a space on the plate, so you can figure out what and how much you should consume each day. Here are 10 tips from the U.S. Department of Agriculture:

1. **Make half your plate veggies and fruits.** Get a good mix of colors, too.
2. **Add lean protein.** Instead of standbys like chicken, turkey, lean beef, and pork, choose seafood, beans, and tofu.
3. **Include whole grains.** Read the label! Look for 100 percent whole grain or 100 percent whole wheat.
4. **Don't forget the dairy.** Choose low-fat or fat-free milk and yogurt.
5. **Avoid extra fat.** Avoid cheesy or creamy sauces, gravies, and salad dressings, and limit your ice cream intake.
6. **Take your time.** If you eat slowly, you are less likely to overeat.
7. **Use a smaller plate.** Doing so will help you control your portions.
8. **Take control of your food.** Eating at home gives you better control over what you consume.
9. **Try new foods.** Mango, kale, salmon, barley—there are plenty of tasty and healthy foods to choose from.
10. **Satisfy your sweet tooth in a healthy way.** Try fresh fruit over yogurt or baked apples topped with cinnamon.

DRUGS, ALCOHOL, AND TOBACCO

Junk food is bad, but drugs, alcohol, and tobacco are even worse. Visit http://drugfree.org and http://www.tobaccofreekids.org to learn more.

BODY MASS INDEX

Body mass index, or BMI, is a quick tool for determining how much body fat you are carrying. By entering your height and weight into a BMI calculator, you can determine whether you are underweight, normal weight, overweight, or obese.

If you have Internet access at your meeting place, find a BMI calculator online—a good one is on the Centers for Disease Control and Prevention website at http://www.cdc.gov/healthyweight/assessing/bmi/index.html—and let Scouts calculate their BMIs.

You can also estimate body fat using a caliper, bio-electrical impedance testing, or hydrostatic weighing.

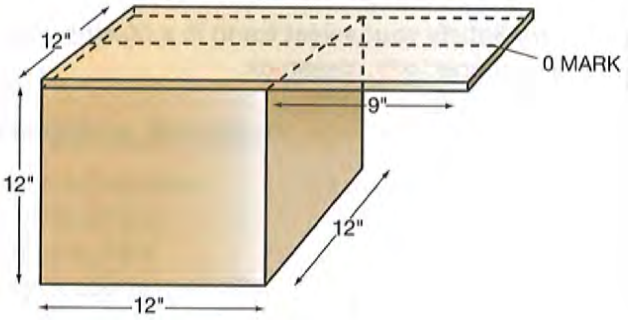
Keep an accurate record of your fitness program.

MEASURING FLEXIBILITY

The sit-and-reach test is an easy way to measure flexibility of areas such as the lower back and the back of the thighs. This test uses a special "sit-and-reach" box, shown here, or similar improvised device such as a yardstick taped to a bench. This stretch works many joints and muscles, including the hips, shoulders, and ankles.

To assume the starting position, remove your shoes and sit facing the sit-and-reach box. Keep your knees fully extended and flat on the floor, and place your feet against the end board. You might need to have someone gently hold your knees flat on the floor. Extend your arms forward with your hands placed on top of each other, palms down. Bend at the hips (not curling the shoulders), reach forward along the measuring scale four times, and hold your hands at the maximum position on the measuring scale for the fourth reach. Record the measurement of the fourth reach.

See the *Personal Fitness* merit badge pamphlet for plans for a sit-and-reach box.



FITNESS AND NUTRITION GAMES AND ACTIVITIES

Body Composition and Fitness Evaluation

Equipment: Measuring tape, stopwatch, sit-and-reach box (described earlier), scale, skin fold calipers (optional), bioelectrical impedance device (optional)

Method: Evaluate each Scout's fitness and body composition for the appropriate advancement that they are working on (Tenderfoot, Personal Fitness merit badge, Quest Award, or Presidential Fitness Award). Test body composition, aerobic function, strength, and flexibility. Set up several testing stations, and do tests round-robin style.

Record: Record the results to be used for comparison at later dates as appropriate to the advancement being worked on.

Note: Since most awards require multiple tests over time, this activity could be repeated at several meetings or offered as a preopening activity.

Know Your Food Groups

Equipment: None

Method: Have the group stand in a large circle, and have one Scout stand in the middle and be "it." That Scout points to anyone in the circle and names a food group. In order to remain in the game, the person selected must name a food in that food group within three seconds, or else he or she must sit down. The last person standing becomes "it" for the next round.

Note: For an added challenge, impose a rule that one food cannot be named twice in the same round.

Izzy-Dizzy Relay

Equipment: None

Method: Have the teams line up relay style. In turn, each member runs to a designated turning point, touches one finger to the ground or floor, walks around his or her finger six times, then runs back to tag the next Scout.

Scoring: The winning team is the first one to have all members complete the activity and return to the starting line.

Note: Beware of falls! It's a good idea to assign each group a spotter to run alongside players for a few yards in case they fall.

Team Sports

Dodge Ball

Equipment: Several rubber dodge balls

Method: In an appropriate setting, divide into two teams. Identify the play boundaries with a center line. Upon signal, each side attempts to throw a ball at players on the other side. A player hit below the shoulders is out. The team of the last player standing wins. (There are many variations of this game, so choose the rules that work best for you.)

Ultimate

Equipment: Flying disc

Method: In an appropriate setting, divide into two teams. Identify the play boundaries. This game is played by passing the disc from player to player until it reaches a team member in the scoring zone. Focus on team play.

Lacrosse

Equipment: Lacrosse sticks, ball, goals, and protective equipment.

Method: In an appropriate playing area, divide into two teams. Identify the play boundaries. This game is played by passing and throwing the lacrosse ball with lacrosse sticks between players and into a goal. Focus on team play.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain what it means to be in shape.
- Discuss how fitness and body composition are evaluated.
- Discuss what makes a nutritious diet.
- List causes of stress and positive and negative ways to help reduce stress.
- Show a video on the consequences of using drugs, alcohol, and tobacco.

DEMONSTRATE

- Demonstrate proper exercise techniques.
- Show how to create a balanced menu using the MyPlate concept.
- Demonstrate relaxation techniques.
- Show how to use the sit-and-reach box.

GUIDE

- Walk Scouts through fitness and body composition evaluations.
- Guide Scouts in using diet logs and activity tracking software.
- Teach basic breathing, stretching, yoga, and tai chi techniques.
- Help Scouts research local walks, runs, and adventure races.

ENABLE

- Have Scouts run a fitness clinic for Webelos Scouts.
- Encourage Scouts to recruit accountability partners to monitor each other's fitness activities.
- Give Scouts the resources they need to pursue the SCOUTStrong PALA Challenge.
- Create unit awards to encourage Scouts to meet fitness goals.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Day or Overnight Activity	Day or Overnight Activity
Community walk or run—Participate in or create your own community race. Consider a 5K or 10K race. These events often correspond with local holidays or are sponsored by local or national charities. Depending on the fitness levels of your participants, they may be able to walk or run this race. Compare times among your group, and give recognitions and awards.	Orienteering meet—Participate in a public orienteering meet. Compete against other orienteering enthusiasts as well as other teams from your unit. Not only will you need good orienteering skills, but you will need to be fit for the race. If possible, combine this event with an overnight camping trip.	Adventure race—Find an adventure race in your area and participate as a team. These competitions combine several competitive events such as cycling, running, orienteering, paddling, climbing, rappelling, zip-lining, etc. Make sure the team has the appropriate training and skills to participate safely. A race like this makes a good option for a super activity if you have covered all other topics earlier in the year.

FITNESS AND NUTRITION

Meeting Plan: Getting Into Shape

Week 1 Date_____

Note: This meeting may be repeated as needed for advancement.

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As Scouts arrive, invite them to play hacky sack. Challenge them to see how long they can keep the beanbag in the air.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Define what it means to be in shape. • Explain the components of personal fitness. • Discuss reasons for becoming fit. • Explain body composition and how it is measured.		7:10 p.m.
Skills Instruction 15 minutes	Learn the proper techniques and advancement requirements for the following exercises: • Strength: push-ups, sit-ups, and pull-ups • Flexibility: hurdler's stretch • Endurance: standing long jump, 1/4-mile run or walk		7:25 p.m.
	Learn the proper techniques and advancement requirements for the following exercises: • Strength: pushups, sit-ups, and pull-ups • Flexibility: sit and reach • Endurance: 9-minute or 1-mile run or walk		
	Learn the proper techniques and advancement requirements for the following exercises: • Strength: pushups, sit-ups, pull-ups, and squats • Flexibility: sit and reach • Endurance: 9-minute or 1-mile run or walk		
Breakout Groups 15 minutes	• Begin making plans for the main event. • Work on advancement and Scout skills as needed.		7:40 p.m.
Activity 30 minutes	Do body composition and fitness evaluations (described earlier).		7:55 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FITNESS AND NUTRITION

Meeting Plan: Nutrition and Diet

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set out a display of food packages. Have Scouts study the labels and list the strange ingredients they find. Challenge them to find the longest, scariest-sounding ingredient names.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 20 minutes	• Discuss what makes up a nutritious diet. • Learn about the MyPlate approach to eating. • Discuss how good nutrition is related to the other components of personal fitness. • Define calories and explain three macro-nutrients (proteins, carbohydrates, and fats). • Discuss the importance of water.		7:10 p.m.
Skills Instruction 30 minutes	List what you ate for the last two days. Evaluate how that fits into the MyPlate concept and whether it represents a balanced diet.		7:30 p.m.
	• Do the activity above. • Learn how to read food labels. • Compare the calories of similar products. • Discuss how to lose weight.		
	• Do the activity above. • Learn about nutrition software and smartphone apps. • Keep track of foods you eat with an online diet tracker. • Set goals and track them for the next month.		
Breakout Groups 15 minutes	• Plan food for the upcoming main event. • Work on Scout skills as needed.		8 p.m.
Game 10 minutes	Play Know Your Food Group (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FITNESS AND NUTRITION

Meeting Plan: Stress Management and Relaxation

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show Internet videos illustrating relaxation techniques.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	• Discuss the causes of stress, problems stress can cause, and positive and negative ways people try to reduce stress. • Discuss the negative effects of drugs, alcohol, and tobacco.		7:10 p.m.
Skills Instruction 40 minutes	Practice stretching and breathing.		7:25 p.m.
	Under the direction of a trained instructor, learn basic yoga.		
	Under the direction of a trained instructor, learn basic tai chi.		
Breakout Groups 15 minutes	Review the requirements for the SCOUTStrong PALA Challenge. Find out how your group could take advantage of this opportunity to get more fit.		8:05 p.m.
Game 10 minutes	Play Izzy Dizzy Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FITNESS AND NUTRITION

Meeting Plan: Get Out and Play

Week 4 Date_____

Note: This meeting may be repeated any time you need a fun activity.

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up game space, and do warm-up and stretching exercises.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law		7 p.m.
Group Instruction 5 minutes	Discuss guidelines for playing your chosen sport safely and fairly. Discuss how to balance teamwork and individual effort.		7:10 p.m.
Skills Instruction 5 minutes	Explain the rules of dodge ball.		7:15 p.m.
	Explain the rules of ultimate.		
	Explain the rules of lacrosse.		
Breakout Groups 10 minutes	Finalize plans for participating in the main event.		7:20 p.m.
Activity/Game 55 minutes	Spend the majority of the meeting time with a friendly sports competition. Choose one game for the entire group. Or, if you have space, enough participants, and the required equipment, you could have more than one sport happening at the same time. Any other team sport can be substituted according to interest and size of group. Possibilities include basketball, soccer, roller hockey, etc.		7:30 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

FITNESS AND NUTRITION

Main Event: Community Walk or Run

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Participate in or create your own community race. Consider a 5K or 10K race. These events often correspond with local holidays or are organized by local or national charities. Depending on the fitness levels of your participants, they may be able to walk or run this race. Compare times among your group, and give recognitions and awards.

Equipment List	• Appropriate race clothing • Supportive running shoes • Whistles • Good nutritious meals (preferably prepared by the group) • Water • First-aid kit
Activity	• Meet for transportation to the event. • Check in at an appropriate time. • Have fun running or walking the race. • Meet for lunch after the race.
Safety	• Use the buddy system. • Always train before a race. • Have cell phones in case of an emergency.

Notes

Charity events like walkathons offer Scouts a way to do a Good Turn while participating in a fitness activity. Encourage friendly competition between Scouts to see who can recruit the most sponsors.

FITNESS AND NUTRITION

Main Event: Orienteering Meet

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 6 hours or overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Participate in a public orienteering meet. Compete against other orienteering enthusiasts as well as other teams from your unit. Not only will you need good orienteering skills, but you will need to be fit for the race. If possible, combine this event with an overnight camping trip.

Equipment List

- Compasses
- Appropriate race clothing
- Supportive running shoes
- Whistles
- Good nutritious meals (preferably prepared by the group)
- Water
- Scout Basic Essentials (Review the list and take what you need.)
- If the race includes an overnight stay, appropriate camping equipment

Activity

- Contact a local orienteering club and find out when it holds public meets.
- Make arrangements to participate in one of those meets.
- If multiple races are available, decide which one is appropriate for your group's fitness level.
- Preregister for the meet as required.
- After the event, hold a debriefing session. Make plans to work on needed skills.
- Participate in the meet.
- Review results of your different teams and present your own awards.

Safety

- Spend an appropriate amount of time training for this event.
- Use the buddy system.
- Have a first-aid kit available.
- Cell phones are a good idea.
- Take caution to avoid tripping and falling while running across uneven surfaces.

Notes

It would be best to do this event after the unit has completed the Orienteering program feature. It might also take months of fitness training in order to properly prepare.

FITNESS AND NUTRITION

Main Event: Adventure Race

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 6 hours or overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Find an adventure race in your area and participate as a team. These competitions combine several competitive events such as cycling, running, orienteering, paddling, climbing, rappelling, zip-lining, etc. Make sure the team has the appropriate training and skills to participate safely. A race like this makes a good option for a super activity if you have covered all other topics earlier in the year.

Equipment List	• Appropriate race clothing • Supportive running shoes • Equipment as needed for the different events • Good nutritious meals (preferably prepared by the group) • Water • If the race includes an overnight stay, appropriate camping equipment
Activity	• Locate an appropriate adventure race in your area. • Become proficient in the skills needed for the different events. • Register for, transport to, and check in at the adventure race. • Have fun racing. • Camp as appropriate. • Demonstrate good outdoor ethics.
Safety	• Spend an appropriate amount of time training for this event. • Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea. • Make sure you have appropriate training and skill in order to compete in all events.

Notes

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Website: http://www.nourishinteractive.com

The President's Challenge Program
Website: https://www.presidentschallenge.org

The SCOUTStrong Presidential Active Lifestyle Award
Website: http://www.scouting.org/scoutstrongpala.aspx

Related Program Features

Backpacking, Climbing and Rappelling, Cooking, Cycling, Hiking, Orienteering, Paddle Sports, and Soccer

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We are grateful to Ashely Clinton, Vancouver, Washington, Certified Personal Trainer, who helped develop the Fitness and Nutrition program feature.

A Future in the Past

Have you ever read a science fiction novel about time travel? Time travel is impossible, of course, but you can experience the next best thing through living history. You can find living history presentations at museums, historic sites, heritage centers, schools, and many other locations. Through the use of clothing styles, pastimes, skills, foods, cooking, music, and handicrafts, interpreters of living history give a sense of everyday life as it was lived during the period they represent.

Living history interpreters seek to demonstrate cultures, including military life, farming, village life, fur trading, and commerce, from a specific time and place in history. Some interpret daily life at museums and sites such as Colonial Williamsburg. Some reenact important events in American history like the Battle of Gettysburg. Some interpret frontier history at backcountry camps such as those at Philmont Scout Ranch.

This month's meetings will introduce you to basic concepts of living history and start you on the road to a future in the past. So jump into your time machine, and let the journey begin!

Objectives

This month's activities should:

- Show Scouts how to find out about local history.
- Help them understand how the past has impacted how we live today.
- Teach them how to research a time period and place.
- Cover basic life skills from a specific time period.
- Encourage Scouts to create a persona.
- Prompt Scouts to pursue additional activities related to living history.

RELATED ADVANCEMENT AND AWARDS

Advancement opportunities related to living history are numerous within the Scouting program. Pioneers and frontiersmen used basic Scoutcraft and outdoor skills on a daily basis just to survive. Be creative and look for connections.

- Tenderfoot requirements 1, 2, 3, 4a, 4b, 4c, and 11
- Second Class requirements 1a, 1b, 3b, 3c, 3d, 3e, 3g, and 6
- First Class requirements 1, 2, 4a, 4b, 4c, 4d, 4e, 6, 7a, 7b, 8a, and 10
- American Cultures, American Heritage, Archery, Basketry, Communication, Cooking, Genealogy, Indian Lore, Leatherwork, Metalwork, Music and Bugling, Pioneering, Pottery, Rifle Shooting, Scouting Heritage, Wood Carving, and Woodwork merit badges
- Venturing: Communication, Cooking, Land Navigation, and Wilderness Survival core requirements
- Ranger: Equestrian, Fishing, Hunting, Outdoor Living History, Plants and Wildlife, and Shooting Sports electives

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing living history as your program feature during your planning meetings.

1. How much do we know about our local history?
2. Do we know a historian, interpreter, or other expert?
3. What do we want to do for a main event?
4. Where do we want to do our main event?
5. Are there any historical sites where we can volunteer?
6. How can our parents get involved?
7. What costs will be involved in the activities we want to do?
8. To meet our needs, what should we change in the sample meeting plans?

PARENTS CAN HELP WITH THE LIVING HISTORY PROGRAM FEATURE BY:

1. Helping with fundraising
2. Making costumes
3. Providing transportation for the main event
4. Serving as experts
5. Finding resources or experts
6. Documenting family history

LIVING HISTORY BASICS

First Person and Third Person

Interpreters vary in the ways they display their knowledge of historical context. Some portray a character in the first person (in character), pretending to be a historical figure. Others stay in the 21st century—even though they may dress in period costumes—and describe historical events in the third person (out of character). Each approach has both advantages and disadvantages.

First-person interpreters use a persona, either a real historical figure or a fictional character. A fictional persona is usually a composite character who represents an average person from the time period.

Creating a Persona

As you develop a persona, consider these factors:

- You first need to decide what place and period you want to reenact. While you could choose any place and period, you will be better off starting with your local history because more resources will be available to you. You may also have more luck with heavily researched periods such as the Civil War.
- Developing a character can be as simple or as complex as you want to make it. It's best to start simple and build upon the basics. What is your occupation? Are you a civilian or in the military? What year were you born, and where do you live? Are you a Native American, soldier, an immigrant, inventor, or an internment camp resident? Are you wealthy, poor, or somewhere in between? Answering these questions and more will help you determine what to wear, what equipment you may carry and use, and what type of daily activities you may likely do.
- If possible, resist the urge to reenact a historical figure because you will be bound to a much stricter level of accuracy. A fictional persona is far better for the novice reenactor as you have the flexibility to craft your persona into the person you want to be. (You should still strive for historical accuracy, of course.)
- Once you have decided on a character, research that time period and learn more about types of clothing, accoutrements, and occupations. From this information you can form a plan and develop your costume and a backstory.

Cooking

- One of the joys of Scouting is Dutch oven cooking. Living history lends itself very well to this style as cast iron cookware and Dutch ovens go back hundreds of years.
- Cooking over an open fire is an acquired skill, and learning those skills will further enhance your character presentation. Learn the difference between a cooking fire and a fire strictly for enjoyment and fellowship.
- Once you settle on a time period to reenact, you can research hundreds of period-correct foods and recipes, making your reenactment experience even more enjoyable. Observers will flock to you when you have some tasty foods for sampling.
- Historical cooking resources can be found at the library, online, and even on some television shows.
- Don't be afraid to try foods that may not be the norm today. You may surprise yourself and learn to love those old recipes. They can also be healthful as they emphasize more vegetables and edible plants and rely less on processed ingredients from the grocery store.
- Recipes passed down through generations of families can also be a fun way to reconnect with your family's past.

Living in the Outdoors

- Living in the outdoors in 1840, for example, is not so different from camping in the 21st century, with the exception of the equipment used.
- Camp life can be as simple as a fur trapper's primitive camp or as elaborate as a military brigade encampment. It all depends on the time period you are trying to represent. Attention to sanitation, storage of food and water, and food preparation was as important 200 years ago as it is today. Do your research and prepare appropriately.
- Put forth the effort to set up an accurate camp. That will further enhance your reenactment experience, as well as educate others as to the lifestyle of a specific time and place. Look at your costume, persona, food, activities, and campsite as a complete package.

Firearms and Accoutrements

Certain living history time periods require the use of firearms, black powder, and accoutrements in order to accurately recreate that period. Examples include mountain man camps and Civil War reenactments.

Keep in mind that the policies in the *Guide to Safe Scouting* apply to living history activities just as they do for all Scouting activities. Another good resource is the *National Shooting Sports Manual.* Before undertaking any activity that uses firearms (aside from nonfunctioning replicas), consult with your council shooting sports coordinator or a BSA-certified shooting sports director.

LIVING HISTORY AT PHILMONT

One of the highlights of backpacking treks at Philmont Scout Ranch is hiking into a living history camp. At camps including Metcalf Station, Black Mountain, and Abreu, staff members interpret important periods in the history of the land that is now Philmont. Scouts who visit learn about that history and get the chance to try activities like blacksmithing, spar-pole climbing, and gold panning.

LIVING HISTORY GAMES

Capture the Flag

Equipment: Two neckerchiefs or pieces of cloth to use as flags

How to play: Divide the group into two teams. Each team has a location designated as its goal. Tie one flag loosely at each goal. The object is to get the opposing team's flag without being captured. A player is captured when tagged by a member of the opposing team. Captured players become members of the team that capture them.

Scoring: The first team to capture the other team's flag and return to its own home base wins.

Notes: This game works best as a wide game, which means you will need a large playing area.

Stiff

Equipment: Two hand-sized blocks of wood

How to play: The leader has two blocks of wood. The Scouts move about at will within a specified area. The leader stands where he can observe all action. When he claps the two blocks of wood together loudly, all players freeze, and any player caught moving is out. If the leader doesn't detect any movement, he says, "Mill around," which permits players to move at random around the playing area until he strikes the blocks together again. Continue until time is up or one player is left.

Scoring: Last player to be caught wins.

Predator and Prey

Equipment: None

How to play: One player is the predator, and the rest are prey. The predator chases the prey and seeks to capture them. Once captured, a player becomes a predator.

Scoring: None.

Notes: Establish boundaries for the playing area before starting the game.

Colonial and Pioneer Games

Equipment: Varies

How to play: Set up a variety of simple period-appropriate games that require minimal equipment. Possibilities include sack races, three-legged races, lawn bowling, horseshoes, marbles, and draughts (checkers). Use a round-robin format to let Scouts try different games.

Scoring: Varies by game.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Discuss the process of persona development.
- Discuss different forms of living history.
- Explain the difference between first-person and third-person historical interpretations.
- Talk about cooking methods used at different points in history.
- Discuss how BSA safety standards apply to living history activities like black-powder shooting.

DEMONSTRATE

- Demonstrate how an interpreter would talk about his or her persona in the first and third persons.
- Demonstrate different types of period cooking techniques.
- Show a variety of tents or shelters used throughout history.
- Show the evolution of commonly used items over time (e.g., firearms, candles, writing tools).
- Show a video of a historical reenactment.

GUIDE

- Discuss your persona with another person (use first person and third person).
- Have Scouts use different fire-starting techniques to start a fire.
- Have Scouts write a message using three different writing techniques from three different living history periods (e.g., medieval scrolls, wax tablets, calligraphy, charcoal, quill).
- Guide Scouts in cooking a period-appropriate meal.
- Provide resources to allow Scouts to research the historical period you are studying.

ENABLE

- Have Scouts give a presentation of their personas to Cub Scouts; another patrol, troop, or crew; or a community member or group.
- Have Scouts make a period-appropriate campsite.
- Have Scouts demonstrate the use of period tools (e.g., camping equipment, cooking gear, bedding layout).
- Have Scouts create a poster about their chosen time period.
- Create a living history area or demonstration at a local festival.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Weekend Activity
History on parade—Set up a display at a local festival, or march in a local parade wearing period clothing. Explain your persona and backstory to those who are interested.	Rendezvous or reenactment—Participate in a rendezvous or historical reenactment in your area. Try to be as authentic as possible. Visit with reenactors to learn more about their hobby. Provide Good Turns at the event, such as picking up trash or helping with crowd control.	Living history weekend—Spend a weekend in your persona. Use only period clothing and equipment. Cook period meals using period utensils. This activity requires a lot of research, but it is the ultimate in living history.

LIVING HISTORY

Meeting Plan: Choosing Your Character

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show a YouTube video that depicts living history such as this *Time* magazine feature on Civil War reenactors: https://www.youtube.com/watch?v=DajfoNBkD4Q.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Do the following: • Explain what living history is. • Discuss what era and setting the unit will focus on this month. • Explain the process of choosing a persona.		7:10 p.m.
Skills Instruction 35 minutes	Make an item for your persona, such as a scroll, paper, a tin lantern, a basket, or a leather pouch.		7:20 p.m.
	Begin making a costume using modern-day items for your persona, such as a cape from a wool blanket or a hat or tunic from cotton.		
	Begin making a costume using original material for your persona, such as hand-sewn buckskins, chain mail, or beaded adornments.		
Breakout Groups 15 minutes	• Select a living history time period. • Begin an outline of persona basics (name, age, birthplace, etc.). Have Internet access or appropriate books on hand to facilitate this process.		7:55 p.m.
Game 15 minutes	Play Capture the Flag (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

LIVING HISTORY

Meeting Plan: Finalizing Your Persona

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Create a collection of index cards with artifacts or items from different time periods, and have Scouts who arrive early match them to their correct time periods.		6:45 p.m.
Opening Ceremony 5 minutes	Flag presentation Oath and Law		7 p.m.
Group Instruction 10 minutes	Lead a group discussion during which participants explain their personas.		7:05 p.m.
Skills Instruction 45 minutes	Continue working on persona research.		7:15 p.m.
	Continue working on persona development, and begin costume design.		
	• Continue working on persona development and costume design. • Make a list of persona-appropriate accessories.		
Breakout Groups 15 minutes	• Discuss plans for the main event. • Review what personal and group equipment will be needed.		8 p.m.
Game 10 minutes	Play Stiff (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

LIVING HISTORY

Meeting Plan: Period Cooking

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	• Have Scouts research living history sites and museums within driving distance of your city. • Provide laptops or tablets with Internet access.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss how to clean and maintain cooking equipment and utensils properly.		7:10 p.m.
Skills Instruction 45 minutes	Create a list of period-appropriate recipes, and develop a menu for the main event. Include a shopping list.		7:15 p.m.
	Create a meal plan using only Dutch oven cooking techniques. Include a shopping list.		
	Make a menu using cooking practices that don't require the use of utensils. Be sure to include different styles of cooking (stick, rock, spit, etc.).		
Breakout Groups 15 minutes	• Finalize plans for main event. • Work on advancement requirements as needed.		8 p.m.
Game 10 minutes	Play Predator and Prey (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

LIVING HISTORY

Meeting Plan: Everyday Skills

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Invite a local living history reenactor to display his or her gear.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	Have a local living reenactor discuss his or her hobby and the research he or she has done.		7:10 p.m.
Skills Instruction 30 minutes	Learn candle making, fire starting, or another period-appropriate activity.		7:25 p.m.
	Learn about weapons used during the period you are interpreting, such as muskets, crossbows, Civil War arms, or bows and arrows.		
	Learn about lodging during the period you are interpreting, such as teepees, lean-tos, or canvas tents.		
Breakout Groups 15 minutes	Finalize persona, costume, and cooking menu.		7:55 p.m.
Game 15 minutes	Set up a round-robin of period-appropriate colonial or pioneer games (described earlier). Your guest reenactor may be able to provide guidance.		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

LIVING HISTORY

Main Event: History on Parade

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Four to six hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Set up a display at a local festival, or march in a local parade wearing period clothing. Explain your persona and backstory to those who are interested.

Equipment List	• Costumes • Period accessories • Poster or display boards • Food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Identify a local parade or festival that you could participate in. • Call the organizers and find out what is required in order to participate. • Develop a display or parade float as appropriate. • Strive to wear complete period-appropriate outfits. • Demonstrate your knowledge of your persona and the time period you are studying.
Safety	• Always use the buddy system, or stay in a group. • If marching in a parade, decide on a meeting place at the end of the route. • Have a cell phone and numbers available for emergencies.

Notes

LIVING HISTORY

Main Event: Rendezvous or Reenactment

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Participate in a rendezvous or historical reenactment in your area. Try to be as authentic as possible. Visit with reenactors to learn more about their hobby. Provide a Good Turn at the event, such as picking up trash or helping with crowd control.

Equipment List	• Period-appropriate tent or lodging, if possible • Costume- and persona-appropriate accessories or Scout uniform • Cooking gear • Food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Research living history events in your area, and pick one that is appropriate to the period you are studying. • Make arrangements or reservations for camping location. • Collect the admission fee, if applicable. • Meet and introduce yourself to other participants in character. • Provide a Good Turn to improve the experience for visitors. • Enjoy the experience.
Safety	Follow the *Guide to Safe Scouting* (go to http://www.scouting.org/HealthandSafety/GSS.aspx), as well as the policies of the event organizers. Remember that Scouting policies must be followed when they are more restrictive than event policies.

Notes

Supplement period camping gear with modern equipment to allow a safe camping experience.

LIVING HISTORY

Main Event: Living History Weekend

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Spend a weekend as your persona. Use only period clothing and equipment. Cook period meals using period utensils. This activity requires a lot of research, but it is the ultimate in living history.

Equipment List	• Period-appropriate tent or lodging • Costume- and persona-appropriate accessories • Cooking gear • Persona information • Food • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Research living history events in your area, and pick one that is appropriate to the period you are studying. • Make arrangements or reservations for camping location. • Collect admission fee, if applicable. • Spend the entire weekend in character. • Enjoy the experience.
Safety	Follow the *Guide to Safe Scouting* (go to http://www.scouting.org/HealthandSafety/GSS.aspx), as well as the policies of the event organizers. Remember that Scouting policies must be followed when they are more restrictive than event policies.

Notes

Supplement period camping gear with modern equipment to allow a safe camping experience.

REFERENCES

Books

American Cultures, *American Heritage*, *Archery*, *Basketry*, *Communication*, *Cooking*, *Genealogy*, *Indian Lore*, *Leatherwork*, *Metalwork*, *Music and Bugling*, *Pioneering*, *Pottery*, *Rifle Shooting*, *Scouting Heritage*, *Wood Carving*, and *Woodwork* merit badge pamphlets

Magazines

Skirmish: The Living History Magazine
Website: http://www.skirmishmagazine.com

Websites

Living History Resources
Website: http://livinghistoryresources.webs.com

Living History Worldwide
Website: http://www.livinghistoryworldwide.com

Buckskinning.org
Website: http://www.buckskinning.org

Ancient Celtic Clans
Website: http://www.celticclans.org

The Civil War Reenactors
Website: http://www.cwreenactors.com

The Medieval Combat Society
Website: http://www.themcs.org

The Society for Creative Anachronism (Medieval)
Website: http://www.sca.org

Related Program Features

Camping, Communication, Cooking, and Project Planning

Photo and Illustration Credits

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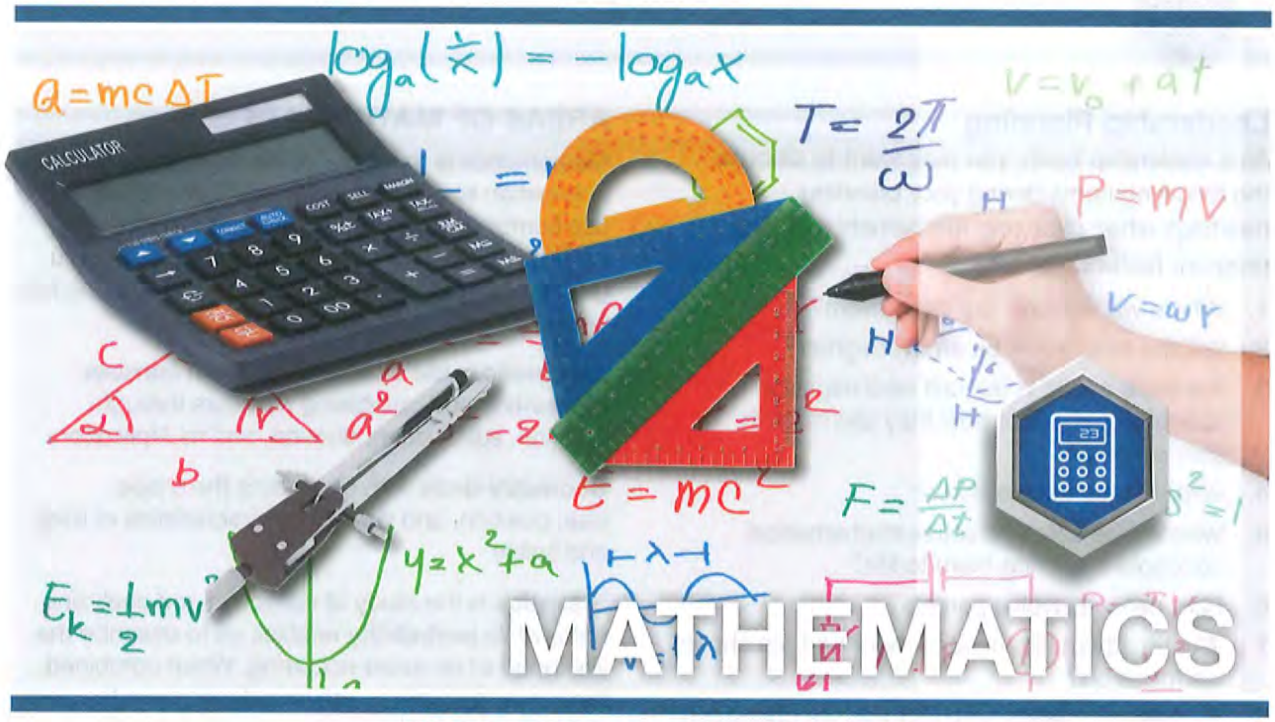


Numbers, Formulas, Logic

You might think mathematics is just a class you have to take in school, but it is actually an important part of our everyday lives. Even though you may not notice it at first, its applications are widespread. From calculating the amount of money you have to pay when shopping, to ensuring the safety of the bridges you use, mathematics has many different applications.

This month, you will have the opportunity to learn about how mathematics affects our everyday lives. The unit's weekly meetings will be full of activities that make mathematical concepts fun to learn and apply.

Objectives

This month's activities should:

- Define what is mathematics.
- Demonstrate how mathematics is used in everyday life.
- Encourage Scouts to earn the Nova and Supernova awards.
- Increase understanding of and demonstrate different mathematical concepts.
- Explore the different areas of study within mathematics.
- Expose Scouts to careers that use mathematics.

RELATED ADVANCEMENT AND AWARDS

- Architecture, Aviation, Chess, Cooking, Digital Technology, Drafting, Electronics, Energy, Engineering, Entrepreneurship, Game Design, Home Repairs, Metalwork, Model Design and Building, Nuclear Science, Orienteering, Personal Management, Pioneering, Programming, Robotics, Salesmanship, Surveying, Welding, and Woodwork merit badges
- Nova and Supernova awards

Leadership Planning

As a leadership team, you may want to discuss the following items during your planning meetings when choosing mathematics as your program feature:

1. Where will we have our main event?
2. Will the main event be an overnighter?
3. Are there adults in our unit who might be able to speak about how they use math in their careers?
4. What videos will we show?
5. Who will be able to discuss mathematical concepts and bring them to life?
6. How can we involve parents?
7. What mathematics-related merit badges should we focus on?
8. To meet our needs, what should we change in the sample meeting plans?

PARENTS CAN HELP WITH THE MATHEMATICS PROGRAM FEATURE BY:

1. Sharing their expertise
2. Providing transportation for the main event
3. Providing materials for the different games and activities
4. Mentoring youths as they work on advancement

AREAS OF MATHEMATICS

Mathematics is the study of numbers and their application to describing the world around us. We use numbers every day of our lives, sometimes without thinking about it. For example, when you glance at a clock, you instantly know what time it is without doing any conscious calculations.

Arithmetic is the study of quantity. It consists of counting and combining numbers through addition, subtraction, division, and multiplication.

Geometry deals with describing the shape, size, position, and physical characteristics of lines and solids.

Statistics is the study of collecting and analyzing data, while **probability** enables us to describe the likelihood of an event occurring. When combined, these two disciplines use knowledge from the past to try to predict what might happen in the future.

Calculate Your Horsepower. First find out how much you weigh in kilograms. Multiply your weight in pounds by 0.454 to get kilograms. Next, find a set of stairs. Measure the height (not the length) of the stairs from the bottom to the ending point at the top and write it down. Do this by multiplying the height of one stair by the number of stairs (it doesn't matter how long the stairs are).

Take a running start toward the stairs. When you step on the first step, start the timer; when both feet are on the top step, stop the timer. You may skip stairs. Now you have all the numbers needed.

Now calculate the Power (P) with this formula: mah/t (m*9.80*h)/t, where

m = mass (your weight) in kilograms
a = acceleration (9.80 m/sec2 is the acceleration caused by Earth's gravity)
h = height of staircase in meters
t = time in seconds

The number you get is in watts, which is equal to joules per second (J/s) and newton meters per second (Nm/s). If you don't divide by time, you will calculate the energy needed to climb the stairs.

Work = mah Power = mah/t

Work (or energy) is measured in newton meters or joules; power is measured in joules/second or watts. Divide the number of watts by 745.6 to get the number in horsepower.

AREAS OF STUDY IN MATHEMATICS

Mathematics has two main areas of study. Though they overlap, they can be broken down into general categories.

Raw Mathematics: The Study of Numbers

Quantity: The study of numerical representation

- Numbers
- Integers
- Rational numbers
- Real numbers
- Complex numbers

Structure: The study of sets and functions

- Combinatorics
- Number theory
- Group theory
- Graph theory
- Order theory
- Algebra

Space: The study of describing physical objects

- Geometry
- Trigonometry
- Differential geometry
- Topology
- Fractal geometry
- Measure theory

Change: The study of understanding how things behave

- Calculus
- Vector calculus
- Differential equations
- Dynamic systems
- Chaos theory
- Complex analysis

Applied Mathematics: The Application of Numbers and Models to the Real World

Actuarial science: The study of assessing risk

Biology: The study of life and living organisms

Business: The trade of goods or services

Chemistry: The study of the properties and changes of matter

Computer science: The study of computation

Economics: The study of the production, distribution, and consumption of goods

Engineering: The process of analyzing, designing, and building

Operations research: The study of decision making

Physics: The study of matter and motion

Psychology: The study of mental functions and behaviors

Scientific computing: The study of construction models to solve scientific problems

Statistics: The study of collecting and analyzing data

BUNGEE JUMPING RUBBER BANDS

If you have ever watched bungee jumpers and wondered why they don't hit the ground, make this model to find an answer. This activity requires at least two people and works much better with a group of three to six people.

The scenario: The Acme Daredevil Adventure Company offers the bungee jumping experience to its clientele. The company has picked a site for bungee jumping. Your task is to simulate bungee jumping using rubber bands and an action figure (doll) to determine the ultimate length, or the number of rubber bands to be used with your action figure at any given height to guarantee a safe jump. For maximum thrills, the jump must allow your action figure to come as close to the floor as possible.

Set up the simulation. Tape a weight(s) to the doll's back so that it is heavy enough to stretch the rubber band "bungee cord." Tie one or two rubber bands (the unstretched size should be about 4 inches) to the doll's feet and drop it, headfirst, from various heights. Keep raising the jump height until the head no longer hits the floor. Once you reach this height, perform three trials, measure the height of the drop each time, calculate the average, and calculate the maximum error between the average and the drop heights used to find that average. (Conduct a test drop several times to practice taking readings.) Continue adding rubber bands to see what the average drop height will be for different numbers of rubber bands. Do the experiment with at least six different quantities of rubber bands. Use a tabular chart to help you organize and record your data. (You may use Excel or create your own tables.)

MATHEMATICS GAMES

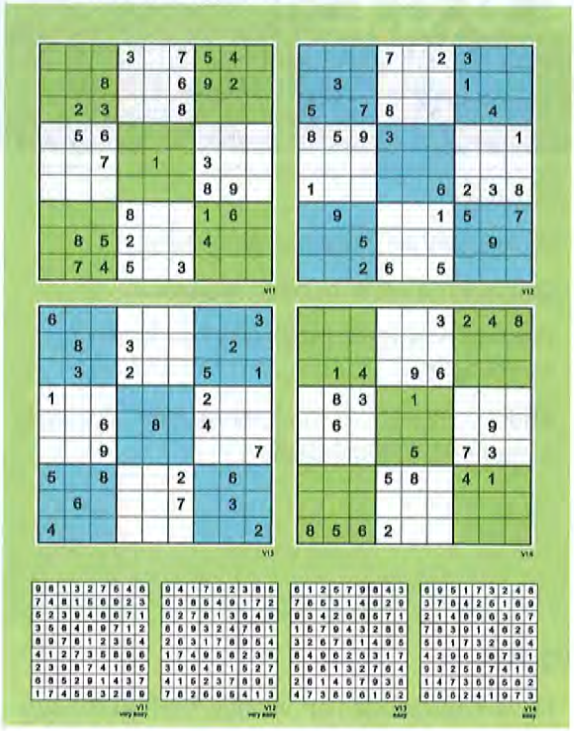
Time Bomb

How to play: Organize into groups of two to 10 people and have each group form a circle. The first person in the circle starts counting from 1 and says up to three numbers. (He could say, "1," "1, 2," or "1, 2, 3.") The next person in the circle continues the sequence by saying the next number in order ("2") and two or three additional numbers. Continue until someone is forced to say 12. That person is now out. Start again from 2. The last person standing is the winner.

Math Bingo

Equipment: A list of 24 math questions that all have different answers; a blank bingo card for each Scout (five rows and five columns with a star in the middle box); pens; projector, white-board, or easel pad

How to play: Display the answers to math questions and have the Scouts randomly place them on their bingo cards. Then, randomly select questions and display them for everyone to see. Have the participants solve the problems and mark the corresponding answer with an "X" on their cards. The winner gets the X's on the card to make a vertical, horizontal, or diagonal line, or to cover all four corners.



Sudoku Race

Equipment: Copies of Sudoku puzzles and small prizes

How to play: Explain the rules of Sudoku and give a puzzle to each person to solve. The first one to complete the puzzle correctly receives a prize. After everyone has completed the puzzle, lead a discussion on different strategies used to solve the puzzle.

Math Trivia

Equipment: A list of mathematical trivia questions and answers. Find questions and answers through an Internet search or create your own.

How to play: There are two options: Teams take turns answering questions, or players write the answers on their own sheets of paper. The winner is the team or player with the most correct answers.

Variations: 1. Create a "Jeopardy!"-style game with multiple categories and escalating point values. 2. Let teams create and ask their own trivia questions, and award points when they stump the other teams.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Define mathematics and its history.
- Discuss the areas of mathematics.
- Discuss how math plays an integral role in everyday life.
- Show a video from the Internet that discusses a mathematical concept.

DEMONSTRATE

- Show a video of a "mathemagician" that demonstrates how mathematics can be fun.
- Invite a speaker to discuss how math is used in his or her career.
- Demonstrate the strength and stability of different shapes.
- Show how you can calculate how far something will travel.
- Demonstrate how you can predict an event through probability.

GUIDE

- Have Scouts work on various math exercises while you supervise.
- Lead a reflection on the different activities Scouts have conducted.
- Watch Scouts design and build mathematical-based games, offering guidance throughout the process.
- Have Scouts assist in planning the main event.
- Help Scouts identify an opportunity to teach or mentor another person.

ENABLE

- Challenge Scouts to improve a math skill they struggle with or to learn something new.
- Encourage older Scouts to mentor younger Scouts by helping them with their math homework.
- Have Scouts practice their math skills through worksheets and downloadable apps.
- Encourage Scouts to talk with their math teacher about careers that rely on math.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Day Activity	Overnight Activity
Architecture firm visit—Visit an architecture firm and have an associate demonstrate how mathematics plays an integral role in designing buildings. Go on a walking tour of your local community and see the different types of geometric shapes that are used in the construction of buildings.	Game show—Create a number of games that could be featured on a television show. These games should rely on mathematical concepts such as probability or arithmetic. Decide what prizes can be won. Host a game show for younger Scouts to participate in, and explain the math behind each game.	Math campout—Camp near a college campus where you can meet with math professors or students and participate in math-related activities.

MATHEMATICS

Meeting Plan: Introducing the Areas of Math

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Short videos of "mathemagic" as Scouts arrive.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Discuss the following: • The definition of mathematics • The origins of mathematics and numerical systems • The areas of mathematics one can study and their importance		7:10 p.m.
Skills Instruction 40 minutes	• Arithmetic: Using the height of everyone in the unit, calculate the unit average. • Geometry: Go on a geometry scavenger hunt. • Probability and statistics: Estimate how many times heads or tails will occur when flipping a coin.		7:50 p.m.
	• Arithmetic: Play a game of dominoes. • Geometry: Create a building using simple geometric shapes. • Probability and statistics: Play a game of Yahtzee.		
	• Arithmetic: Construct a Caesar cipher to send and decode an encoded message. • Geometry: Estimate the height of a building using a protractor. • Probability and Statistics: Construct a Galton board. What does it do? What can you learn from it?		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose a math-related merit badge or Nova award to work on together. • Review the last main event and discuss what could have made it better.		8:05 p.m.
Game 10 minutes	Play Time Bomb (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MATHEMATICS

Meeting Plan: Arithmetic

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play a video (such as Disney's "Donald in Mathmagic Land") that discusses the basics of arithmetic.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Discuss the following: • The basic concepts of arithmetic. • Have Scouts give examples of ways they use arithmetic in their daily lives.		7:10 p.m.
Skills Instruction 35 minutes	Create a budget for your unit's main event. Try to figure out the total cost per person.		7:20 p.m.
	Play a game of dominoes and keep an accurate score.		
	Calculate the value of pi by using different round objects.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose a math-related merit badge or Nova award to work on together. • Make plans for participation in the main event.		7:55 p.m.
Game 15 minutes	Play Math Bingo (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MATHEMATICS

Meeting Plan: Going the Distance With Geometry

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Use newspapers to create towers. See which one can hold the most weight. Try to figure out what shapes are the strongest.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Discuss the following: • What is geometry? • The concept of ratios and averages. • How geometry is used in the real world.		7:10 p.m.
Skills Instruction 40 minutes	Using information found at http://www.exploratorium.edu/math_explorer/flyingthings.pdf: • Have Scouts build paper airplanes and record the distance their planes fly. • Have them modify their design and vary the takeoff height to see which design flies the farthest. • Have each Scout calculate the average distance for each plane design.		7:20 p.m.
	Using information found at http://www.exploratorium.edu/math_explorer/flyingthings.pdf: • Have Scouts build paper airplanes and record both the distance their planes go (D) and the takeoff height (H). • Calculate the glide ratio (G) by dividing the distance by height (G = D / H). • Have the Scouts change a number of variables (design, takeoff height, throwing force) to find the best glide ratio. The larger the G is, the better!		
	Using information found at http://www.exploratorium.edu/math_explorer/flyingthings.pdf: • Have each Scout use graphing paper to draw a diagram of the plane's flight path. • Have them find an appropriate scale, and record the results from multiple trials. • See if Scouts notice from their drawings that a larger glide ratio leads to a greater distance traveled.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose a math-related merit badge or Nova award to work on together. • Make plans for participation in main event.		8 p.m.
Game 10 minutes	Play Sudoku Race (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MATHEMATICS

Meeting Plan: Predicting the Future With Probability and Statistics

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show videos of probability tricks. Think about what game show segments you can use to demonstrate how probability can give the contestant an advantage to winning a prize.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Do the following: • Explain what probability means. • Explain the concept of statistics. • Describe a few scenarios where probability and statistics can be used to predict future events.		7:10 p.m.
Skills Instruction 40 minutes	Using two dice, have each Scout calculate the probability of each possible sum. Roll the dice 100 times, and keep a tally of how many times each sum occurs. Have the participants compare the results to their calculations.		7:15 p.m.
	Create a survey about your upcoming main event. Survey your unit members and record their answers. Look to see if there are any surprises in the answers. Graph the survey results when appropriate. Determine whether the results warrant a change of plans.		
	Play a game of backgammon. Discuss how probability comes into play.		
Breakout Groups 15 minutes	• New members practice basic Scout skills. • Older members choose a math-related merit badge or Nova award to work on together. • Confirm assignments for the main event.		7:55 p.m.
Game 15 minutes	Play Math Trivia (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MATHEMATICS

Main Event: Architecture Firm Visit

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 8 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Visit an architecture firm and have an associate demonstrate how mathematics plays an integral role in designing buildings. Take a walking tour of your local community and look for different types of geometric shapes used in the construction of buildings.

Equipment List

- Decided-upon uniform
- Pad and paper for taking notes
- Camera
- Lunch (decide on individual or group)
- Cell phones as appropriate
- Water
- Scout Basic Essentials (Review the list and take what you need.)

Activity

- Choose an architecture or construction firm near you.
- Contact the firm to arrange a talk about the work they do, and a tour of one of their projects.
- Walk around and observe other buildings in your community.
- Learn all you can about how the buildings were constructed and how math was used in their creation.

To visit a construction site will require advance planning. You will need permission from your parents, unit leader, the architect, and the construction site manager. A construction site is a very dangerous place. While there, you will need to closely follow the site manager's directions and comply with all the safety procedures, including wearing a hard hat, protective eyewear, and proper footwear.

Safety

- Use the buddy system.
- Have a first-aid kit available.
- Cell phones are a good idea.

Notes

MATHEMATICS

Main Event: Game Show

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 8 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Create a number of games that could be featured on a television show. These games should rely on mathematical concepts such as probability or arithmetic. Decide what prizes can be won. Host a game show for a group such as a Boy Scout troop or Cub Scout pack to participate in, and explain the math behind each game.

Equipment List	• Decided-upon uniform • Materials to build games • Prizes • Lunch (decide on individual or group) • Speaker system • Pad and paper for taking notes • Camera
Activity	• Watch a number of game shows to see how math is used to win or to increase the chance of winning a prize. • Build some games that demonstrate probability or math concepts. • Figure out how your game show will run, who your contestants will be, the objectives of each game, and the rules for each game. • Decide which prizes will be given out. • Rehearse the game show before the actual event.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea.

Notes

MATHEMATICS

Main Event: Math Campout

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Camp near a college campus where you can meet with math professors or students and participate in math-related activities.

Equipment List	• Materials for activities • Textbooks • Camping gear • First-aid kit • Meal plan • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Identify a college campus where the group can meet with professors or students on the weekend. • Identify a nearby camping location. (The backyard of the math building might be ideal; be sure to get permission in advance.) • Develop a schedule of tours and other math-related activities. Activities could include measuring distances around campus; calculating the height or volume of buildings; conducting surveys in the student union and generating statistics; repeating some of the activities from the weekly meeting plans (like building paper airplanes); keeping statistics at a sporting event; or doing activities that lead to a Nova or Supernova award. • Build in time for fun and basic Scout skills. • Make appropriate assignments.
Safety	• Use the buddy system. • Follow campus safety policies. • Have a first-aid kit available. • Cell phones are a good idea.

Notes

REFERENCES

Books

Architecture, Aviation, Chess, Cooking, Digital Technology, Drafting, Electronics, Energy, Engineering, Entrepreneurship, Game Design, Home Repairs, Metalwork, Model Design and Building, Nuclear Science, Orienteering, Personal Management, Pioneering, Programming, Robotics, Salesmanship, Surveying, Welding, and *Woodwork* merit badge pamphlets

Boy Scout Nova Awards Guidebook

Venturer Nova Awards Guidebook

Clemens, Glenn. *The Everything Kids' Math Puzzles Book: Brain Teasers, Games, and Activities for Hours of Fun.* Adams Media, 2003.

The Exploratorium. *Exploratopia: More than 400 Kid-Friendly Experiments and Explorations for Curious Minds.* Little, Brown Books for Young Readers, 2006.

Overholt, James L., and Laurie Kincheloe. *Math Wise!: Over 100 Hands-On Activities That Promote Real Math Understanding, Grades K–8.* Jossey-Bass, 2010.

Websites

Are You Game?: Explorations in Probability
Website: http://www.actuarialfoundation.org/pdf/Math-Academy-Are-You-Game.pdf

The Price (or Probability) Is Right
Website: http://www.amstat.org/publications/jse/v9n3/biesterfeld.html

Modeling And Simulation Tools for Education Reform
Website: http://www.shodor.org/master

The 10 Best STEM Resources
Website: http://www.nea.org/tools/lessons/stem-resources.html

Statistics Online Computational Resource (SOCR) Wiki
Website: http://wiki.stat.ucla.edu/socr/index.php/Main_Page

Videos

"Donald in Mathmagic Land"
Website: http://www.amazon.com/dp/B00287Z1F2

Arthur Benjamin, "Mathemagician"
Website: http://www.ted.com/talks/arthur_benjamin_does_mathemagic.html

Galton Board Assembly Instructions
Website: http://www.mathscareers.org.uk/video/galton-board-assembly-instructions/

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Acknowledgments

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Growing Yourself and Others

Who made you the person you are today? Your parents are major influences, of course, but you've been shaped by many people, including Scout leaders, teachers, coaches, and others—many of whom could wear the title "mentor."

A mentor is a wise, loyal advisor. According to Greek mythology, Mentor was a friend and advisor to Odysseus. He was so well thought of that Odysseus trusted him to teach his son Telemachus. Great mentors, such as Merlin to King Arthur and Aristotle to Alexander the Great, help create a vision of how we can make a difference in the lives of others.

As you get older, you have the chance to become a mentor yourself. That's much of what a senior patrol leader, crew president, or Order of the Arrow lodge chief does. Someday, you may also become a parent yourself—the ultimate mentoring role.

Mentoring should be fun—it's enjoyable to watch others grow and become like us. This month's meetings and activities will get you started.

Objectives

This month's activities should:

- Help Scouts understand our differences and how we are all unique
- Explain the difference between coaching and mentoring
- Show what is involved in maintaining a quality mentoring relationship
- Explain the evolution of a mentoring relationship
- Help Scouts select the appropriate mentoring model for the situations they come across
- Show Scouts how to maintain a quality mentoring relationship

RELATED ADVANCEMENT AND AWARDS

Mentoring develops with every leadership position and requirement. At first, we start leading others as a mentee under the direction of someone with experience. As we gain experience we become the mentor to those who are just beginning their Scouting journeys.

Leadership Planning

As a leadership team, you may want to discuss the following items during your planning meetings when choosing mentoring as your program feature:

1. Which of our members has had advanced leadership training?
2. What should we do for our main event?
3. What costs will be involved with our main event?
4. What great mentors do we know who could serve as presenters?
5. What other program topics could we combine with mentoring?
6. What changes should we make to the sample meeting plans that would fit our needs better?

PARENTS CAN HELP WITH THE MENTORING PROGRAM FEATURE BY:

1. Serving as teachers
2. Sharing their own mentoring stories
3. Researching main event options
4. Providing transportation for the main event
5. Helping raise money to pay for the main event

Coaches and Mentors

The terms "coach" and "mentor" are often used interchangeably, but in fact they have distinct differences.

Coach. A coach is an individual who develops skills and capabilities in another person or in a group of people (a team). The coach can be another Scout or one of the unit's leaders. Coaching is a leadership behavior and skill. Coaching can take the form of discussion, lecture, critique, or guided practice. It is generally ongoing as a youth or a team progresses through the program and is often a "formalized relationship" or a teaching/learning process. The key concept that separates coaching from other leadership styles is letting go and enabling success. As individual capabilities grow, a coach may become a mentor to facilitate continued growth of an individual or stand aside as a team resource.

Mentor. A mentor is an experienced Scout or adult leader who becomes a trusted guide and counselor to a less experienced individual. This trusting and caring relationship normally extends beyond Scouting skills into values, beliefs, and feelings. A mentor may be assigned, but often this relationship occurs naturally and is fostered between the individuals involved. Adults often mentor youth in the program, but youth can also mentor each other. In fact, you can even mentor someone your own age or older if you have a skill that person doesn't have.

Coaching is different from mentoring because the mentoring process is led by the learner and is less skills-based. A good mentoring relationship is identified by the willingness and capability of both parties to ask questions, challenge assumptions, and disagree. The mentor is far less likely to have a direct-line relationship with the mentee, and in a mentoring relationship this distance is desirable. Mentoring is rarely a critical part of an individual's role, but rather an extra element that rewards the mentor with fresh thinking as well as the opportunity to transfer knowledge and experience (wisdom) to a new generation.

As we progress from directing to mentoring, we do less talking and more listening. We go from barking out orders to answering questions and giving advice. We have big eyes, big ears, and a small mouth. In some cases, we are there to help pick up the pieces when they fail (and we all fail sometime).

Differences Between Coaching and Mentoring

	COACHING	MENTORING
Goals	To correct	To support and guide
Initiative	The coach	The mentee
Focus	Immediate situation	Long-term
Roles	Heavy on telling	Heavy on listening

The EDGE Method

The EDGE method is great for teaching first aid and knot-tying, but it's also a valuable part of the mentoring process. How could a mentor use EDGE to teach something like leadership or career discernment?

Explain—The mentor explains how something is done.

Demonstrate—After the mentor explains, the mentor demonstrates while explaining again.

Guide—The mentee tries the skill while the mentor guides him through it.

Enable—The trainee works on his own under the watchful eye of the mentor. The mentor's role in this step is to remove any obstacles to success, which enables the mentee to succeed.

The Mentor Law

The Scout Law outlines the traits of a good Scout or Venturer. But what traits does a good mentor have? Here are a few.

Open-mindedness. Mentors set aside their own priorities, preferences, and prejudices. They are willing to be changed in the mentoring process as much as their mentees are changed.

Patience. Rather than giving the "right" answers, mentors help their mentees discover those answers on their own. That takes patience.

Listening ability. Mentors listen more than they talk. Their goal is not to push their mentees in a particular direction so much as to help them find their own path.

Availability. Mentoring involves building ongoing relationships. Good mentors make time to meet with their mentees.

Honesty. Mentors, like true friends, tell us what we need to hear, even when we don't want to hear it.

Support. Mentors help their mentees find resources they need, whether that's books, Web resources, classes, or other mentors.

National Mentoring Month

National Mentoring Month was created by the Harvard School of Public Health and MENTOR (the National Mentoring Partnership). It has been held each January since 2002 and has received strong support from Congress and the president of the United States.

During National Mentoring Month, consider doing the following things to promote mentoring in Scouting:

- Conduct a Mentoring Tomorrow's Leaders workshop.
- Recognize recent participants who have completed the practicum experience portion of Mentoring Tomorrow's Leaders.
- Recognize key mentors in Scouting and the community.

For more information about National Mentoring Month, visit: www.nationalmentoringmonth.org.

INITIATIVE GAMES

Initiative games and cooperative games are played differently from most games that are familiar to us. These games require strategy and skill. Everyone has fun, and in that sense, everyone wins.

Initiative games are purposeful activities with specific goals and learning processes that are less competitive and less rule-oriented. They can best be described as "action and reflection" experiences.

These games:

- Have specific objectives—such as cooperation, trust, or imagination—achieved through physical and verbal group activity
- Call for solving problems
- Must be talked about or reflected upon in order for participants to receive the maximum impact
- Are fun

Everybody Up

This initiative exercise is a useful way to introduce the idea of group cooperation. Ask two youth of about the same size to sit on the floor facing each other with the soles of their feet touching, their knees bent, and tightly grasping each other's hands. From this position, they try to pull themselves into a standing position. If they succeed, ask another youth to join so they can try standing with three, then four, etc. As the group grows, each player must grasp the hands of another person while maintaining foot contact with the group. An expanding group will find that thinking is required to come up with a solution that allows large numbers (50 or more players) to get everybody up.

Stepping Capsules

Give a "life-support capsule" (6-inch-square block of wood) to everyone in the group except the leader. Each capsule must be in contact with (touched by) one or more of the humans (players) at all times. If no human is in contact with a capsule, it must be taken away. The group must get from point A to point B, about 15 to 20 feet, without touching the ground but, rather, using the life-support capsules as steppingstones. If anyone touches the ground, the group must start over.

Nitro Transport

A can of radioactive nitroglycerin (an orange juice can full of water) sits on a 12-inch-square board suspended above the ground by eight 6-inch ropes, which are held by the group. Group members must keep the can lifted and move it from point A to point B, a distance of about 25 to 30 feet. Together, they will look a lot like an octopus. All the youth must pick up the can, transport it, and set it down without spilling the nitroglycerin.

Triangle Tag

Divide into groups of four to play. To start, three players in each group hold hands in a triangle, facing each other; one of these three participants is the target. The fourth player stands outside the triangle as the chaser. The object of the game is simple—the chaser tries to tag the target. However, the dynamics are unique because all the players in the triangle cooperate to protect the target by moving and shifting, and the target cannot be tagged on the hands or arms or from across the triangle.

Some of the games presented here are also included in other Scouting handbooks, leader manuals, and training guides. Once youth leaders become comfortable with games they find in BSA literature, they may seek out additional, tested initiative games for their unit, district, or council programs. See the references section of this module for some suggested resources.

What We Have In Common

Equipment: A circle of chairs in an open space. You will need one less chair than the number in the group.

Method: Gather the group in a large circle and select one member to stand in the middle. The member in the middle states something he or she is interested in or has participated in or a place he or she has been. Everyone else who has that item in common must change seats. The last member who is left standing then takes a turn stating what they have in common with the group.

Scoring: You can keep score to see who changes seats most often, but this activity is more fun to just observe and learn a little bit about everyone in the group.

Notes: You may want to have some cards with topic ideas on them for those in the middle who may not be able to think of subjects that they have in common.

Telephone

Equipment: Phrases written on individual pieces of paper

Method: Divide the entire group into two teams. Have the members of each team form a line so that each can whisper to their immediate neighbors but not hear players any farther away. A word or phrase is given the first player in each line, who then whispers it as quietly as possible to his or her neighbor. The neighbor then passes on the message to the next player. The passing continues in this fashion until it reaches the player at the end of the line, who says to the judges the message he or she received. The first person then goes to the end of the line, and play continues with a new phrase until all members have had a chance to start.

Scoring: Give a point at the end of each round for correct answers. The team with the most correct answers wins.

Notes: The words and phrases used can come from word games such as Trivial Pursuit, Apples to Apples, or Catch Phrase.

Popcorn

Equipment: One lightweight, inflatable beach ball per group of four to eight players.

Method: Have each team form a circle. Tell them they are popcorn poppers and that the ball is a popcorn kernel. Their objective is to hit the ball in the air from team member to team member without it touching the ground. They should count each time the ball is hit. If the ball hits the ground, they must start their count over. Give them a minute or so and then ask them to try the popcorn popping again. After a couple of minutes, stop the game and ask again how many hits each team got.

Remind them that a good leader evaluates what went well, what didn't go well, and what could be done differently the next time. Have the players discuss how to improve their process. Give them a couple of minutes to try again.

Scoring: Have each group record every attempt. The team that has improved the most from the very first to the very last wins.

Notes: The real purpose of this game is not to get the most hits, but rather to improve each time by using the reflection technique of "what went well, what didn't go well, and what can be improved next time."

Rock Paper Scissors Lizard Spock

(Based on a game from the TV show "The Big Bang Theory")

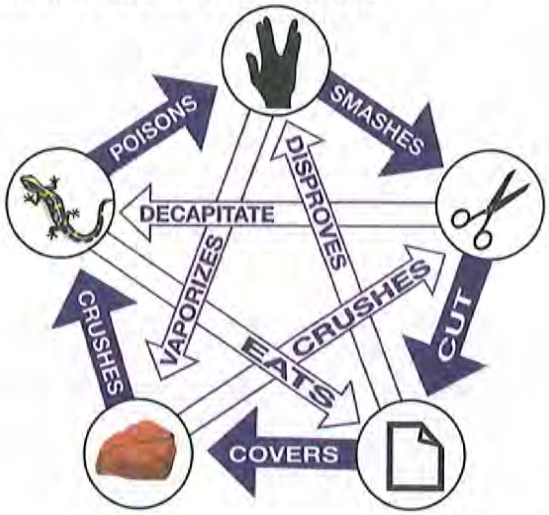
Equipment: Draw or list the rules on a whiteboard or poster or have a handout for each group.

Method: This game is played in groups of two to four players in a similar fashion to Rock Paper Scissors. The rules are as follows:

- Scissors cut paper.
- Paper covers rock.
- Rock crushes lizard.
- Lizard poisons Spock.
- Spock smashes scissors.
- Scissors decapitate lizard.
- Lizard eats paper.
- Paper disproves Spock.
- Spock vaporizes rock.
- Rock crushes scissors.

Scoring: Play as many rounds as possible in five to 10 minutes. Make note of who wins each round. The person with the greatest number of round wins is the winner of the game.

Notes: This game can be played simply or done as a tournament where winners move up into the higher brackets. The real goal is to evaluate the activity based on how well the players used the reflection technique of "what went well, what didn't go well, and what can be improved next time."



LEADERSHIP TASKS

Leadership tasks are very similar to initiative games, with one key difference—group members rotate being the leader, who then directs the task. All participants can provide strategy and skill, but the leader decides how they will work on the task. Like initiative games, leadership tasks are purposeful activities with learning processes and specific goals. Make sure to include a reflection time focused on the performance of the leader, and consider the following:

- Not everyone is comfortable leading an activity, so it is important that all participants demonstrate courtesy and respect.
- The leader may not always be able to direct the team to complete the task. This is not a problem, because the real purpose of the activity is the process—not the task itself.
- As in initiative games, participants should spend some time afterward reflecting on the task and, specifically, on the performance of the leader.
  - —Be careful not to be too critical; feedback is a gift, but it can also be hurtful if not offered in the proper spirit.
  - —Determine whether the leader used more of a coaching or a mentoring approach.
- Always end leadership tasks on a fun and positive note.

Night Crossing

This task is designed to assess the verbal communication skills of the leader and the listening skills of the participants. It focuses on the attributes of availability and support in a mentor. Provide blindfolds for everyone except the leader and about a dozen cardboard cylinders, 4 inches in diameter and 18 to 24 inches long (such as the tubes that come inside rolls of carpet or in PVC pipe).

- Start by blindfolding the participants but not the leader. Set the cylinders upright at regular stations along the course.
- The leader should coach the participants across the course without knocking over any cylinders. The leader must stand outside the course, not entering it at any time.
- If a participant hits and knocks over a cylinder, he or she must start over. Once participants have successfully navigated the course, allow them to take off their blindfolds.
- All participants can be on the course together, or one at a time at the discretion of the leader. Make sure to time the task for comparison with other groups.
- Once the task is completed, have participants evaluate how the leader did. Determine whether the leader used a coaching or mentoring style. Share what the leader did well, what could have been improved, and what should be done differently next time.
- Then rearrange the course and rotate the role of leader. Repeat the process until all have had an opportunity to lead.

Chenille Stem Art

This leadership task focuses on the mentoring attributes of patience, listening, and honesty. In groups of three, give each person a chenille stem and have them shape it into a representation of what they feel the last week was like. Each group member will take a turn playing the role of participant, leader, and observer.

- The participant describes his or her chenille stem and then tells about the experiences that week that led them to choose that shape.
- The leader provides feedback by rephrasing what the participant has just described.
- The observer then evaluates how well the leader has listened and provided feedback.
- Once this process is finished, rotate positions and cycle back so that everyone has the opportunity to serve in all three roles.
- Upon completion, have everyone evaluate what went well, what did not go well, and what can be improved.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Discuss how we are all different.
- Explain the importance of listening.
- Define what is a reflection.
- Explain the learning continuum.
- Discuss the difference between coaching and mentoring.

DEMONSTRATE

- Give examples of how youth change as they mature.
- Do an activity that demonstrates what we have in common.
- Show how to give feedback.
- Show how to do a reflection.
- Demonstrate the attributes of a good mentor.

GUIDE

- Guide Scouts through a standardized personality test.
- Lead a discussion about listening.
- Guide Scouts as they practice proper communication skills.
- Provide resources where Scouts can learn about individual personality traits.
- Guide Scouts through a practice reflection.
- Have Scouts role-play how to mentor.

ENABLE

- Recognize Scouts who demonstrate acceptance of others as they are.
- Create space in your meeting plans where Scouts can practice listening to each other.
- Encourage use of reflection in all activities.
- Create mentoring relationships in your unit.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Overnight Activity
Troop, team or crew leadership training—As a group, attend and complete Introduction to Leadership Skills for Troops or Introduction to Leadership Skills for Crews (ILST or ILSC). Those who have taken the course should participate as staff members.	District or council leadership training—As a group, attend and complete Trainer's EDGE or Kodiak X. Those who have already taken the course could participate as staff members.	Advanced leadership training—As a group, attend and complete a weeklong training course such as National Youth Leadership Training (NYLT), National Advanced Youth Leadership Experience (NAYLE), Kodiak, or Wood Badge. Those who have already been trained may be able to participate as staff members.

MENTORING

Meeting Plan: Understanding Each Other

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As participants arrive, have them write down their favorite color, favorite food, and which states they have lived in and draw a picture of their family. (These will be used in the group breakouts.)		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	Have an expert lead a discussion about how youths change and develop over time. A good resource is the ages and stages information in the *Troop Leader Guidebook*, volume 1.		7:10 p.m.
Skills Instruction 30 minutes	Explore judging people by how they dress. Look at photos of different people in magazines and discuss what we think of them based on appearance. Discuss how we make such judgments and whether that's right or wrong.		7:25 p.m.
	• Discuss prejudice. • Discuss how people react to others regarding race, age, gender, sexual orientation, religion, and nationality. • Discuss whether and how being in these different groups changes one's perspective.		
	• Take a standardized test to discover your own traits. This could range from a "What Cartoon Character Are You?" quiz to a more formal assessment like the Myers-Briggs Type Indicator personality assessment. • Compare results among group members and discuss areas of similarity and difference.		
Breakout Groups 15 minutes	• Share the list done in the preopening. Look for similarities and differences. • Work on group advancement needs.		7:55 p.m.
Game 15 minutes	Play "What We Have in Common" (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MENTORING

Meeting Plan: Listening—What Makes a Great Mentor

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play Rock Paper Scissors Lizard Spock (described earlier) as Scouts arrive.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law		7 p.m.
Group Instruction 10 minutes	Have a speaker discuss the importance of listening. Key points: • Since we have two ears and one mouth, we should listen twice as much as we talk. • Honest listening is at the heart of building a trusting relationship.		7:10 p.m.
Skills Instruction 40 minutes	**NOTE: The skills portion of this meeting consists of three listening activities. While these activities do increase in complexity, Essential, Challenging, and Advanced skills are most likely displayed in the content given.** **The Story You Heard** Read a short story, and have the members paraphrase it. Notice how members choose to interpret and prioritize certain information over the rest. **Ignore This** Pair up youth, and have one person discuss a hobby or passion he or she has, while the other person is instructed to ignore the speaker. Discuss the frustration that can come with not feeling heard or acknowledged, and review the body language and verbal remarks that a good listener should practice. **Where I Want to Go** In pairs, one member discusses a type of location he or she would like to visit, giving only subtle hints as to the specific place. The listener will have to pick up on these subtleties and at the end, recommend somewhere suitable for the speaker based on the explanation. The original speaker will confirm or deny the usefulness of the suggestion. The two will then discuss ways that people can remain alert as listeners, picking up on the appropriate cues to help them play a more vital role in discussions.		7:20 p.m.
Breakout Groups 15 minutes	• Begin planning participation in the main event. • Work on advancement requirements as needed.		8 p.m.
Game 10 minutes	Play Telephone (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MENTORING

Meeting Plan: What Went Well, What Didn't Go Well, and What Can Be Improved

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play "Human Knot": Have the group stand in a circle. Each player grabs the hands of two different people who are not next to him or her. The goal is to disentangle the human knot without letting go of grasped hands.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law		7 p.m.
Group Instruction 25 minutes	Discuss reflection techniques. Explain that when attempting a challenge, a high-performing group will always ask these questions: • What went well? • What didn't go well? • What can be improved next time? Discuss how this technique can be used to improve group performance.		7:10 p.m.
Skills Instruction 20 minutes	The skills portion of this meeting consists of various initiative games. The Initiative Games section of this module lists four activities that can be done at almost any skill level. Try one or more of these options (or substitute another game, provided the process of reflection can be used to evaluate performance): • Everybody Up • Stepping Capsules • Nitro Transport • Triangle Tag After each initiative game, evaluate what went well, what did not go well, and what could be improved.		7:35 p.m.
Breakout Groups 15 minutes	• Reflect in each group about your last main event. What went well, what didn't go well, and what can be improved? • Work on group tasks and advancement.		7:55 p.m.
Game 15 minutes	Play Popcorn (described earlier). Then evaluate what went well, what didn't go well, and what can be improved.		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MENTORING

Meeting Plan: Attributes of a Good Mentor

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play Popcorn (described earlier). This preopening reinforces the game from the previous week. Evaluate what went well, what didn't go well, and what can be improved.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law		7 p.m.
Group Instruction 20 minutes	Discuss the learning continuum: **Level One.** You read about it. **Level Two.** Someone teaches you about it. **Level Three.** You learn from hands-on experiences. **Level Four.** You become proficient by practicing the skill. **Level Five.** You teach the skill to others. Discuss the difference between coaching and mentoring. Discuss the attributes of a good mentor, such as open-mindedness, patience, listening ability, availability, communication skills, honesty, and support.		7:10 p.m.
Skills Instruction 20 minutes	The skills portion of this meeting consists of various leadership tasks. Like initiative games, leadership tasks are purposeful activities with specific goals and learning processes that also include a reflection. The major difference is that here, the reflection is focused specifically on the performance of the leader. **NOTE: Due to the sensitive nature of this type of reflection, make sure to review the list of things to consider in the Leadership Tasks section of this module.** That section lists three activities that can be done at almost any skill level. Try one or more of these options: • Chenille Stem Art • Night Crossing After each activity, evaluate what went well, what did not go well, and what could be improved.		7:30 p.m.
Breakout Groups 15 minutes	Work on group tasks and advancement.		7:55 p.m.
Game 15 minutes	Play Rock Paper Scissors Lizard Spock (described earlier). Do an elimination tournament. Then evaluate what went well, what didn't go well, and what can be improved.		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MENTORING

Main Event: Troop, Team, or Crew Leadership Training

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: _____

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

As a group, attend and complete Introduction to Leadership Skill for Troop or Crews (ILST or ILSC). Those who have taken the course should participate as staff.

Equipment List	• Uniform • Lunch (if not provided) • Pen and paper for notes • Other items as assigned
Activity	• Learning leadership skills is the first step to learning how to be a mentor. • This training is done at the unit level. Those who have been through this training should participate as instructors.
Safety	

Notes

MENTORING

Main Event: District or Council Leadership Training

Date(s)_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: _____

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

As a group, attend and complete Trainer's EDGE or Kodiak X. Those who have already taken the course should participate as staff.

Equipment List	• Registration form • Uniform lunch (if not provided) • Pen and paper for notes • Other items as assigned
Activity	• Participate in a district- or council-run Trainer's EDGE or Kodiak X course. • Challenge your skills in teamwork, brainstorming, and thinking outside of the box.
Safety	Some activities in Kodiak X may be physically demanding. Be aware of personal limitations.

Notes

MENTORING

Main Event: Advanced Leadership Training

Date(s)_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: _____

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

As a group, attend and complete a week-long training course such as National Youth Leadership Training (NYLT), National Advanced Youth Leadership Experience (NAYLE), Kodiak, or Wood Badge. Those who have already been trained may be able to participate as staff.

Equipment List	• Registration form • Appropriate medical form • Uniform • Camping equipment as needed (see participant list) • Pen and paper for notes • Other items as assigned
Activity	• Check prerequisite requirements for these courses to ensure eligibility. For example, NYLT is a prerequisite for NAYLE. • Register for NYLT, NAYLE, Kodiak, or Wood Badge. • If already trained, apply for staff and participate in pre-course work.
Safety	• Be aware of special medical or dietary needs. • Always follow Youth Protection guidelines.

Notes

Wood Badge is considered adult training. However, Venturers and Sea Scouts over the age of 18 can attend.

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Megginson, David and David Clutterbuck. *Mentoring In Action: A Practical Guide for Managers,* 3rd ed. Kogan Page, 2006.

Probst, Kristie. *Mentoring for Meaningful Results: Asset-Building Tips, Tools, and Activities for Youth and Adults.* Search Institute Press, 2006.

Whitmore, John. *Coaching for Performance: GROWing Human Potential and Purpose—The Principles and Practice of Coaching and Leadership,* 4th ed. Nicholas Brealey Publishing, 2009.

Initiative Game Resources

Newstrom, John, and Edward Scannell. *The Big Book of Team Building Games: Trust-Building Activities, Team Spirit Exercises, and Other Fun Things to Do.* McGraw-Hill, 1997.

Rohnke, Karl, and Steve Butler. *Quicksilver: Adventure Games, Initiative Problems, Trust Activities and a Guide to Effective Leadership.* Kendall Hunt Publishing, 1995.

Snow, Harrison. *Indoor/Outdoor Team Building Games For Trainers: Powerful Activities From the World of Adventure-Based Team Building & Ropes Courses.* McGraw-Hill, 1997.

Websites

The Trainer's EDGE
Website: http://www.scouting.org/filestore/pdf/26-242.pdf

National Mentoring Month
Website: http://www.nationalmentoringmonth.org

Scouting Games
Website: http://www.scouting.org/filestore/pdf/games.pdf

Small Group Games
Website: http://www.toolsformentoring.com/small-group/relationship-builders.html

Related Program Features

Communication, Ethics, Project Planning

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Pitch, Tempo, and Rhythm

Music is essentially thoughts and feelings expressed through sound and rhythm. Joy, celebration, happiness, anger, sorrow, fear, love—the list of emotions that can be expressed by music could go on and on.

Music has been around as long as history has been recorded. It is in our nature to sing or find a way to make musical sound with objects we call musical instruments. There are many types of instruments to explore, and they can be combined to make the most interesting music. Traditional instruments can form a band or orchestra, or you can repurpose milk jugs, trash can lids, and plastic bins to create your own junk drum ensemble. And don't forget the human voice—the most versatile instrument of all.

As you embark on a journey of musical exploration, you will discover how music reflects culture. Every part of the world can be identified by its "sound." Whether you create music, build instruments, or simply sit back and enjoy the artistry of others, you will have had a magical experience. May this journey inspire you and those who share in your musical endeavor.

Objectives

This month's activities should:

- Help Scouts learn about the five groups of musical instruments.
- Give Scouts knowledge of musical symbols and terminology.
- Prepare Scouts to go to a live performance or participate in a performance.
- Give Scouts the opportunity to compose music.
- Teach Scouts how to catalog a personal or family music collection.
- Help Scouts learn about the development of music and influential musicians in the United States.

RELATED ADVANCEMENT AND AWARDS

- Bugling, Music, and Theater merit badges

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing music as your program feature during your planning meetings.

1. Do Scouts in our unit have musical interests and abilities?
2. Would our unit benefit from the opportunity to share musical talents with the community?
3. Are there any music teachers or other individuals in the music profession who could help?
4. Do we have local venues that host live performances such as symphony orchestras, opera, choral music, or pop music?
5. Do our schools have music programs where members of the unit can participate in a musical group such as band, choir, or orchestra?
6. Does a member of our unit have the ability to compose music?
7. If we were to build traditional musical instruments, is there someone in the area who is good with tools and could assist?
8. How can we involve our parents?
9. What changes should we make to the sample meeting plans that would fit our needs better?

PARENTS CAN HELP WITH THE MUSIC PROGRAM FEATURE BY:

1. Sharing their musical skills and abilities and supporting your activities
2. Helping your group find someone who can assist with building musical instruments
3. Providing transportation for the main event
4. Introducing you to a local music teacher or music professional
5. Assisting in sorting and organizing the family music collection

MUSICAL INSTRUMENTS

Musical instruments are frequently classified by the way they generate sound.

Woodwinds generate sound when a column of air is made to vibrate as it passes over a reed or opening. Woodwinds include clarinets, saxophones, oboes, and flutes.

Brasswind instruments generate sound by air passing through the player's lips, which "buzz" in the instrument's mouthpiece. Slides or valves are used to change the length of the tubing, thus changing the pitch. There are two different kinds of brass: The tuba, baritone, and trombone are examples of low brass; the trumpet and French horn are examples of high brass.

Percussion instruments generate sound, with or without a definite pitch, when hit with an implement, shaken, rubbed, scraped, or struck by any other action that sets the object into vibration. Examples include chimes, glockenspiel, handbells, marimba, bass drum, cymbals, and xylophone.

String instruments generate sound when a string is plucked, strummed, slapped, otherwise manipulated. The guitar, violin, mandolin, ukulele, harp, autoharp, harpsichord, and piano are examples of string instruments.

Electronic instruments generate sound by creating an electrical audio signal that ultimately drives a loudspeaker. The digital piano, electronic keyboard, organ, analog synthesizer, digital synthesizer, MIDI (Musical Instrument Digital Interface) instruments, wind synthesizer, digital drums, and virtual musical instruments are examples of electronic instruments.

MUSIC GAMES

Symphony Orchestra (played like Fruit Basket)

Equipment: Chairs

Method: Have the group sit in chairs in a circle in a large room or open outdoor area. There should be enough chairs for all the players but one; that player is the "conductor." Assign each of the other players a type of instrument by going around the circle and saying, "Wind, percussion, brass, electronic, keyboard," etc., until everyone has a label. The conductor stands in the middle of the circle and calls out a type of instrument. When he does so, all the players assigned to that group must get up and scramble to find another seat. The conductor, meanwhile, also tries to get a seat. Whichever player is left standing becomes the new conductor, and the old conductor assumes the player's instrument type.

Variation: To enhance learning, assign each player an actual instrument instead of an instrument group (e.g., bass drum instead of percussion). Call out instrument groups as before; players must then figure out which group they belong in.

Note: Be creative in deciding who becomes the conductor first. For example, it could be the person with the closest birthday or the most siblings.

Rhythm Gossip

Equipment: A large chalkboard or dry erase board, chalk or dry erase pens, erasers

Method: Teach the group some basic rhythm patterns such as four quarter notes; two eighth notes, quarter, quarter, quarter; or quarter, two eighths, two eighths, quarter. Add rests to make it more challenging. Form two teams, and have them stand in a single-file line facing the chalkboard or dry erase board. The player at the front of the line has chalk or pen at the ready. The player at the back of the line taps a rhythm on the shoulder of the next player, who passes the rhythm to the person in front of him, and so forth until it reaches the person at the front. That person puts the rhythm on the board. After each round, the player at the front moves to the back, and the next player becomes the scribe. Continue until everyone has had a chance to be the scribe.

Scoring: Each correct answer scores a point for the team. Play to as many points as you wish.

Name That Tune, Instrument, or Genre

Equipment: CD or MP3 player with an assortment of music, 30-second timer, bell or buzzer for each team

Method: Play a musical selection. Teams try to buzz in and name the song.

Variations: If you have recordings of instrumental solos, teams can try to name the instruments or instrument groups. If you have recordings of various genres of music, teams can try to name the genres they hear. (Keep these broad: classical, jazz, pop/rock, gospel, etc.)

Scoring: Each correct guess earns a point; first team to score 10 points wins.

Minute to Win It

Equipment:

- Station 1: a collection of 10 to 20 CDs of various artists and genres
- Station 2: paper and pencil
- Station 3: flash cards that show the names of instruments by family (percussion, woodwind, brass, string, electronic) and each member of each family (e.g., soprano saxophone, alto saxophone, baritone saxophone)
- Station 4: CD or MP3 player with a collection of pop songs
- Station 5: music rhythm flash cards that build the rhythm tree (one whole note, two half notes, four quarter notes, eight eighth notes, 16 sixteenth notes) along with a similar set for rests

Method: Set up stations as described above. Players visit the stations to do the following:

- Station 1: Organize the CDs in alphabetical order by artist and then by title in less than a minute.
- Station 2: On a piece of paper write the order of dynamics from soft to loud, Italian terms for tempo from slow to fast, and all five musical families in less than a minute. Dynamics are pianissimo (pp), piano (p), mezzo piano (mp), mezzo forte (mf), forte (f), and fortissimo (ff). Italian terms include grave (extremely slow), largo (very slow), andante (at a walking pace), moderato (moderately), allegro (quick and bright), and presto (extremely fast). Musical families are percussion, woodwind, brass, string, and electronic.
- Station 3: In one minute, sort the cards by family (woodwind, brass, string, etc.) and then put each family in order from highest pitch to lowest.
- Station 4: Identify as many one- or two-second song snippets as possible in one minute.
- Station 5: Set up the cards with the whole note on top, two half notes below the whole note, four quarter notes below the half notes, etc. Do the same with rests.

Scoring: Time the players at each station. Give 3 points to the fastest player, 2 points to the second fastest, and 1 point to the third fastest. Player with the most points overall wins.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain the characteristics of musical instruments in each family.
- Describe the structure of music composition.
- Explain how a basic melody is constructed.
- Discuss basic techniques and safety of equipment and tools for building musical instruments.
- Explain the basic protocol and etiquette at a live concert; tell the unit about the music that will be performed.

DEMONSTRATE

- Show pictures or display instruments from each musical instrument family.
- Play musical samples of each family to demonstrate how they sound.
- Demonstrate how to draw music notation and rhythms.
- Demonstrate basic melodic structure using a major scale.
- Show how to take measurements and construct parts of a musical instrument.
- Play samples of the music that will be performed at a live concert.

GUIDE

- Have the Scouts teach each other in breakout groups, explaining the characteristics of musical instruments in each musical instrument family.
- Have Scouts practice drawing music notation and rhythms.
- Help individuals create a melody.
- While at a concert, help the members of the unit practice proper etiquette.
- Help the members of the unit brainstorm ideas about how a cultural night might look in their unit.

ENABLE

- Have each individual identify musical instruments from pictures or sound samples.
- Let individuals write melodies that complement each other in a song or composition.
- Let Scouts assemble the parts and make final adjustments to their homemade instruments.
- At a live concert, have Scouts take notes on what they hear, feel, and see as the music is being performed.
- Let Scouts plan and implement their ideas and create the agenda for a cultural night.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Evening Activity	Evening Activity	Evening Activity
A concert outing—Attend a live performance of a local or touring band, orchestra, or choir. Prior to the event, find out what music will be played and familiarize yourself with the performers, composers, and genres. Learn about protocols and etiquette for the type of concert you will be attending. Write a review of what you felt during the performance.	Cultural night—Host a musical cultural night to show what you have learned about music. Some Scouts might make displays about music history, composers, and musical instrument families. Others might showcase their music collections or the instruments they have made. Have background music playing, and devote a portion of the evening to performances by members of the unit.	Unit recital—Hold a recital to showcase the musical talents of your unit. Set up a program that includes solo and ensemble performances of music in a variety of genres. Encourage members of the unit to compose pieces of music to include in the recital. Invite family members, neighboring Scout units, and members of the chartered organization and of the community.

MUSIC

Meeting Plan: Genres and Composers

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As Scouts arrive, challenge them to sort flash cards of musical instruments into groups. Have music playing in the background to set the tone for the night. If possible, use several interpretations of a familiar song in different genres.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	• Introduce the group to the different possible main events. • Have them discuss what main event they may want to pursue.		7:10 p.m.
Skills Instruction 35 minutes	• Discuss different genres in music. • Research different musical groups in your area that perform in these genres.		7:25 p.m.
	• Review the information above. • Discuss which members of the unit have musical ability and could participate in a unit recital. Find out which genres they like to perform.		
	• Review the information above. • Talk about music composers over the centuries. • Study scores and listen to recordings of the music. • Try to identify characteristics of the period in which they wrote.		
Breakout Groups 15 minutes	• Begin making plans for the main event. • Work on advancement and Scout skills as needed.		8 p.m.
Game 10 minutes	Play Symphony Orchestra (described earlier)		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MUSIC

Meeting Plan: Instruments and Ensembles

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Prepare flash cards of musical notation such as quarter notes and rests, half notes and rests, etc., and cards with the names of each of these symbols. Have the Scouts organize them side by side, matching notation with the description. Have music playing in the background that resembles the music they'll be performing or listening to or that relates to the instruments they will be building or that comes from an individual family's music collection.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law		7 p.m.
Group Instruction 15 minutes	Practice identifying instruments in the five different musical groups. Use flash cards, and have the members shout out the names. For an added challenge, include less familiar instruments like the basset horn or zither.		7:10 p.m.
Skills Instruction 25 minutes	• Using the Internet or other sources, determine the instrument makeup of various ensembles (symphony orchestra, string quintet, jazz band, rock band, etc.).		7:25 p.m.
	• Review the information above. • Study printed music for various instruments, and discuss any instrument-specific characteristics.		
	• Review the information above. • Discuss how leadership plays a role in musical ensembles. Who sets the tempo? Is there a director, as in an orchestra, or does one of the players direct? Who leads each section of larger ensembles?		
Breakout Groups 25 minutes	• Continue making plans for the main event. • Work on advancement and Scout skills as needed.		7:50 p.m.
Game 10 minutes	Play Rhythm Gossip (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MUSIC

Meeting Plan: Collecting Music

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Play Musical Chairs using excerpts of the music that will be featured at the concert your unit will attend or the genres you discussed last week.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Learn three songs that you could teach to a Cub Scout pack or other group. • Have a Music merit badge counselor available to work with Scouts and sign off requirements they have completed.		7:10 p.m.
Skills Instruction 40 minutes	Catalog a collection of CDs belonging to one of your Scouts, or review how a collection of MP3s is organized in a program like iTunes.		7:20 p.m.
	• Review the information above. • Using the Internet or other sources, find a favorite artist's discography. Discuss ways to complete your collection of the artist's works.		
	• Review the information above. • Discuss the ethics of file-sharing and illegal downloads.		
Breakout Groups 15 minutes	• Continue making plans for the main event. • Work on advancement and Scout skills as needed.		8 p.m.
Game 10 minutes	• Play Name That Tune, Instrument, or Genre (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MUSIC

Meeting Plan: Mood and Meaning

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have a Music merit badge counselor available to work with Scouts and sign off requirements they have completed.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	Have a Music merit badge counselor available to work with Scouts and sign off requirements they have completed.		7:10 p.m.
Skills Instruction 30 minutes	Brainstorm a list of moods. Using someone's CD or MP3 collection, find songs or other compositions that convey those moods and discuss how music translates those moods.		7:25 p.m.
	• Review the information above. • Read the lyrics of several popular songs. Discuss how the lyrics support the mood of the song and whether the music and lyrics communicate the same mood.		
	• Review the information above. • Identify several songs or compositions that have become identified with a particular country, political movement, or cause. Using the Internet or other sources, learn more about those connections.		
Breakout Groups 15 minutes	Review the group's participation in the main event.		7:55 p.m.
Game 15 minutes	Play Minute to Win It (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

MUSIC

Main Event: A Concert Outing

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Attend a live performance of a local or touring band, orchestra, or choir. Prior to the event, find out what music will be played and familiarize yourself with the performers, composers, and genres. Learn about protocols and etiquette for the type of concert you will be attending. Write a review of what you felt during the performance.

Equipment List	• Notepads and pencils • Program notes about the music • CDs or MP3s of the music featured at the concert so you can study it prior to the concert
Activity	• Familiarize yourself with the music that will be featured at the concert. Pick a typical Scout night prior to the concert to listen to excerpts of the music you will hear. • Choose a concert venue, date, and time. Buy tickets, if necessary. • If possible, make arrangements to visit the venue ahead of time. Learn about the different types of workers at the venue, such as ushers, ticket takers, stage crew, sound or lighting technicians, backstage crew, etc. • Attend the concert, paying attention to etiquette practices. Also, take notes as you listen. Afterward, discuss how you feel about the music.
Safety	Use the buddy system; cell phones are a good idea as appropriate. Have cell phone numbers of leaders in case you are separated. Know the meeting place outside the venue.

Notes

It would be enjoyable to choose a genre familiar to everyone, but when choosing the concert, be adventurous and pick a less familiar one. Camping could easily be included if you are traveling to a performance out of town.

MUSIC

Main Event: Cultural Night

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Host a musical cultural night to show off what you have learned about music. Some Scouts might make displays about music history, composers, and musical instrument families. Others might showcase their music collections or the instruments they have made. Have background music playing, and devote a portion of the evening to performances by unit members.

Equipment List	• Presentation boards • Three-ring binders with organizers • Materials for making instruments • MP3 player and speakers • Tables, chairs • Microphone and sound system • Parking lot ushers' vests with reflective stripes
Activity	• Choose a date, location, and time to hold the event. • Decide which youth and adults will help. • Have members of the unit decide what kind of event they want to hold; this could include musical performance, a presentation of homemade instruments, an organization of family CD collections, displays of musical instruments, etc. • Organize rehearsals, building materials, and places to build instruments. • Start planning and building homemade instruments. • Learn about instrument families. • Choose, organize, and start rehearsing music that will be performed.
Safety	• Follow safety procedures while building musical instruments. • Consider parking lot safety for the date of the event. Organize parking attendants, if needed.

Notes

MUSIC

Main Event: Unit Recital

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 to 6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Hold a recital to showcase the musical talents of your unit. Set up a program that includes solo and ensemble performances of music in a variety of genres. Encourage members of the unit to compose pieces of music to include in the recital. Invite family members, neighboring Scout units, and members of the chartered organization and of the community.

Equipment List	• Microphone, stand, and public address system for master of ceremonies • Chairs and music stands for performers • Chairs for audience • Extension cords, amplifiers, and patch cords • Musical instruments • Printed programs with a list of the performers and notes on the music being performed
Activity	• Choose a date, location, and time of the event. • Choose youth and adults who will assist in preparing for the event. • As a unit, discuss and choose the performers. • Decide who is interested in composing, and start learning basic composition structure and practices. • Organize solos, small ensembles, and/or full groups. • Individuals and members of groups decide what they will perform, and start rehearsing the music. • Set rehearsal dates. There may need to be extra rehearsals outside the regularly scheduled meeting night. • Choose the date of the dress rehearsal. • The master of ceremonies needs to organize an agenda, and members of the unit need to turn in to the emcee as soon as possible information about what they will be performing, composers' names, and notes about the music.
Safety	• Contact the fire marshal for steps to take in preparing a performance area. If an event is large enough, some areas require certain safety steps to set up the room to meet fire safety rules and codes. • Parking lot ushers may be needed if you expect a large audience. Safety vests should be worn by parking lot ushers.

Notes

Consider making the event a money-earning project; if the unit chooses to do that, be sure to complete a Unit Money-Earning Application, No. 34427.

REFERENCES

Books

Music and Bugling merit badge pamphlet

Burkholder, J. Peter, Donald Jay Grout, and Claude V. Palisca. *A History of Western Music*, 9th ed. W.W. Norton and Co., 2014.

Hindemith, Paul. *The Craft of Musical Composition*. Schott Publishing Co., 1984.

Websites

Country Music Association
Website: http://www.cmaworld.com

DIY.org's Instrument Maker Page
Website: https://diy.org/skills/instrumentmaker

Drum Corps International
Website: http://www.dci.org

International Bluegrass Music Association
Website: http://www.ibma.org

Red Hot Jazz Archive
Website: http://www.redhotjazz.com

Rock and Roll Hall of Fame and Museum
Website: http://www.rockhall.com

Smithsonian: Music in the Museum
Website: http://americanhistory.si.edu/collections/music.cfm

U.S. Naval Academy Drum and Bugle Corps
Website: http://www.usna.edu/usnadb

WannaLearn.com's Building Musical Instruments Page
Website: http://www.wannalearn.com/Crafts_and_Hobbies/Woodworking/Building_Musical_Instruments

Related Program Features

Communication, Multimedia, Project Planning, and Spectator Sports

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Acknowledgments

We are grateful to music educator Scott Winks, Vancouver, Washington, for helping to develop the Music program feature.

Music Composition

Composing music is much like writing poetry, a short story, or a novel. The first step in composing music is to determine the sounds you want. Will it be sung by an individual, small group, or choir? How about an instrumental piece? Will you compose for one instrument, a small group of the same instrument, or a full band or orchestra?

Once you have chosen the type of instrumentation or voice for which you are composing, you need to know the ranges of the voice and instruments so that you do not write above or below the capability of the individual singing or the instruments being played. Invite a music teacher in your community to share these ranges with you, or do your own research.

A basic knowledge of music notation and terminology is necessary as well. Musical signs and terms give the performer instructions on how to perform the music in a certain way. Those who have taken private music lessons or a school ensemble class will be able to draw on this knowledge. Invite music teachers to help with composition.

Make a Traditional Musical Instrument

High-quality musical instruments can cost hundreds or even thousands of dollars. Some, like the famous violins made around 1700 by Antonio Stradivari, have sold for millions of dollars.

You don't have to spend a lot of money, however. You can make musical instruments out of materials you find around your house or that you purchase for just a few dollars. Find the plans to build a simple musical instrument online, then ask a craftsperson to help you build it. When you are done, learn how to play it, and perform at a unit talent show or recital. If everyone in the unit makes the same instrument or instruments that can be played together, you could have an ensemble perform.

Attend a Live Concert

The possibilities to hear live music are innumerable. You could attend a school music program; a local middle or high school's band, choir, or orchestra concert; or a concert by a college or university ensemble. You may even have access to a professional orchestra or vocal ensemble. Find out about performances in your area and plan to attend one. Try to learn about the music to be performed before you go. While listening, make notes about your feelings on how the music affects you.

Hold a Unit Cultural Night

Your unit can hold a cultural night where members display handmade musical instruments, share copies and recordings of musical compositions, or exhibit presentations on music history. Have a recital in conjunction with the displays during which members of the unit play their instruments, perform their compositions, or play music they have been working on in lessons or at school.

ORIENTEERING

The Thinking Sport

Imagine a baseball player who never leaves the batting cage or a football player who never suits up for a game. Many Scouts are like that when it comes to map and compass use. They learn how to read maps and follow compass headings, but they never really apply those skills.

One way to use map reading and compass skills is when you are hiking or backpacking. If there is a fork in the trail you are following, you want to follow the right path, not a path that leads straight up a mountain or over a cliff!

But another way to use those skills is in the sport of orienteering. This is an exciting, fast-paced game where players race across the countryside looking for controls—square orange-and-white markers—that are marked on a map. The fastest player wins, but only if he or she visits all the controls in the correct order. (Special punches at the controls—or high-tech equivalents—keep the players honest.)

This month's activities will teach Scouts the skills they need to keep themselves found when hiking and backpacking—and the skills they need to compete in orienteering meets.

Objectives

This month's activities should:

- Teach Scouts basic map and compass skills.
- Give Scouts multiple opportunities to practice their map and compass skills.
- Introduce Scouts to the sport of orienteering.
- Help Scouts work toward the Orienteering merit badge.
- Foster self-confidence and team building.

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot requirement 2
- Second Class requirements 1a, 1b, and 3a
- First Class requirements 1, 2, and 3
- Backpacking, Geocaching, Hiking, and Orienteering merit badges
- Backpacking, Operation On-Target, and Orienteering Varsity Scout activity pins
- Ranger: Requirement 5
- Quest: Requirement 5

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing orienteering as your program feature during your planning meetings:

1. What will our main event be?
2. Where will we have our main event?
3. How proficient are our Scouts and leaders in orienteering skills?
4. How can we involve parents?
5. Are there local orienteering clubs that could provide expertise?
6. Can we find local or regional orienteering meets to participate in?
7. Do we have access to enough orienteering compasses for meetings and the main event?
8. Do we have access to orienteering controls, cards, and punches or e-boxes?
9. Where can we get topographical maps of our area and the site of the main event?
10. How much of the Orienteering merit badge and other related advancement and awards requirements can we complete this month?
11. How can we use orienteering activities to promote team building?
12. To meet our needs, what should we change in the sample meeting plans?

PARENTS CAN HELP WITH THE ORIENTEERING PROGRAM FEATURE BY:

1. Sharing their expertise
2. Providing transportation for the main event
3. Supplying compasses and other equipment
4. Helping to set up and dismantle orienteering courses

ORIENTEERING BASICS

The sport of orienteering began in the late 19th century in Scandinavia. In its classic form, orienteers (competitors) are given a topographic map with a series of controls marked on it. They find these controls in order and return to the starting point; the orienteer with the best time wins.

Controls, which are square orange and white kites, hang from trees or are attached to posts in the ground. Attached to each is either a punch that marks a distinctive pattern on a control card or an e-box where orienteers insert an e-card or memory stick (something like a USB flash drive) to record the control number and time. Controls appear at distinctive locations such as a gate or the crest of a hill.

Controls, punches, and punch cards are relatively inexpensive, and you may be able to borrow them. However, you could also use alternatives. For example, you could use laminated pieces of cardboard with code words written on them that Scouts have to write down as they go through the course.

Orienteering tests your body and your brain. Part of the fun is figuring out the best route between control points—which probably isn't a straight line. For example, you might find a "handrail," a road that closely parallels the route you need to follow; you could follow it a certain distance and then head back into the woods to the control. Or you might "aim off," intentionally veering a little to the right so that when you have gone the right distance you know the control will be on your left.

Note: While orienteering is primarily an individual sport, BSA Youth Protection procedures call for using the buddy system when participating in orienteering meets.

COURSE DESIGNATIONS

Orienteering USA uses different levels to indicate course difficulty.

COLOR	DIFFICULTY	TERRAIN	LENGTH
White	Intended for novice orienteers	Trails	2–3 km (1.25–2 miles)
Yellow	Intended for advanced beginners	Mostly trails	3–5 km (2–3 miles)
Orange	Intended for intermediate-level orienteers	Cross-country	4.5–7 km (2.75–4.25 miles)
Brown	Technically advanced and physically demanding; designed for older orienteers in terms of distance, climb, and terrain	Cross-country	3–5 km (2–3 miles)
Green	Technically advanced and of a moderate distance	Cross-country	4.5–7 km (2.75–4.25 miles)
Red	Technically advanced with a high degree of physical difficulty appropriate for elite female competitors	Cross-country	6–10 km (2.5–6.25 miles)
Blue	Technically advanced with a high degree of physical difficulty appropriate for elite male competitors	Cross-country	8–14 km (5–8.75 miles)

ORIENTEERING VARIATIONS

There are several variations to the classic form of orienteering. Here are a few.

Score orienteering: Orienteers visit as many controls as possible in a given time. The controls are assigned different point values depending on difficulty.

Night orienteering: Orienteers run a course in the dark. Reflective markers are attached to the controls so orienteers can find them with a flashlight.

Ski orienteering, canoe or kayak orienteering, horseback orienteering, and mountain bike orienteering: As the names imply, orienteers travel by means other than on foot.

ROGAINE orienteering: A form of score orienteering (stands for Rugged Outdoor Group Activity Involving Navigation and Endurance) where teams of two to five members compete for 24 hours (the length of a championship ROGAINE) or longer. Shorter variations sometimes occur concurrently with a longer event.

ORIENTEERING GAMES

Compass Triangle Game

Equipment: For each player, a compass and an index card with his or her name on it

Method: Players start at various spots on a parking lot or other open area, marking their spots with index cards. They determine a bearing (say 30°) and walk 50 steps in that direction. They add 120° to the first bearing and walk another 50 steps. Finally, they add 120° to the second bearing and walk another 50 steps. (If a calculated bearing is more than 360°, subtract 360° to get the correct bearing.) Players should end up back where they started.

Scoring: The winner is the player who gets closest to the starting point.

Variation: Have players wear bags over their heads so they can read their compasses but not look ahead. (Assign each a guide for safety.) This challenge will test their ability to walk in a straight line and will prevent them from cheating as they approach the starting point on the final leg.

Map Symbol Relay

Equipment: For each team, a set of flash cards with numbered map symbols, including contour lines

Method: The teams line up in relay formation facing a wall on which the flash cards have been posted. On signal, the first Scout from each team runs up, names the first symbol, runs back, and tags the next Scout who runs up and names the second symbol. Continue the relay until all symbols have been named.

Scoring: Score 2 points for each symbol correctly named, and deduct 1 point for each symbol incorrectly named. The team that finishes first scores 10 points.

Crash Landing

Equipment: Identical topographic maps for each team

Method: Announce that an airplane has crashed at a certain point on the map, some distance from a road. Have teams do the following:
1) Locate the scene of the crash on the map;
2) Determine the route to be taken by car to a point nearest the crash scene; 3) Determine the route to be taken on foot from the car to the crash scene; 4) Determine potential hazards along the route; 5) List first-aid materials to be taken to the crash site by a rescue squad;
6) List other equipment to be taken.

Scoring: The team that does the best job on the total project wins.

Orienteering Scavenger Hunt

Equipment: A compass, a punch card, and a topographic map of the area around your meeting place for each team, 10 or more orienteering controls and punches (can be homemade)

Preparation: Hide the controls and punches in the area around your meeting place and mark them on the maps. Assign each team five controls to visit, each in a different order (so they can't follow each other and don't get bunched up).

Method: On a signal, teams look for their assigned controls, punch their cards, and return to the starting point.

Scoring: The team that returns first with the correct punches wins.

For other good games and contests, see the following in the "Games" section of *Troop Program Resources:*

- Blind-Flying Relay
- Blindfold Compass Walk
- Compass Facing
- Map Symbol Kim's Game
- Octagon Compass Course

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Define orienteering.
- Teach basic map symbols.
- Discuss the parts of a compass.
- Explain declination and how to compensate for it.
- Review the steps in completing an orienteering course.
- Discuss how to follow Leave No Trace principles while orienteering.

DEMONSTRATE

- Show videos of actual orienteering meets.
- Demonstrate how to set a compass heading.
- Demonstrate how to orient a map.
- Show orienteering controls and how punches work.

GUIDE

- Work one-on-one with Scouts as they practice using compasses.
- Have Scouts identify features on a topographic map of a familiar location.
- Have Scouts sketch topographic maps of the area around your meeting place.
- Challenge Scouts to maintain their known pace over varying terrains.
- Ask Scouts what techniques they would use to navigate to given points on a topographic map (e.g., handrails, catching features, aiming off).

ENABLE

- Give Scouts a simple compass course to follow and evaluate their performance.
- Encourage Scouts to make flash cards so they can practice map symbols.
- Have Scouts use the EDGE method to teach younger Scouts how to read a compass.
- Challenge Scouts to create compass or orienteering courses for Webelos Scouts.
- Have Scouts research orienteering clubs and meets in your area or in the area where you want to do your main event.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Day Activity	Overnight Activity
Orienteering meet—Participate in a public orienteering meet in a local park. Rub shoulders with orienteering club members and learn more about the sport.	Webelos Scout orienteering field day—Plan an orienteering field day for Webelos Scouts from your district. Teach them basic orienteering skills in the morning, then let them compete in an orienteering meet in the afternoon.	Orienteering extravaganza—Travel to a ROGAINE at a distant location. Camp overnight before and after the meet.

ORIENTEERING

Meeting Plan: Compasses

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a 100-foot course near your meeting place. As participants arrive, have them walk the course and calculate their pace (how far they travel every two steps).		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Explain what orienteering is. • Outline the next four weeks' meetings. • Give details of the main event.		7:10 p.m.
Skills Instruction 40 minutes	• Learn how to use a compass. • Practice following given bearings outside your meeting place. • Practice following those bearings without going off course.		7:20 p.m.
	• Review the skills above. • Practice determining the bearings to specific landmarks outside your meeting place.		
	• Review the skills above. • Practice calculating and following back bearings (which take you from a destination back to the starting point); add or subtract 180° to get a back bearing.		
Breakout Groups 15 minutes	• Discuss plans for the main event. • Review what personal and group equipment will be needed.		8 p.m.
Game 10 minutes	Play Compass Triangle Game (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ORIENTEERING

Meeting Plan: Maps

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Draw a large chalk circle on the parking lot. Place an index card marked "North" at the northernmost point. As participants arrive, give them index cards marked with other compass points. Have them place their cards in the correct spots on the circle.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	• Obtain topographic maps of your meeting place, a favorite campsite, and/or other familiar locations. • Point out landmarks on the maps and explain the symbols that represent those landmarks. • If possible, compare the maps with satellite photos from a website like Google Maps.		7:10 p.m.
Skills Instruction 35 minutes ●	• Study the map symbols found on a sample topographic map. • Discuss how these symbols differ from those found on a road map. • Discuss what contour lines indicate and why they are important in orienteering.		7:25 p.m.
■	• Review the skills above. • Discuss what the colors used for map symbols mean and why knowing the colors can be useful. • Learn the difference between contour lines, index contour lines, and depression contour lines. • Review how contour lines depict cliffs, hilltops, and the direction of streams. (The V formed by contour lines point upstream.)		
◆	• Review the skills above. • Study the legend on a contour map. Discuss why the information there can be important in orienteering. • Learn how to order topographic maps for a given location.		
Breakout Groups 15 minutes	• Begin meal planning and create a duty roster for the main event. • Practice for the game.		8 p.m.
Game 10 minutes	Play Map Symbol Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ORIENTEERING

Meeting Plan: Map and Compass Together

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As participants arrive, challenge them to sketch topographic maps of their neighborhoods or the area around your meeting place.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	• Explain declination and how it affects orienteering. • Tell the declination for your area.		7:10 p.m.
Skills Instruction 35 minutes	• Learn how to orient a topographic map. • Learn how to adjust your compass for declination. • Determine the directions between various landmarks on a topographic map.		7:15 p.m.
	• Review the skills above. • Discuss different ways to adjust for declination, such as drawing magnetic north-south lines on the map or using a compass with declination adjustment built in. (See the *Boy Scout Handbook* chapter on navigation.)		
	• Review the skills above. • After determining directions between landmarks on a topographic map, determine the easiest ways to travel between those landmarks using techniques like aiming off, handrails, and catching features.		
Breakout Groups 15 minutes	• Finalize meal planning for the main event. • Review what advancement requirements members have completed related to orienteering.		7:50 p.m.
Game 20 minutes	Play Crash Landing (described earlier).		8:05 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ORIENTEERING

Meeting Plan: Orienteering Basics

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a display of items related to orienteering courses, including controls, punches, control cards, maps, bibs, etc.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 20 minutes	Have a guest speaker from an orienteering club discuss the sport, or show an Internet video (perhaps from Orienteering USA's YouTube channel) to give participants a sense of what the sport is like.		7:10 p.m.
Skills Instruction 30 minutes	Learn the basics of participating in an orienteering meet, including using an orienteering map, finding control points, and punching control cards or using e-punches.		7:30 p.m.
	• Review the skills above. • Learn about different formats for orienteering meets.		
	• Review the skills above. • Research orienteering meets in your area that are open to the public.		
Breakout Groups 15 minutes	• Review plans for the main event. • Review what advancement requirements members have completed related to orienteering.		8 p.m.
Game 10 minutes	Play Orienteering Scavenger Hunt (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

ORIENTEERING

Main Event: Orienteering Extravaganza

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Travel to a ROGAINE at a distant location. Camp overnight before and after the meet.

Equipment List	• Compasses • Maps • Whistles • Camping gear as needed • Meal plan • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Through a local orienteering club or the Orienteering USA website, find a ROGAINE your group can participate in that offers a three- or four-hour option. • Make arrangements to participate in the event. • If multiple courses are available, decide which one is appropriate for your group. • Preregister for the event as required. • Participate in several local cross-country meets to ensure that you're ready for the ROGAINE. • After the event, hold a debriefing session. Make plans to practice skills. • Use spare time at the location to work on other Scout skills or to complete Orienteering merit badge and other advancement-related requirements.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea.

Notes

REFERENCES

Books

Backpacking, Geocaching, Hiking, and *Orienteering* merit badge pamphlets

Boy Scout Handbook

Troop Program Resources

Bagness, Martin. *Outward Bound Orienteering Handbook*. Lyon's Press, 1995.

Boga, Steven. *Orienteering: The Sport of Navigating With Map and Compass*. Stackpole Books, 1997.

Bratt, Ian. *Orienteering: The Essential Guide to Equipment and Techniques*. Stackpole Books, 2002.

Kjellström, Björn. *Be Expert With Map and Compass: The Complete Orienteering Handbook*. Hungry Minds/John Wiley & Sons, 2009.

McNeill, Carol, Tom Renfrew, and Jean Cory-Wright. *Teaching Orienteering,* 2nd ed. Human Kinetics, 1998.

McNeill, Carol. *Orienteering (The Skills of the Game)*. Crowood Press, 1996.

Palmer, Peter, ed. *The Complete Orienteering Manual*. Crowood Press, 1998.

Renfrew, Tom. *Orienteering*. Human Kinetics, 1996.

Websites

Orienteering USA
Website: http://www.us.orienteering.org

Orienteering.net
Website: http://www.4orienteering.com

Related Program Features

Backpacking, Geocaching, and Hiking

Photo and Illustration Credits

Pages 27-1 (*map and compass,* Shutterstock.com/ ©ShaunWilkinson, courtesy), 27-2 (BSA file), 27-3 (BSA file), 27-4 (BSA file), and 27-5 (BSA file)

Acknowledgments

We are grateful to writer Mark Ray, Louisville, Kentucky, for helping to develop the Orienteering program feature.

ORIENTEERING

Main Event: Orienteering Meet

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Participate in a public orienteering meet in a local park. Rub shoulders with orienteering club members and learn more about the sport.

Equipment List	• Compasses • Appropriate clothing • Whistles • Lunch (decide on individual or group) • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Contact a local orienteering club and find out when it holds public meets. • Make arrangements to participate in one of those meets. • If multiple courses are available, decide which one is appropriate for your group. • Preregister for the meet as required. • After the event, hold a debriefing session. Make plans to work on needed skills. • Use spare time at the location to work on other Scout skills or to complete Orienteering merit badge requirements.
Safety	• Use the buddy system. • Have a first-aid kit. • Cell phones are a good idea.

Notes

ORIENTEERING

Main Event: Webelos Scout Orienteering Field Day

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Day or overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Plan an orienteering field day for Webelos Scouts from your district. Teach them basic orienteering skills in the morning, then let them compete in an orienteering meet in the afternoon.

Equipment List	• Compasses • Maps • Whistles • Controls, punches, and control cards (or the equivalent) • Camping gear as needed • Meal plan • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Find and reserve a location where you can set up a simple orienteering course for Webelos Scouts. • During the morning, half the group teaches basic orienteering skills to the Webelos Scouts while the other half sets up a cross-country orienteering course. • In the afternoon, the Webelos Scouts complete the course in buddy pairs. • Have one Scout go with each pair as an observer.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea.

Notes

SCUBA DIVING

An Adventure Underwater

Who hasn't dreamed of finding a sunken shipwreck full of gold or being a great underwater explorer like Jacques Cousteau or Robert Ballard? The good news is you don't have to be a professional to explore the world under water. Similar experiences and adventures are available to scuba divers worldwide.

Although you may not find any gold, your life will be changed once you venture below the surface. You will gain new confidence about your abilities and learn about this hidden world. Whether you dive in freshwater or the ocean, new sights and experiences await you there.

Don't think diving is limited to those who live near an ocean. Diving and dive careers are available virtually anywhere there is water. You might be surprised to learn how much diving takes place in rivers, lakes, and quarries in your own backyard. Whether you live near the coast or in the center of the country, you can always find new underwater worlds to explore.

Note: A complete scuba program will take more than four meetings. This module is designed to lead to a Discover Scuba experience offered by certified PADI (Professional Association of Diving Instructors) dive shops. The BSA requires the use of outside agencies like PADI (with whom the BSA has a memorandum of understanding to promote scuba diving) and others for training and certification.

Objectives

This month's activities should:

- Demonstrate that scuba diving can be fun and exciting.
- Teach Scouts about scuba equipment.
- Help Scouts understand the hazards and risks of scuba diving.
- Teach Scouts about compressed gas and how nitrogen builds up in the human body.
- Inspire Scouts to help protect the underwater environment.

RELATED ADVANCEMENT AND AWARDS

- Second Class requirement 3a
- First Class requirement 3
- Scuba BSA
- Snorkeling BSA
- Fish and Wildlife Management, Oceanography, Scuba Diving, Sustainability, Swimming, and Water Sports merit badges
- Quest: Requirement 5

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing scuba as your program feature during your planning meetings.

1. Are any of our youth scuba-certified?
2. Which scuba shop and instructor should we use?
3. Who will contact them?
4. What costs are involved?
5. Are we going to have a fundraiser to assist with costs?
6. Where are we going to do our dives?
7. What changes should we make to the sample meeting plans that would fit our needs better?

PARENTS CAN HELP WITH THE SCUBA DIVING PROGRAM FEATURE BY:

1. Sharing scuba experiences, if applicable and certified
2. Helping with financial needs
3. Giving references of scuba instructors
4. Providing transportation for the main event

SCUBA INFORMATION

The Boy Scouts of America scuba policy recognizes scuba industry standards and implements them by using outside agencies for training and certification. All scuba instruction must be conducted by recreational diving instructors in good standing with a scuba agency recognized by the BSA and approved by the BSA local council.

Scuba diving prerequisites, knowledge, and skills are neither itemized nor adequately covered in this publication. Earning the Open Water Diver Certification means the Scout must meet training requirements set by outside agencies and must supplement the material here with an entry-level scuba diver manual.

All phases of scuba instruction—classroom, pool, and open water training—must comply with the minimum training standards for entry-level scuba certification adopted by the American National Standards Institute (ANSI) or the U.S. Recreational Scuba Training Council (RSTC). The RSTC is recognized as the ANSI Accredited Standards Developer for recreational diving instructional standards. The BSA acknowledges those standards by limiting scuba instruction only to instructors trained and sanctioned by recognized scuba agencies.

Agencies recognized by the BSA for scuba training are PADI (Professional Association of Diving Instructors), NAUI (National Association of Underwater Instructors), SSI (Scuba Schools International), IDEA (International Diving Educators Association), PDIC (Professional Diving Instructors Corporation), and SDI (Scuba Diving International). In addition to the agencies listed by name, any current member of the World Recreational Scuba Training Council (WRSTC) also is recognized.

Each approved instructor must follow the training protocols established by his or her authorizing agency, including limitations and special provisions based on medical conditions and age. For Scout divers under age 15, this will include restrictions for maximum depth, buddies, and supervision ratios.

Scuba industry standards for open water diver certification require the student to be at least 15 years of age. Students under the minimum age who meet open water scuba performance requirements may qualify for a special certification that allows them to dive with an adult buddy who has, as a minimum, an Open Water Diver Certification. Several of the scuba

organizations recognized by the BSA offer "junior" open water certifications for those as young as 10; others have a minimum age of 12. Such junior open water diver certifications satisfy scuba diving certification for the Scuba Diving merit badge.

OPEN WATER AND CONFINED DIVING

Open water dive certification has three sections: 1) confined water/pool training; 2) knowledge development; and 3) open water dives. Confined water training establishes the basic skills that all divers need (or may need in the unlikely event of a problem) in a relatively low-stress environment. It also reinforces and supplements knowledge development training by having student divers practice and apply what they learn from reading the manual and watching training videos.

Students complete five confined water dives, which correspond to five knowledge development sections, and four open water dives, which link the information and skills learned in the confined water with knowledge development sections.

Hand signals may vary somewhat, so be sure to review the signals you will be using when planning a dive with a new buddy.

Getting Started

When contacting a dive center or resort, ask these questions to determine the type of program that will best suit your unit.

1. How is the knowledge development portion of the course completed?

   Options include:

   - Online training, where students complete this portion online at their own pace
   - Home study, where students complete this portion at home using DVDs and/or hard copies of the training materials
   - Classroom training, where students complete the training with an instructor at the dive center

2. What is the schedule for the course?

   Most dive centers offer a variety of course schedules, including evenings and weekends. If the dive center does not have a class schedule that meets the needs of your unit, ask if customizing the schedule is an option.

3. What information do I need to have available when I contact the dive center?

   When scheduling a group, the dive center will ask you a variety of questions, including the number of students and age of each participant. This information is important because dive training standards require specific instructor-to-student ratios.

4. How much will the course cost?

   Each dive center is independently owned and operated, so course pricing will vary depending on the store and the method of learning you choose. Many dive centers do offer special pricing for groups, so be sure to identify yourself as a Scout leader.

5. What type of gear will I need?

   To ensure the experience is enjoyable, most dive centers require each student diver to have personal snorkeling gear including mask, snorkel, and fins. Depending on the geographic location and water temperature, some stores may also require a hood, dive booties, and gloves. All of these items can be purchased onsite at the dive center. Most dive centers will have the remainder of the gear available for rental.

SCUBA DIVING GAMES AND ACTIVITIES

Scuba Gear Relay

Equipment: A complete set of scuba gear for each group. A set of cards listing each piece of equipment. Space to run a relay race.

Method: Place all the gear at one end of the room, and have the groups line up at the other end. Shuffle the gear cards. When told to go, one player from each team turns over the top card and then races across the room to get that piece of equipment. If he returns with the wrong piece, he has to go back and get the right piece. The next player then turns over the next card and repeats the process. The relay continues until all the equipment has been retrieved.

Scoring: The first group to finish the task wins.

Notes: To reinforce the correct use of equipment, have each group properly lay out the equipment as if it were on a diver. Another option would be to have one member put on all the equipment at the finish. (**Note:** This person should *not* race *with* the equipment.)

Pressure in a Bottle

Equipment: An unopened screw-top bottle (8 to 24 ounces) of soda for each Scout (Have Scouts choose a flavor they would like to drink afterward.)

Method: Go outside! Each youth vigorously shakes his or her bottle of soda for one minute. When instructed to do so, each person slowly opens the soda bottle in such a manner to avoid spraying liquid. Clean up as appropriate.

Scoring: The first to open his or her soda without spraying liquid wins.

Notes: This activity demonstrates how a gas is suspended in a liquid and how, in order to avoid sudden release of that gas, the pressure must be released slowly. Ask this question: How does this exercise relate to decompression sickness?

Fish ID Concentration

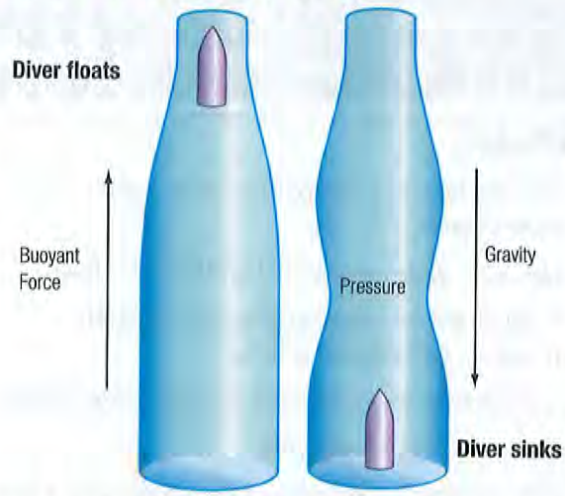
Equipment: Matching pairs of fish ID flashcards (Find on the Internet or make your own.)

Method: Mix up the cards and lay them out facedown in a traditional concentration memory grid. Teams take turns flipping over the cards trying to find matches. When a match is found, the team can earn extra points by identifying the fish on the card.

Scoring: Each match earns the team 1 point, but identifying the fish gives the team an additional 2 points.

Notes: Bonus points can be earned by showing the appropriate hand signal for the fish.

Make a Cartesian Diver



The Cartesian diver is named after Rene Descartes, a famous French scientist, mathematician, and philosopher. This is a fun activity that demonstrates how pressure changes buoyancy. Have a discussion as to what makes the "diver" go up and down.

Equipment: Each youth needs a writing pen lid (or medicine dropper), preferably transparent, as the diver; some clay or sticky tack; clean, clear plastic soft drink bottle filled to the top with water, and the cap

Step 1—Add some clay or sticky tack to the tip of the pen lid. Drop the pen lid, with the hole side down so that air is trapped inside, in a glass of water. If it floats with the tip of the lid just above the water, go to the next step. Otherwise, add or remove clay until the cap floats as needed.

Step 2—Fill the bottle to the very top with water. Float the pen lid in the bottle. Screw on the bottle cap tightly.

Step 3—Squeeze the sides of the bottle. The diver should sink to the bottom.

Step 4—Relax your grip on the bottle. Now what did the diver do?

The diver, like a boat, floats because of *buoyancy,* the force equal to the weight of the water displaced by the volume of the diver. When the pressure increases, and the trapped air bubble compresses, the air displaces less water. At this point, the pull of gravity exceeds the buoyant force, so the diver sinks.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Discuss how to sign up for an open water diver course.
- Describe scuba equipment and how it is used.
- Discuss decompression sickness, nitrogen narcosis, and oxygen toxicity.
- Explain how tissue absorbs nitrogen while diving.
- Discuss safety procedures.
- Discuss how to help protect the underwater world.

DEMONSTRATE

- Demonstrate the knowledge and skills found in your open water diver course.
- Show how to wear and use scuba equipment.
- Demonstrate how to plan a dive using dive tables.
- Demonstrate dive skills needed for Open Water Diver Certification.
- Show alternate air-assist procedures.
- Teach proper hand signals.

GUIDE

- Have Scouts complete the open water training dives of your open water diver course.
- Guide Scouts in putting on equipment.
- Guide Scouts in using dive tables to plan a dive.
- Have Scouts work through mask clearing, ear equalization, and regulator recovery.
- Guide Scouts in alternate air-assist skills.
- Have Scouts practice underwater communication.

ENABLE

- Have dive buddies perform safety checks on each other's gear.
- Enable Scouts to use dive tables to plan a dive.
- Have Scouts earn the Open Water Diver Certification.
- Help Scouts plan future training and expeditions so they can enjoy a lifetime of scuba diving.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Weekend Activity	Multiday Activity	Weekend Activity
Discover Scuba experience—Under the direction of a certified scuba instructor or appropriately certified Divemaster, participate in a Discover Scuba experience. This is not an actual scuba certification. During the Discover Scuba experience, you will learn how to use scuba equipment in shallow water and get a quick and easy introduction to what it takes to explore the underwater world. During this program, you can earn the Scuba BSA Award.	Open Water Diver certification—Under the direction of a certified scuba instructor, complete all the requirements for Open Water Diver certification. This activity requires five pool dives followed by four open water dives (all conducted over at least two days). Earning your diving certification meets one of the requirements for the Scuba Diving merit badge.	Underwater navigation (orienteering course): In cases where all participants have earned their open water certification, the group sets up an underwater orienteering course under the direction of a certified Divemaster or scuba instructor.

SCUBA DIVING

Meeting Plan: Introduction to Scuba Diving

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show introductory diving videos from YouTube, such as "PADI Go Dive" from the PADI channel: https://www.youtube.com/user/PADIProducer/videos.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Have a certified scuba professional show an introductory scuba video. Review medical requirements for scuba diving. (Those who cannot meet the physical requirements to dive can still participate in weekly meetings. While they will not be able to get into the water, they can still learn about scuba from the classroom sessions.)		7:10 p.m.
Skills Instruction 45 minutes	Discuss and demonstrate masks, snorkels, fins, exposure suits, scuba cylinders, regulators, buoyancy control devices, and weight systems		7:15 p.m.
	Review the above information and practice equipment care and maintenance.		
	Review the above information and discuss scooters, rebreathers, technical diving, dry suits, and night diving.		
Breakout Groups 15 minutes	Work on advancement requirements as needed. Begin planning participation in the main event.		8 p.m.
Game 10 minutes	Play Scuba Gear Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SCUBA DIVING

Meeting Plan: Pressure—The Force of Water

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a show-and-tell of dive equipment. As Scouts arrive, test their knowledge of equipment based on what they learned last week.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 25 minutes	Do the following: • Teach about nitrogen and how it builds up while diving. • Discuss the dangers of decompression sickness, nitrogen narcosis, and oxygen toxicity. • Demonstrate dive tables. • Discuss what dive computers do and how they work.		7:10 p.m.
Skills Instruction 25 minutes ●	Have Scouts use a dive table to plan a dive.		7:35 p.m.
■	Have Scouts use dive tables to plan two or more consecutive dives.		
◆	Teach Scouts to use an electronic recreational dive planner (such as the PADI Dive Computer) for multilevel dive planning.		
Breakout Groups 15 minutes	Continue advancement work. Plan the group duty roster for upcoming main event.		8 p.m.
Game 10 minutes	Do the Pressure in the Bottle activity (described earlier). **Note:** Be sure to relate this activity to an understanding of decompression sickness.		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SCUBA DIVING

Meeting Plan: Buoyancy

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show YouTube videos of especially scenic or challenging dives. A good example is the "tuna tornado" video at https://www.youtube.com/watch?v=D6HdolsLMFg		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Explain the following scuba skills: mask clearing, regulator recovery, and weight belt donning and removal.		7:10 p.m.
Skills Instruction 20 minutes	On dry land, practice the following skills: ear equalization, clearing mask, and regulator recovery.		7:20 p.m.
	Review the above skills, and teach alternate air source assist.		
	Review the above skills, practice compass skills, and use steps to represent kick cycles.		
Breakout Groups 15 minutes	Continue advancement work. Plan the menu for upcoming main event.		7:40 p.m.
Game 30 minutes	Make Cartesian divers (described earlier).		7:55 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SCUBA DIVING

Meeting Plan: Exploring the Underwater World

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a slideshow of underwater photos and/or create a display of diving maps, brochures, books, etc.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Do the following: • Teach common hand signals in scuba. • Discuss what fish are in the area where you will be diving. • Discuss Project AWARE (www.projectaware.org).		7:10 p.m.
Skills Instruction 40 minutes	Practice basic hand signals, and learn fish identification.		7:20 p.m.
	Review the above skills. Discuss other ways to communicate under water, and practice communicating using a slate.		
	Review the above skills, and discuss underwater photography, including how to approach fish.		
Breakout Groups 15 minutes	Continue advancement work. Finalize plans for participation in the main event.		8 p.m.
Game 10 minutes	Play Fish ID Concentration (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SCUBA DIVING

Main Event: Discover Scuba Experience

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Discover Scuba experience—Under the direction of a certified scuba instructor or Divemaster, participate in a Discover Scuba experience. This is not an actual scuba certification. During the Discover Scuba experience, you will learn how to use scuba equipment in shallow water and get a quick and easy introduction to what it takes to explore the underwater world. During this program, it's possible for you to earn the Scuba BSA Award.

Equipment List	• Scuba equipment (provided by most Discover Scuba providers) • Masks • Appropriate swim attire • Towels • Camping gear and food, as appropriate • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Contact a scuba instructor or shop to schedule this experience. • Transport to the location. • Following BSA Youth Protection guidelines, change into swimming attire. • Watch introductory video or lecture. • Complete Discover Scuba activity. • Return home.
Safety	A certified instructor or Divemaster is required. However, ***DO NOT*** attempt this activity without properly trained supervision. • Always use the buddy system. • Have a cell phone and numbers available in case of emergencies.

Notes

SCUBA DIVING

Main Event: Open Water Diver Certification

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Multiple days

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Under the direction of a certified scuba instructor, complete all the requirements for Open Water Diver certification. This activity requires five pool dives followed by four open water dives (conducted over at least two days). Earning your diving certification meets one of the requirements for the Scuba Diving merit badge.

Equipment List	• Full scuba equipment • Appropriate swim attire and cold-water protection (i.e., wetsuits) • Towels • Camping gear and food, as appropriate • Water • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Under the direction of a certified instructor, participate in the required checkout dives. • If overnight stay is required, have appropriate menus and duty roster. • Provide appropriate thank you notes for dive instructor (especially important if the instructor provided a discount for Scouts).
Safety	A certified instructor is required. However, ***DO NOT*** attempt this activity without properly trained supervision. • Always use the buddy system. • Have a cell phone and numbers available in case of emergencies.

Notes

SCUBA DIVING

Main Event: Underwater Navigation (Orienteering Course)

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Underwater navigation (orienteering course)—In cases where all participants have earned their open water certification, the group sets up an underwater orienteering course under the direction of a certified Divemaster or scuba instructor.

Equipment List

- Open Water Diver certification card
- Full scuba equipment
- Enough tanks for multiple dives
- Access to air refills
- Appropriate swim attire and cold-water protection (i.e., wetsuits)
- Towels
- Camping gear and food, as appropriate
- Water
- Scout Basic Essentials (Review the list and take what you need.)

Activity

- Before considering this activity, make sure all participants are open water certified.
- Do appropriate dive planning in a location that meets the skills of the group.
- Make practice dives on the site to become familiar with the area before planning the orienteering course.
- From a fixed location underwater, have each set of dive buddies plan a simple set of compass directions in order to find an object.
- On the next dive, have them exchange directions with other divers and find their object.
- If overnight stay is required, have appropriate menus and duty roster.

Safety

In order to participate in this main event, every participant needs to have open water certification. Also, the *Guide to Safe Scouting* states that recreational diving activities by BSA groups must be supervised by a responsible adult currently certified as a Divemaster or assistant instructor or have a higher rating from a recognized agency.

- Always use the buddy system.
- Have a cell phone and numbers available in case of emergencies.

Notes

REFERENCES

Books

Fish and Wildlife Management, Oceanography, Scuba Diving, Sustainability, Swimming, and *Water Sports* merit badge pamphlets

Brylske, Alex. *The Complete Diver: The History, Science, and Practice of Scuba Diving*. Dive Training LLC, 2012.

PADI. *Encyclopedia of Recreational Diving*, 3rd ed. PADI, 2005.

———. *Open Water Diver Manual*. PADI, 2010.

Shreeves, Karl. *Life on an Ocean Planet.* Current Publishing, 2010.

Periodicals

Dive Training
Website: www.dtmag.com

Scuba Diving
Website: www.scubadiving.com

Sport Diver Magazine
Website: www.sportdiver.com

Organizations and Websites

Historical Diving Society
Website: http://www.hds.org

International Diving Educators Association (IDEA)
Website: www.ideascubausa.com

National Association of Underwater Instructors (NAUI)
Website: www.naui.org

Professional Association of Diving Instructors (PADI)
Website: www.padi.com

Professional Diving Instructors Corporation (PDIC)
Website: www.pdic-intl.com

Scuba Diving International (SDI)
Website: www.tdisdi.com

Scuba Schools International (SSI)
Website: www.divessi.com

(World) Recreational Scuba Training Council (RSTC)
Website: www.wrstc.com

Project Aware
http://www.projectaware.org

PADI Information for Scoutmasters
http://www.padi.com/scuba/special-offers/special-offers-americas/Boy-Scouts-of-America-Scoutmasters/

Related Program Features

Camping, Orienteering, and Swimming

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Get Your Kicks Playing the World's Most Popular Sport

Many sports, including baseball, basketball, and American-style football, are younger than the United States. Not soccer. This sport began more than 3,000 years ago. There are ancient written accounts and graphic illustrations of Chinese soldiers kicking a ball made of leather and stuffed with animal hair. The ancient Greeks and Romans played the game, too, and as the Roman Empire grew, so did the game.

Today, soccer—which is known as football in most places—is without a doubt the most popular sport in the world. When the World Cup finals are held every four years, more than 700 million people tune in to watch. That's 1 out of every 10 people on the planet!

Part of soccer's appeal is that it is a simple game. The object is to kick the ball into the opposing team's goal. To play, all you need is a ball, two goals, and two teams of players. Because of its simplicity, children everywhere play this sport whenever they can find a ball and a flat space to run around.

This month's program will help you learn more about soccer. While you may never make it to the World Cup, you will learn plenty about teamwork and fitness and have a great time along the way.

Objectives

This month's activities should:

- Give Scouts an understanding of the game of soccer.
- Teach Scouts the rules of soccer.
- Help Scouts identify key skills.
- Develop teamwork and team play.
- Inspire Scouts to pursue the Sports and Athletics merit badges.
- Encourage Scouts to share their knowledge with others.

RELATED ADVANCEMENT AND AWARDS

- Sports and Athletics merit badges
- Varsity Scout letter
- Varsity Scout Soccer activity pin
- Quest: Requirement 5

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing soccer as your program feature during your planning meetings.

1. What is our unit's current skill level?
2. Who do we know who is a soccer expert? (Ideally a U.S. Soccer Federation–licensed coach with an E-level license or higher)
3. What equipment will we need?
4. What will we do for the main event?
5. Where will we do the main event?
6. Do we need permission to use that location?
7. What additional subtopics would fit well with this feature?
8. How can we involve parents?
9. To meet our needs, what should we change in the sample meeting plans?

PARENTS CAN HELP WITH THE SOCCER PROGRAM FEATURE BY:

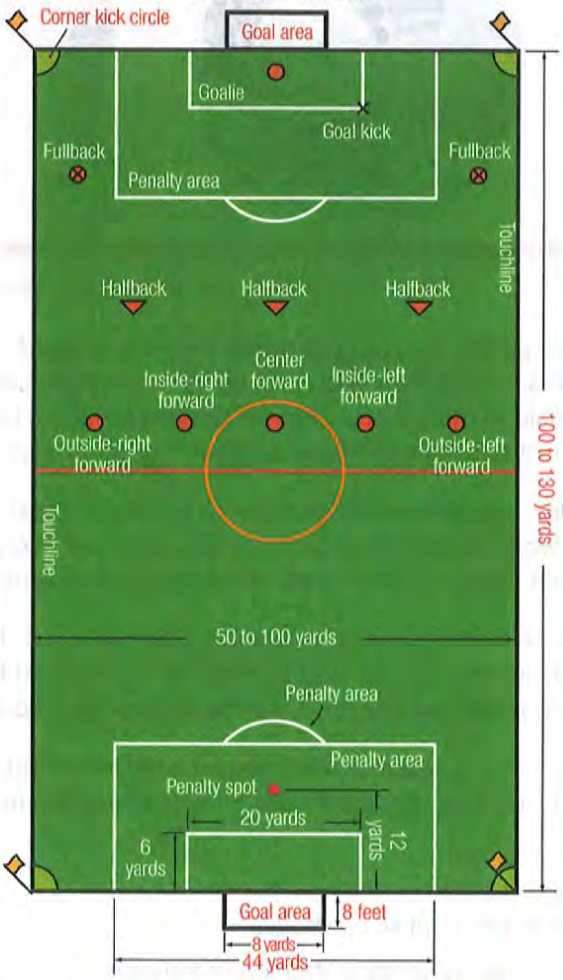
1. Loaning equipment
2. Providing transportation and leadership during meetings and for the main event
3. Serving as or recruiting a soccer expert
4. Providing water and refreshments
5. Cheering on the players

RULES OF SOCCER

The field—Soccer can be adapted to almost any area available. At minimum you will need a rectangular playing area with a center line and a goal on each end. The size and proportions can be adjusted for the area available and the number of players participating.

See the diagram for the official field of play.

Soccer Field



The ball—Officially the ball should be 27 to 28 inches in circumference and 14 to 16 ounces in weight, but any round ball can be used.

Number of players—11 per side, but may be fewer. One person on each side must be the goalkeeper.

Play equipment—Consists of shirt, shorts, socks, and shoes. Goalkeeper must wear colors distinguishing him or her from the other players. Shin guards are also very popular and highly recommended.

Referees—One referee is in control of each game. The referee's decisions are final.

Linesmen—Two linesmen assist the referee. They indicate offside, ball out of play, and which team is entitled to the corner kick or throw-in.

Duration of the game—A regulation game consists of two equal periods of 45 minutes. The league determines the length of play.

The start of play—A flip of a coin determines which team will kick off. Each team must stay on its own half of the field, and the defending players must be at least 10 yards from the ball until it is kicked. After a goal, the team scored on will kick off. At halftime, the teams change ends of the field, and the team that did not kick off at the beginning of the game kicks off to open the second half. A goal cannot be scored directly from a kickoff.

Ball in and out of play—The ball is out of play when it has entirely crossed the goal line or sideline, whether on the ground or in the air, or when the game has been stopped by the referee.

Method of scoring—A goal is scored when the entire ball has passed over the goal line between the goal posts and under the crossbar.

Offside—A player is in an offside position if he or she is nearer to the opponent's goal line than the ball *unless* (a) the player is in his or her own half of the field of play or (b) there are at least two opponents, including the goalkeeper, closer to their own goal line than the player.

If a player is declared offside, the referee awards an indirect free kick, which is taken by a player of the opposing team at the place where the offense occurred, unless the offense is committed by a player in the opponent's goal area. If committed in the goal area, the free kick is taken from a point anywhere within that goal area.

Fouls and misconduct—A player who intentionally attempts to or actually kicks, trips, jumps, charges violently, charges from behind, strikes, holds, or pushes an opponent, or intentionally handles the ball is penalized by a direct free kick. Any of these offenses committed in the penalty area by a defender will result in a penalty kick awarded to the offensive team.

A player committing less flagrant violations such as offside, dangerous play, obstruction, or unsportsmanlike conduct is penalized by an indirect free kick.

Free kicks—Free kicks are classified into two categories:

- Direct, from which a goal can be scored directly against the offending side.
- Indirect, from which a goal cannot be scored unless the ball has been touched by a player other than the kicker before entering the goal.

For all free kicks, the offending team must be at least 10 yards from the ball until it is kicked.

Penalty kick—A direct free kick taken at the penalty mark. All players except the goalkeeper and the player taking the kick must stay outside the penalty area or at least 10 yards from the ball (hence the arc at the edge of the penalty area).

Throw-in—When the ball has entirely crossed the sideline, it is put back into play by a throw-in from the spot where it went out and by a player from the opposite team that last touched it. A goal cannot be scored directly from a throw-in.

Goal kick—When the ball has entirely crossed the goal line after being last touched by a player from the attacking team, it is put back into play by a kick from the goal area by the defending team.

Corner kick—When the ball has entirely crossed the goal line after being last touched by a player from the defending team, it is put back into play with a kick by the attacking team from the corner on the side the ball went out.

THE NAME OF SOCCER

In the 19th century, people in Britain played several different football games. To differentiate between rugby and what we now call soccer, they came up with the term *association football.* British people sometimes make nicknames by adding "–er" to words, so *rugby* became *rugger* and *association football* became *assoccer*—and that eventually became just *soccer.*

Player Positions

There are seven named positions in soccer. Their names and duties are:

- **Forward**—An attacking player responsible for setting up and scoring goals. The forwards are the key offensive players.
- **Striker**—A central forward who scores often.
- **Winger**—The right and left outside forwards.
- **Midfielder**—Both an offensive and defensive player responsible for "linking" the forwards and defenders.
- **Defender**—Defensive player whose duty is to help the goalkeeper protect the goal. This player usually, but not always, stays at the rear of the attacking (offensive) team.
- **Sweeper**—A defender who covers behind the fullback line. This player's duty is to pick off stray passes.
- **Goalkeeper**—The last defender of the goal. The goalkeeper is the only player who can use the hands. Use of hands is limited to the penalty area.

SOCCER TECHNIQUES

Juggling is using the head, thighs, chest, and feet to control the ball without letting it touch the ground. It's the first skill to learn in soccer because it develops balance, coordination, and confidence.

Dribbling is the skill of controlling the ball with your feet while moving around an opponent in any direction you want to go. Good dribbling requires speed, the ability to change directions quickly, and the use of feints to move the ball down the field while you look for openings for a pass or dodge past opponents.

Trapping is the skill of getting the ball to your feet as quickly as possible so that you are ready to dribble it forward, make a pass, or take a shot at the goal. However you receive the ball from a teammate, you must be able to control it as quickly as possible without using your hands and arms.

Passing is the skill of kicking or heading the ball to a teammate and is essential to successful team play. Soccer passes are made with the inside or outside of the foot, the instep, or the forehead (called "heading").

Shooting the soccer ball utilizes the techniques of kicking, passing, and heading to score by shooting at the goal. When you shoot, aim away from the goalkeeper and into the corner of the goal with a lot of power behind the shot so that the goalkeeper can't get to the ball and block your score.

Heading means controlling the ball with the center of the forehead and is an important skill for all players to learn. Heading doesn't hurt if it is done right. You might want to learn heading using a volleyball or other softer ball at first. Power and distance are achieved by getting the weight of your body behind the ball and by good timing.

Tackling means using your feet to charge your opponent and take the ball from him or her. Tackling is similar to a slide in baseball. This is an essential defensive skill in soccer. The most important thing to remember about tackling is that you must attack the ball—not the player.

The ***throw-in*** is awarded a team when the opposing team last touches the ball before the entire ball passes beyond the sideline. The throw-in is very important in soccer. It is the only time you may use your hands (unless you are the goalkeeper). Although you cannot score by throwing the ball into the goal, you can use a good throw-in to set up a scoring play. You may take a one- or two-step run-up before you throw the ball, but most of the power comes from strong arm and wrist action with a firm swing of the body from your waist.

Goalkeeping is the goalkeeper's duty—to keep the other team from scoring by preventing the ball from entering the goal. As the only player allowed to use the hands, the goalkeeper may catch the ball, block it away, or deflect the ball off course. Goalkeeping is the most specialized position on a soccer team because it requires a set of skills unlike those used by the other players. All players should learn the skills of goalkeeping and play this position as well as all others. Young players should not specialize in any one position.

SOCCER GAMES

Dribble the Ball Relay

Equipment: One soccer ball per team

Method: Divide into teams. Have a race dribbling the ball around a course and then passing it off to the next player.

Scoring: The first team to get all players through the course wins.

Note: This game is best played outside but could be done indoors (in a gym, for example).

Team Captain

Equipment: One soccer ball and one hat per team, a playing area of 20 yards by 30 yards per team

Method: Divide into teams of four players, then pair two teams to play the game. Each team selects a captain, who wears a special hat. One team passes the ball around the playing area, trying to keep it away from the other team. The ball is given to the opposing team when it is intercepted or goes out of play, or when a point is scored.

Scoring: A team scores 1 point when its captain receives the ball. The team with the most points at the end of the game wins.

Note: Switch captains after three or so minutes and continue the game.

Throw-In for Accuracy

Equipment: One soccer ball per team, stopwatch or timer

Method: Divide into two teams. Establish a sideline where one team member will throw in the ball using a two-handed overhead throw. Another player stands in the field to "head butt" the thrown ball.

Scoring: Each team scores 1 point for every ball that is head-butted.

Note: If teams have varying skill levels, you can position the head-butting players closer to or farther from the sideline.

Defending the Goal

Equipment: Soccer ball and soccer goal

Method: Divide into two teams. One player from team 1 is designated as the goalkeeper. Players from team 2 take turns trying to score on the goalkeeper. After all players on team 2 have taken a turn, switch sides so that the members of team 1 try to score on a goalkeeper from team 2.

Scoring: Each team scores 1 point for each goal it makes.

Note: If you have a large group, divide into four teams and assign two teams to each of two goals. Have the winning teams come together for a playoff round.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain the rules of the game.
- Discuss soccer safety and hazards.
- Describe the principles of teamwork and team behavior.
- Review the requirements for the Sports and Athletics merit badges with the Scouts.
- Explain the components of a personal training program that is suited to soccer.

DEMONSTRATE

- Demonstrate basic skills of the game.
- Show how to properly dress for the game.
- Show instructional videos about soccer skills.
- Demonstrate how to warm up and stretch before playing.
- Invite high school or college soccer players to put on an exhibition game, and have a coach provide play-by-play commentary.

GUIDE

- Guide Scouts as they practice basic skills.
- Shoot videos of Scouts going through skills drills, then play them back and point out good and bad technique.
- Supervise Scouts as they set up a temporary soccer field.
- Have Scouts warm up and stretch under supervision.
- Schedule time for Scouts to meet with a Sports or Athletics merit badge counselor.

ENABLE

- Have older Scouts set up teams for a unit tournament.
- As a group, plan a soccer festival.
- Reward Scouts who show good sportsmanship.
- Hold a soccer clinic where Scouts can teach basic skills to Cub Scouts or other young children.
- Have Scouts serve as officials at unit-level soccer games.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Day Activity	Day Activity or Overnight
A few good games—Play small-sided games using skills and knowledge learned in this module.	Join a tournament—Participate in a soccer tournament organized by your local community, a youth group, a church, or the BSA local council. Follow all the rules for team play. Demonstrate the skills and plays learned in this module.	Put on a soccer festival—Plan and coordinate a soccer festival for your community. Provide skills workshops and small competitions. Provide play for small teams as well as pickup games.

SOCCER

Meeting Plan: This Is Soccer

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Teach early arriving Scouts proper techniques for warming up and stretching before physical activity.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	• Provide an overview of the game of soccer. • Introduce soccer equipment and terminology.		7:10 p.m.
Skills Instruction 45 minutes	• Review team behavior. • Introduce the rules of the game. • Learn basic skills of the game (dribbling and movement with the ball).		7:15 p.m.
	• Review the above information. • Learn basic skills of the game (passing and receiving). • Learn about basic equipment for the game (cleats, shin guards, balls).		
	• Review the above information. • Learn about the requirements for a soccer field. • Learn basic skills of the game (throw-ins).		
Breakout Groups 15 minutes	• Work on basic skills associated with the group's skill level. • Work on advancement requirements as needed. This is a good time to have counselors for the Sports and Athletics merit badges available.		8 p.m.
Game 10 minutes	Play Dribble the Ball Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SOCCER

Meeting Plan: Rules of the Game

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have merit badge counselors on hand to introduce Scouts to the Sports and Athletics merit badges.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	• Review key points from week 1. • Discuss how teamwork is shown while playing soccer. • Explain the basic rules of soccer.		7:10 p.m.
Skills Instruction 45 minutes	Continue to develop individual and team soccer skills from week 1, including passing and receiving.		7:15 p.m.
	Continue to develop individual and team soccer skills from week 1, including passing, receiving, and throw-ins.		
	Review the above information. Learn proper technique for receiving a ball in flight (trapping with chest, thigh, and foot).		
Breakout Groups 15 minutes	• Work on basic skills associated with the group's skill level. • Work on advancement requirements as needed. This is a good time to have counselors for the Sports and Athletics merit badges available.		8 p.m.
Game 10 minutes	Play Throw-in for Accuracy (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SOCCER

Meeting Plan: It's a Goalkeeper's Life

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have a Sports or Athletics merit badge counselor on hand to help Scouts set up a personal training program suited to soccer (or another sport they are interested in); see requirement 5 of the Sports merit badge or requirement 3 of the Athletics merit badge for details.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	Discuss the role of the goalkeeper and the rules that apply to this position. Also discuss goalkeeper techniques; if possible, show part of an instructional video about the position.		7:10 p.m.
Skills Instruction 35 minutes	Practice basic goalkeeper techniques, focusing on use of the hands.		7:25 p.m.
	• Review the above information. • Learn how to kick the ball in.		
	• Review the above information. • Learn how to dive safely and make saves.		
Breakout Groups 15 minutes	• Work on basic skills associated with the group's skill level. • Begin planning for participation in the main event.		8 p.m.
Game 10 minutes	Play Defending the Goal (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SOCCER

Meeting Plan: Working as a Team

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show an Internet video of a World Cup game.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	• Review key points from previous weeks. • Discuss good sportsmanship and have Scouts give examples from sports they play or watch. • Describe the proper venue for a full-sided soccer match.		7:10 p.m.
Skills Instruction 40 minutes	Review and practice the basic skills covered in weeks 1 and 2.		7:20 p.m.
	Review and practice the basic skills covered in weeks 1 and 2.		
	• Review and practice the basic skills covered in weeks 1 and 2. • Learn about goal kicks and corner kicks.		
Breakout Groups 15 minutes	• Work on basic skills associated with the group's skill level. • Finalize plans for participation in the main event.		8 p.m.
Game 10 minutes	Play Team Captain (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SOCCER

Main Event: A Few Good Games

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 2 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Play small-sided games using skills and knowledge learned in this module.

Equipment List	• Soccer balls • Shin guards for all players • Cones or some other markers to identify field borders and goals • Water for each player • Sunscreen • First-aid kit
Activity	Have Scouts play small-sided games, with the field size based on the number of players, as follows: 3 vs. 3: 20 yards by 20 yards 4 vs. 4: 30 yards by 30 yards 5 vs. 5: 40 yards by 40 yards 6 vs. 6: 50 yards by 50 yards Divide Scouts into teams that include both more experienced and less experienced players. This is an activity that you can have parents help with, especially with younger Scouts. Planning steps: • Identify the appropriate field location. • Get permission to use the location as required. • Travel to location with equipment. • Create teams with varied ability levels. • Play small-sided game(s) with 10-minute halves.
Safety	• Wear proper soccer safety equipment (shin guards). • Have a first-aid kit handy. • Don't forget to hydrate and wear sunscreen.

Notes

SOCCER

Main Event: Join a Tournament

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 6 to 8 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Participate in a soccer tournament organized by your local community, a youth group, a church, or the BSA local council. Follow all the rules for team play. Demonstrate the skills and plays learned in this module.

Equipment List	• Uniform for each player (usually a matching colored shirt) • Soccer balls • Shin guards for all players • Water for each player • Food • Sunscreen • First-aid kit
Activity	• Find a soccer tournament in your community that you can participate in. • If one is not available, consider recruiting other units in your area to participate in your own tournament. • Under the direction of appropriate referees, play several games. • Have fun.
Safety	• Wear proper soccer safety equipment (shin guards). • Have a first-aid kit. • Don't forget to hydrate and wear sunscreen.

Notes

SOCCER

Main Event: Put on a Soccer Festival

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 6 to 8 hours (could be combined with an overnight if desired)

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Plan and coordinate a soccer festival for your community. Provide skills workshops and small competitions. Provide play for small teams as well as pickup games.

Equipment List

- Soccer balls
- Shin guards for all players
- Cones or some other markers to identify field borders and goals
- Water for each player
- Food
- Sunscreen
- First-aid kit

Activity

- Set up a series of skill workshops addressing dribbling and passing.
- Have Scouts set up and lead small-sided games, with the field size based on the number of players, as follows:

  3 vs. 3: 20 yards by 20 yards
  4 vs. 4: 30 yards by 30 yards
  5 vs. 5: 40 yards by 40 yards
  6 vs. 6: 50 yards by 50 yards

Planning steps:

- Identify the appropriate field location.
- Identify the groups that should participate.
- Advertise the festival.
- Assign Scouts to serve as coaches, officials, registration volunteers, etc.
- Create a schedule for the day and make copies for participants.
- Travel to location with equipment and set up ahead of time.
- Conduct the festival.

Safety

- Wear proper soccer safety equipment (shin guards).
- Have a first-aid kit.
- Don't forget to hydrate and wear sunscreen.

Notes

Be sure to have water available for participants. Food is also important if the festival will run longer than a couple of hours. Consider setting up a simple concession stand as a fundraiser.

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Basic Soccer Rules from Kids-Play-Soccer.com
Website: http://www.kids-play-soccer.com/basic-soccer-rules.html

Related Program Features

Fitness and Nutrition, and Spectator Sports

Photo and Illustration Credits

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Acknowledgments

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Walk in the Shoes of Those With Disabilities

You probably know somebody with special needs. But do you know what it's like to walk in that person's shoes and look at the world through that person's eyes? Or maybe you have special needs yourself—a learning disability, perhaps, or a mobility challenge. Do your fellow Scouts understand the accommodations that help make life easier for you? Do you understand how different disabilities affect other people?

This month's meetings and main event will introduce your unit to disabilities of all sorts. Through videos, guest speakers, and simulations, you will learn more about the disabilities that affect at least 12 percent of the U.S. population. You will also learn what you can do to make it a little easier for these people to navigate our world.

Objectives

This month's activities should:

- Help Scouts understand more about disabilities.
- Coach Scouts on how to interact respectfully with people who have disabilities.
- Demonstrate the importance of person-first language.
- Explain how persons who have disabilities compensate through enabling abilities.
- Introduce Scouts to adaptive sports.
- Introduce Scouts to agencies and professions that serve people with specific disabilities.
- Help Scouts understand accessibility and how it can be achieved.

RELATED ADVANCEMENT AND AWARDS

- Disabilities Awareness and Signs, Signals, and Codes merit badges
- Torch of Gold Award

ADAPTIVE SPORTS

Just because a person has a disability doesn't mean he or she can't compete in various sports. Just about every sport you can think of has been adapted for people with disabilities.

People with disabilities are as likely to play sports for fun as anyone else. They may be fierce competitors, too. Special Olympics serves children and adults with intellectual disabilities, the Paralympic Games involve athletes with a range of physical and intellectual disabilities, and the Warrior Games feature competition among wounded, ill, and injured members of the armed forces. There is even a Deaflympic for people with hearing loss.

ACCESSIBILITY

Curbs or steps without ramps, narrow doorways and aisles, revolving doors and turnstiles, high counters, tight parking spaces with no room to maneuver a wheelchair—any of these can make it impossible for people with disabilities to take part in everyday activities such as shopping in a store, watching a movie in a theater, eating at a restaurant, or even going to school or work. Next time you are in a public place, look at how accessible (usable) the location is for people with disabilities. Are there:

- Ramps and curbs made for wheelchair users?
- Steps that are low and wide enough to be easily climbed by people using crutches or canes?
- Wide doorways and aisles?
- Elevators?
- Signs and directions printed in Braille?
- Visual warning alarm systems and lighted call numbers for lines for people who are deaf?
- Accessible parking spaces wide enough for wheelchairs?
- Accessible restrooms, public telephones, and drinking fountains?
- Tables high enough for a wheelchair user to sit at without banging his or her knees?

Many accommodations help everyone, not just people with disabilities. For example, ramps are helpful for people pushing strollers or pulling wheeled luggage.

SPECIAL NEEDS AWARENESS GAMES

One-Armed Volleyball

Equipment: A volleyball net and volleyball

Method: Form two teams of players. Have each player immobilize his dominant arm by either holding the back of his belt or placing his arm inside his T-shirt. Play a regulation volleyball game.

Scoring: The first team with 15 points (or the team with the highest score when time is called) wins.

Note: Having limited use of limbs and being off balance will be a new challenge for the participants.

Have a discussion afterward about the experience.

Say What?

Equipment: American Sign Language dictionaries or computers/tablets/smartphones with Internet access

Method: Form two teams. Give each team a few minutes to learn five simple ASL phrases (like "What is your name?" or "How old are you?"). Teams take turns making those signs for the other team, which tries to guess their meaning.

Scoring: Teams score one point each time they correctly guess a sign. The team with the most points wins.

Variation: If you have access to someone proficient in ASL, have that person make the signs for both teams. The first team to correctly guess a sign earns a point. Be sure to have the signer sign more slowly than usual.

Cane Maze

Equipment: Tapping cane or equivalent (such as a fiberglass wand), maze constructed of PVC tubing (or something similar), blindfolds

Method: Blindfold participants. Have them walk one at a time through the maze using the cane to stay on the path. If desired, have other Scouts stand in the maze as obstacles.

Scoring: The Scout with the fastest time wins. Add penalties for running into obstacles.

Variation: Instead of setting up a maze, you could designate a course through your meeting place, such as from your meeting room to the restroom or front door.

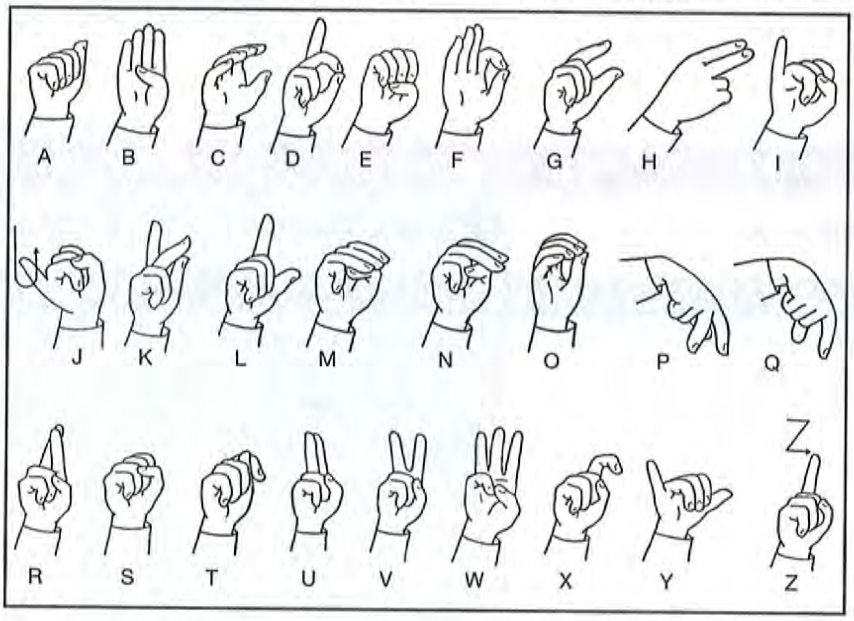
Disabled Tent Pitching

Equipment: Tents and stakes, crutches, wheelchairs, arm slings, blindfolds, heavy gloves, and other materials that let Scouts simulate disabilities

Method: Form teams and assign team members a variety of disabilities. On a signal, each team tries to set up its tent. All members must be involved in some way.

Scoring: The team that sets up its tent correctly and most quickly wins.

Note: Thicker gloves help Scouts understand what it's like to have dexterity impairments.



E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain what disabilities are.
- Introduce adaptive sports.
- Discuss accessibility and accommodations.
- Explain person-first language.
- Have a speaker from an agency that supports people with disabilities.
- Discuss opportunities to assist those with disabilities by asking if they need assistance first.

DEMONSTRATE

- Demonstrate the use of crutches and wheelchairs.
- Take an accessibility tour of your meeting place.
- Show how beep baseball works.
- Set up a display of adaptive sports equipment.
- Show Internet videos of adaptive sports competitions.
- Demonstrate how closed captioning works on a TV or digital device.

GUIDE

- Have Scouts practice using assistive devices.
- Design a disabilities-awareness challenge activity.
- Guide Scouts as they work with a Special Olympics team or other adaptive sports program.
- Facilitate discussions with athletes and coaches who are involved in adaptive sports.
- Tour museums and public places to see what is captioned.

ENABLE

- Have Scouts complete an accessibility survey of your meeting place.
- Create a disabilities awareness challenge for a Cub Scout pack or other group.
- Connect Scouts with agencies that serve people with disabilities where they could volunteer.
- Help Scouts select a disability issue to advocate (by writing letters, creating petitions, etc.).

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Day Activity	Overnight Activity
Special Olympics—Volunteer to assist at a Special Olympics tournament.	Disabilities awareness workshop—Conduct a workshop to teach disabilities awareness to another Scout unit or youth group.	Disabilities awareness camporee—Lead a disabilities awareness camporee for your district.

SPECIAL NEEDS AWARENESS

Meeting Plan: Getting Started

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have Scouts play a pickup game of volleyball as they arrive.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	A guest speaker, ideally someone well versed in disabilities issues, leads a discussion about disabilities.		7:10 p.m.
Skills Instruction 35 minutes	• Brainstorm a list of common disabilities. • Discuss what limitations each poses.		7:25 p.m.
	• Brainstorm a list of common disabilities. • Discuss how persons with these disabilities could participate in sports and Scouting.		
	• Brainstorm a list of common disabilities. • Discuss ways to help others experience what it would be like to have these disabilities. • If possible, research disability simulations on the Internet.		
Breakout Groups 15 minutes	• Discuss plans for participation in the main event. • Review requirements of the Disabilities Awareness merit badge.		8 p.m.
Game 10 minutes	Play One-Armed Volleyball (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SPECIAL NEEDS AWARENESS

Meeting Plan: Communicating

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have Scouts practice sending messages using sign language. Groups take turns sending a message by whatever nonverbal means they choose, while another group tries to translate the message.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection To simulate the effect of being mute, have the leader conduct the opening ceremony by speaking with no voice (moving the lips but not making any sound).		7 p.m.
Group Instruction 10 minutes	• Brainstorm ways we rely on the sense of hearing. • Discuss ways we can compensate for hearing loss. • Introduce American Sign Language (ASL).		7:10 p.m.
Skills Instruction 35 minutes	• Learn to count to 20 in ASL. • Use a printed or online ASL dictionary as a resource.		7:45 p.m.
	Try to translate the Oath and Law into ASL. Use a printed or online ASL dictionary as a resource.		
	• Brainstorm a list of 25 words commonly used in Scouting. Guess how they might be signed in ASL, then look up the correct signs in a printed or online ASL dictionary. • Discuss ways to help others experience what it would be like to be deaf or hard of hearing.		
Breakout Groups 15 minutes	• Work on requirements for the Disabilities Awareness merit badge. • Continue planning group participation in the main event.		8 p.m.
Game 10 minutes	Play Say What? (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SPECIAL NEEDS AWARENESS

Meeting Plan: Accessibility and Accommodations

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Blindfold participants as they arrive. Challenge them to navigate from the entrance to a designated location. Assign each person a guide to keep them safe.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	• Invite a guest to discuss accessibility and accommodations. • Discuss how homes and other buildings can be modified to be more accessible for people with a variety of disabilities.		7:10 p.m.
Skills Instruction 35 minutes	Complete an accessibility survey of your meeting place using a resource such as the Checklist for Existing Facilities from www.ada.gov. If you meet in a large facility, assign groups to different areas of the building.		7:25 p.m.
	Complete an accessibility survey of your meeting place using a resource such as the Checklist for Existing Facilities from www.ada.gov. If you meet in a large facility, assign groups to different areas of the building. Make a list of priority improvements that should be made.		
	• Complete an accessibility survey of your meeting place using a resource such as the checklist from www.RaleighNC.gov. If you meet in a large facility, assign groups to different areas of the building. • Make a list of priority improvements that should be made. • Discuss how you could develop and present a plan for improving access.		
Breakout Groups 15 minutes	• Work on requirements for the Disabilities Awareness merit badge. • Continue planning group participation in the main event.		8 p.m.
Game 10 minutes	Play Cane Maze (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SPECIAL NEEDS AWARENESS

Meeting Plan: Adaptive Sports

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As youths arrive, show Internet videos of adaptive sports competitions.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Invite someone who is involved in an adaptive sport as a participant or coach to discuss that sport.		7:10 p.m.
Skills Instruction 35 minutes	• Watch an Internet video of wheelchair basketball. • Review the rules and compare with regular basketball. Is the court the same size? Do players dribble the ball? How do players travel? What happens if a player falls out of his chair? What is a physical advantage foul?		7:20 p.m.
	• Review the above information. • Discuss how strategy in wheelchair basketball is similar to or different from strategy in regular basketball.		
	• Review the above information. • Learn how some teams integrate players who use wheelchairs and nondisabled players. How do they keep the competition fair?		
Breakout Groups 15 minutes	• Work on requirements for the Disabilities Awareness merit badge. • Finish planning group participation in the main event.		7:55 p.m.
Game 15 minutes	Play Disabled Tent Pitching (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

SPECIAL NEEDS AWARENESS

Main Event: Special Olympics

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Volunteer at a Special Olympics event.

Equipment List	• Hat • Sunscreen • Sunglasses • Whistle • Water and food
Activity	• Research opportunities to volunteer with the Special Olympics. • Pick a competition to support, and learn how you can get involved. • At the event, provide encouragement and positive reinforcement to all athletes and more specific assistance as requested by the athlete or coach. • Assist coaches in getting athletes to their events and the awards ceremony on time.
Safety	• Attend pre-event briefing for special instructions and safety considerations. • Keep in contact with coaches and assistants for guidance in case an athlete requires assistance.

Notes

Be sure to spend some time talking with and getting to know the athletes.

SPECIAL NEEDS AWARENESS

Main Event: Awareness Workshop

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Run a workshop to teach disabilities awareness to another Scout unit or youth group.

Equipment List	• Equipment for games and simulations • Adaptive equipment • Videos or other teaching aids
Activity	• Contact a Cub Scout pack or other group and schedule the disabilities awareness workshop. • Develop a list of games and simulations you will include; these could be activities done during this month's meetings or activities you find in other resources. • Assign the games and simulations to patrols or small groups to develop and run. • Create a schedule for the workshop. Be sure to include time after each activity for reflection. • Run the workshop.
Safety	• Have a first-aid kit available. • Cell phones are a good idea. • Identify any hazards participants could encounter, such as tripping or falling. Have spotters and cushions as needed.

Notes

SPECIAL NEEDS AWARENESS

Main Event: Disabilities Awareness Camporee

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Lead a disabilities awareness camporee for your district.

Equipment List	• Equipment for games and simulations • Videos or other teaching aids • Food • Water • Adaptive equipment • Camping equipment • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Contact your district camping and activities committee and volunteer to lead a camporee with a disabilities awareness theme. • Clarify the tasks assigned to your unit (e.g., Saturday activities) and what will be assigned to the district and other units (e.g., promotion, registration, campfires, campsite judging). • Develop a list of games and simulations you will include; these could be activities done during this month's meetings or activities you find in other resources. • Assign the games and simulations to patrols or small groups to develop and run. • Create a schedule for the camporee. Be sure to include time after each activity for reflection. • Conduct the camporee.
Safety	• Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea. • Identify any hazards participants could encounter, such as tripping or falling. Have spotters and cushions as needed.

Notes

REFERENCES

Books

Disabilities Awareness merit badge pamphlet

A Guide to Working With Scouts With Special Needs and Disabilities, No. 510-071

Scouting for Youth With DisABILITIES manual, No. 34059

Organizations and Websites

Americans With Disabilities Act
Website: http://www.ada.gov

Autism Empowerment
Website: http://autismempowerment.org

Autism Speaks
Website: http://autismspeaks.org

Children and Adults With Attention-Deficit/ Hyperactivity Disorder
Website: http://chadd.org

Easter Seals
Website: http://www.easterseals.org

National Down Syndrome Society
Website: http://www.ndss.org

National Library Service for the Blind and Physically Handicapped
Website: http://lcweb.loc.gov/nls

Scouts With Special Needs
Website: http://scouting.org/specialneeds.aspx

Special Olympics
Website: http://www.specialolympics.org

United Cerebral Palsy
Website: http://www.ucp.org

Working With Scouts With Disabilities
Website: http://wwswd.org

Related Program Features

Citizenship, Communication, Mentoring, and Project Planning

Photo and Illustration Credits

Pages 30-1 (*skier,* National Sports Center for the Disabled, courtesy; *van,* BSA/Dan Bryant; *guide dog,* ©Guide Dogs for the Blind Inc., courtesy; *wheelchair,* Shutterstock.com/©Andrey Burmakin, courtesy), 30-2 (BSA file), 30-3 (BSA file), 30-4 (*bowling,* BSA file; *sign,* Shutterstock.com/©gyn9037, courtesy), and 30-5 (BSA file)

Acknowledgments

We are grateful to Tony Mei, Novato, California, for helping to develop the Special Needs Awareness program feature.

What Will You Do Now?

Scouting teaches you to be prepared. When you go on outings, you take along the right equipment, you let your parents know when you'll be back, you monitor the weather, and you take other precautions to ensure that you'll be safe. Despite your best-laid plans, however, the unexpected can happen, and you can be forced to find ways to survive in a harsh environment.

How will you stay warm, dry, and protected from the elements? What will you eat? Where will you get water? How can you make it easier for rescuers to find you? What if rescuers never come?

The Scout motto, "Be Prepared," applies there, too. Learning survival skills before you need them is the epitome of preparedness. This month, you'll learn basic survival skills and apply them in a survival-focused main event. You may also discover how fun and exciting it is to get by with little more than the clothes on your back.

Objectives

This month's activities should:

- Teach Scouts priorities in wilderness survival.
- Build on basic outdoor skills.
- Enhance skills in using natural resources to survive.
- Help Scouts understand the value of a positive mental attitude in the face of uncertainty.
- Let Scouts practice basic survival skills.
- Teach Scouts how to survive in special circumstances.

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot requirements 1 and 2
- Second Class requirements 3a and 3e
- First Class requirements 1 and 3
- Emergency Preparedness, First Aid, Safety, Search and Rescue, Signs, Signals, and Codes, and Wilderness Survival merit badges
- Survival Varsity Scout activity pin
- Ranger: Requirements 5 and 7

Leadership Planning

As a leadership team, you may want to discuss the following items when choosing wilderness survival as your program feature during your planning meetings:

1. Who in our unit has completed survival training or earned the Wilderness Survival merit badge?
2. Do we have adult resources in our unit or community that could help bring this subject to life?
3. What special survival situations do we need to consider based on our area of the country?
4. Where can we go to practice survival techniques?
5. How can we practice survival techniques and still follow Leave No Trace guidelines?
6. To meet our needs, what should we change in the sample meeting plans?

PARENTS CAN HELP WITH THE WILDERNESS PROGRAM FEATURE SURVIVAL BY:

1. Sharing their wilderness survival expertise and training
2. Helping Scouts gather items for survival kits
3. Providing materials for making shelters
4. Providing transportation for the main event
5. Helping at the main event

WILDERNESS SURVIVAL INFORMATION

Survival Gear

Every survival kit begins with the Scout Basic Essentials. Get into the habit of having them with you on every trip into the backcountry.

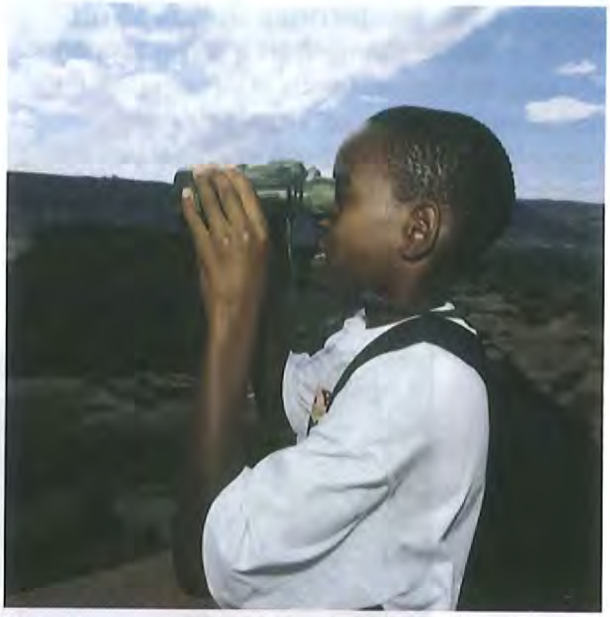
- Pocketknife
- First-aid kit
- Extra clothing
- Rain gear
- Water bottle
- Flashlight
- Trail food
- Matches and fire starters
- Sun protection
- Map and compass

What about a cell phone and a Global Positioning System (GPS) receiver? Those can be useful to have, but don't rely too much on technology. The wilderness areas Scouts like to explore can be far removed from any cell towers. While GPS units don't rely on cell towers, they stop working if they get submerged in water or if their batteries die.

What to Do When Things Go Wrong

Following the seven priorities of survival in a back-country or wilderness location will help you act effectively when things don't go as planned. The priorities are listed here, in order of importance.

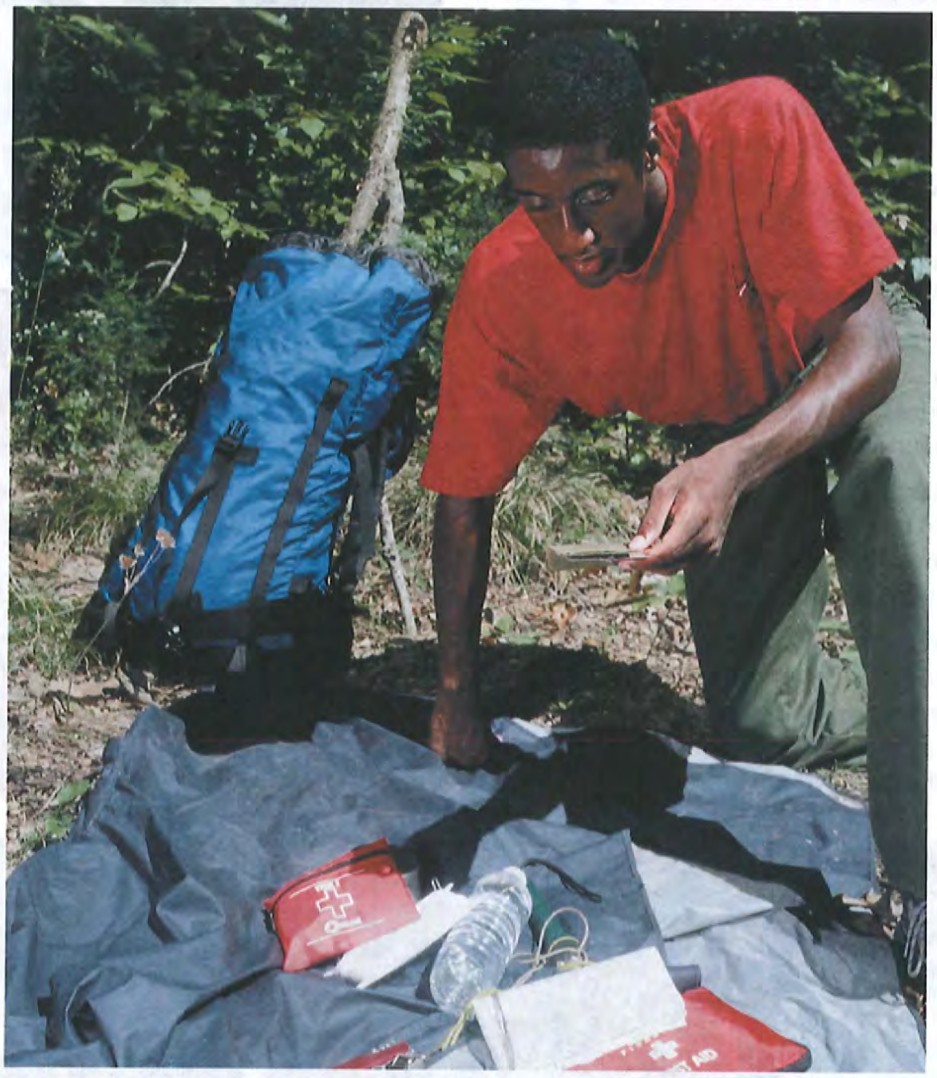
1. **STOP.** Don't panic. Unless there are immediate dangers, **S**top, **T**hink, **O**bserve, and **P**lan before you do anything else.
2. **Provide first aid.** Treat life-threatening injuries and illnesses immediately.
3. **Seek shelter.** Without using more energy than necessary, find or create shelter that will help your body maintain its ideal temperature.
4. **Build a fire.** In chilly and cold weather, a fire can be important for maintaining body warmth, melting snow for water, drying out clothing, signaling for help, and raising your spirits.
5. **Signal for help.** Signaling for help can be very important if you have become lost or if you or others in your group are injured and cannot be moved.
6. **Drink water.** You can survive for days without food, but in hot weather without water, only hours. Dehydration happens in cold weather, too, even though you may not feel so thirsty.
7. **Don't worry about food.** Yes, you may get hungry, but that's better than eating plants that cause intestinal stress or poisoning or burning more energy capturing an animal to eat than eating that animal would give you.



Helping the Wilderness Survive You

The Boy Scouts of America is a strong supporter of Leave No Trace methods of camping, hiking, and all other outdoor activities. Follow the principles of Leave No Trace whenever you are practicing survival skills. Do everything you can to protect the environment, especially as you are building fires and gathering materials for constructing shelters.

In a real emergency situation, put the safety of yourself and other persons first, and take whatever actions you must to survive. Think survival first, low-impact second.



WILDERNESS SURVIVAL GAMES

Shipwreck

Equipment: For each team, a ½-inch-thick plywood circle, 3 or 4 feet in diameter, to represent a ship

Method: Teams line up at one end of a long playing area. On the leader's signal, team members hold the sides of their "ship" and run toward the other end of the playing area. When the leader yells "Shark!" each team must jump aboard its ship. Repeat this process until one team reaches the finish line.

Scoring: The first team with all members' feet off the ground when the leader yells "Shark!" earns 1 point. The first team to reach the finish line earns an additional 3 points.

Notes: Be sure to sand or rasp any sharp edges and splinters on the plywood circles. To extend the game, have teams return to the starting point.

Survival Kit Kim's Game

Equipment: Two boxes; 20 to 30 assorted items that would be useful in a survival situation; paper and pencils for each team

Method: Before the game, put all the items in one box. While teams watch, one leader takes an item out and tosses it to a second leader, who places it in the second box. Repeat until all objects have been moved from one box to the other. Teams must then list all the items they saw.

Scoring: The team with the most correct items listed is the winner.

Variation: To make the game more challenging, mix in items that would not be useful in a survival situation, and deduct points when these items are listed. You could award extra points when teams list items and explain how they could be useful.

Inchworm

Equipment: None

Method: Pair the Scouts, then have them sit on each other's feet and grasp each other's elbows or upper arms. Each pair advances by having the Scout whose back is toward the direction of travel lift his bottom off the other's feet and rock backward. Meanwhile, his partner slides his feet forward about a foot and rocks forward as the other sits down on his feet again. Continue in this rocking-sliding motion to the turning line—but don't turn. For the return trip, Scouts simply reverse roles, with the Scout who had been going backward now going forward.

Scoring: The first pair to return to the start wins.

Frantic Object

Equipment: A number of worn-out tennis balls (easy to find at regularly used tennis courts)

How to play: Everyone in the group is given one or two tennis balls. Play on a smooth surface that is bounded by walls. On signal, the group attempts to keep every tennis ball in motion. Referees are used to spot balls that have stopped moving.

Scoring: This game isn't scored. To gauge progress in team development, time the group to see how long they can keep the balls in motion. Then, challenge them to beat their previous time.

Variation: Add additional tennis balls during the game to increase the difficulty.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Explain the order of priorities in survival situations.
- Discuss how Leave No Trace guidelines apply to survival practice and actual survival situations.
- Teach the acronym STOP.
- Explain how personal locator beacons work.

DEMONSTRATE

- Show videos that teach survival techniques.
- Do a show-and-tell with the items in a survival kit.
- Show Scouts how to use signal mirrors.
- Set up ground-to-air signals in a large room like a gymnasium.

GUIDE

- Help Scouts assemble personal survival kits.
- Do a round-robin where Scouts can practice methods for starting a fire without matches.
- Have Scouts research survival techniques for special situations like desert survival.
- Have Scouts practice using signal mirrors.

ENABLE

- Present a survival scenario where Scouts have to prioritize the items they have and explain how each could contribute to survival.
- Have older Scouts develop survival scenarios for younger Scouts to complete.
- Have Scouts sleep overnight in shelters they build.
- Give Scouts the chance to teach younger Scouts the survival skills they've learned, using the EDGE method.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Overnight Activity
Survival field day–Hold a half-day survival workshop for Webelos Scouts.	Shelter camping–On a weekend outing, build and sleep in survival shelters.	Scout vs. Wild–Complete an overnight campout with minimal survival gear.

WILDERNESS SURVIVAL

Meeting Plan: Survival Basics

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show Internet videos from survival television shows like "Man vs. Wild."		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Introduce the seven priorities of survival from the *Wilderness Survival* merit badge pamphlet (1. STOP; 2. Provide first aid; 3. Seek shelter; 4. Build a fire; 5. Signal for help; 6. Drink water; 7. Don't worry about food).		7:10 p.m.
Skills Instruction 35 minutes	Discuss ways *not* to get lost, including the points of Trek Safely.		7:20 p.m.
	• Review the information above. • Discuss first-aid techniques that could be important in a survival situation.		
	• Review the information above. • Discuss special considerations for these survival situations: cold and snowy; wet (forest); hot and dry (desert); windy (mountains or plains); water (ocean, lake, or river).		
Breakout Groups 15 minutes	• Work on requirements for *Wilderness Survival* merit badge. • Begin planning participation for the main event.		7:55 p.m.
Game 15 minutes	Play Shipwreck (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDERNESS SURVIVAL

Meeting Plan: Survival Kits

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a display of survival gear such as personal locator beacons and high-end signal mirrors.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Review the Scout basic essentials and how they can contribute to survival.		7:10 p.m.
Skills Instruction 40 minutes	Make a list of items that should go in a personal survival kit.		7:15 p.m.
	• Review the information above. • Make a list of items that should go in a unit survival kit.		
	• Review the information above. • Using catalogs or the Internet, rate several commercial survival kits on completeness and cost-effectiveness. Decide whether it would be cheaper to buy or make a survival kit.		
Breakout Groups 15 minutes	• Continue advancement work. • Plan group duty roster for upcoming main event.		7:55 p.m.
Game 15 minutes	Play Survival Kit Kim's Game (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDERNESS SURVIVAL

Meeting Plan: Fire and Shelter

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Challenge each Scout on arrival to set fire to tinder using a flint and steel set.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Scout Oath Uniform inspection		7 p.m.
Group Instruction 15 minutes	• Review the basics of starting fires without matches. • Set up stations where Scouts can try flint and steel, fire by friction, and other techniques.		7:10 p.m.
Skills Instruction 30 minutes	Discuss how to make shelters with found materials and clothing. If possible, practice outside your meeting place (keeping in mind Leave No Trace guidelines).		7:25 p.m.
	• Discuss the information above. • Discuss natural features that enhance or detract from a site's ability to keep you warm and dry.		
	• Discuss the information above. • Discuss how to make a shelter visible to search parties.		
Breakout Groups 15 minutes	• Continue advancement work. • Plan menu for upcoming main event.		7:55 p.m.
Game 15 minutes	Play Inchworm (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDERNESS SURVIVAL

Meeting Plan: Signaling

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As groups of Scouts arrive, challenge them to complete a wilderness survival simulation game such as "Lost at Sea" or "Lunar Survival" that requires players to rank items in terms of their use in a survival situation. (Do an Internet search on "survival simulation games.")		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 15 minutes	Review basic distress signals, including noise, fires, mirrors, lights, and ground-to-air-signals.		7:10 p.m.
Skills Instruction 35 minutes	Practice signaling with mirrors, CDs, or other shiny objects. If inside or at night, use a strong flashlight to simulate the sun and signal a person across the room who represents a potential rescuer.		7:25 p.m.
	• Review the information above. • Review the common ground-to-air signals shown in the *Wilderness Survival* merit badge pamphlet.		
	• Review the information above. • Discuss how color, motion, and shadows can enhance visibility. • Discuss the importance of conserving flares and voices until the most opportune time.		
Breakout Groups 15 minutes	• Continue advancement work. • Finalize plans for participation in the main event.		8 p.m.
Game 10 minutes	Play Frantic Object (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team finalizes plans for the main event and begins preparation for next month's programming.		

*All times are suggested.

WILDERNESS SURVIVAL

Main Event: Survival Field Day

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: 4 hours

Budget: Completed _____ Approved _____

Camping: Duty roster _____ Menu _____

Transportation: Group _____ Self _____

Tour and activity plan: Completed _____ Submitted _____

Essential (Tier I)

Hold a half-day survival workshop for Webelos Scouts.

Equipment List	• Survival kits • Materials to demonstrate fire building, signaling, and shelter construction • Food • Water • Scout Basic Essentials
Activity	• Identify a Webelos den (or other group) to which you can teach survival skills. • Select a location for the workshop. • Assign patrols or small groups to teach specific survival skills. • Gather materials needed to demonstrate survival skills. • Set up a round-robin schedule that allows Webelos to learn survival skills.
Safety	• Use the buddy system. • Have a first-aid kit. • Be especially careful when using and teaching the use of pocketknives. • Cell phones are a good idea.

Notes

Follow the principles of Leave No Trace whenever you are practicing survival skills.

WILDERNESS SURVIVAL

Main Event: Shelter Camping

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster _____ Menu _____

Transportation: Group _____ Self _____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

On a weekend outing, build and sleep in survival shelters.

Equipment List	• Group and personal camping equipment • Food • Scout Basic Essentials
Activity	• Choose your camping site and event location. • Plan other activities as desired (hiking, boating, mountain biking, etc.). • Plan camping duty roster and meal plan. • Spend part of a day building emergency shelters and sleep in those shelters overnight. On a Friday-through-Sunday outing, you might choose to sleep in tents on Friday night and shelters on Saturday night.
Safety	• Normal camping safety guidelines apply. • Use the buddy system. • Have a first-aid kit. • Cell phones are a good idea.

Notes

Follow the principles of Leave No Trace whenever you are practicing survival skills.

WILDERNESS SURVIVAL

Main Event: Scout vs. Wild

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster _____ Menu _____

Transportation: Group _____ Self _____

Tour and activity plan: Completed _____ Submitted _____

Advanced (Tier III)

Complete an overnight campout with minimal survival gear.

Equipment List	• Survival kits • Food • Water • Scout Basic Essentials
Activity	• Choose your camping site and event location. • Before the outing, give each Scout a large coffee can in which to assemble a survival kit. • Travel to the event site. • Have Scouts pair up and spend the night relying solely on what they have brought in their survival kits and what they can find on the land. • The following day, evaluate the shelters Scouts built for durability, protection from the elements, and visibility. • Practice other survival and general camping skills as time allows.
Safety	• Normal camping safety guidelines apply. • Use the buddy system. • Have a first-aid kit available. • Cell phones are a good idea.

Notes

Follow the principles of Leave No Trace whenever you are practicing survival skills.

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***Backpacker* Magazine**
Website: http://www.backpacker.com

Equipped to Survive
Website: http://www.equipped.org

National Outdoor Leadership School (NOLS)
Website: http://www.nols.edu

***Outside* Magazine**
Website: http://www.outsideonline.com

Wilderness Education Association
Website: http://www.weainfo.org

Wilderness Survival
Website: http://www.wilderness-survival.net

Wildwood Survival
Website: http://www.wildwoodsurvival.com

Related Program Features

Backpacking, Camping, Hiking, Emergency Preparedness, Outdoor Ethics, and Winter Camping

Photo and Illustration Credits

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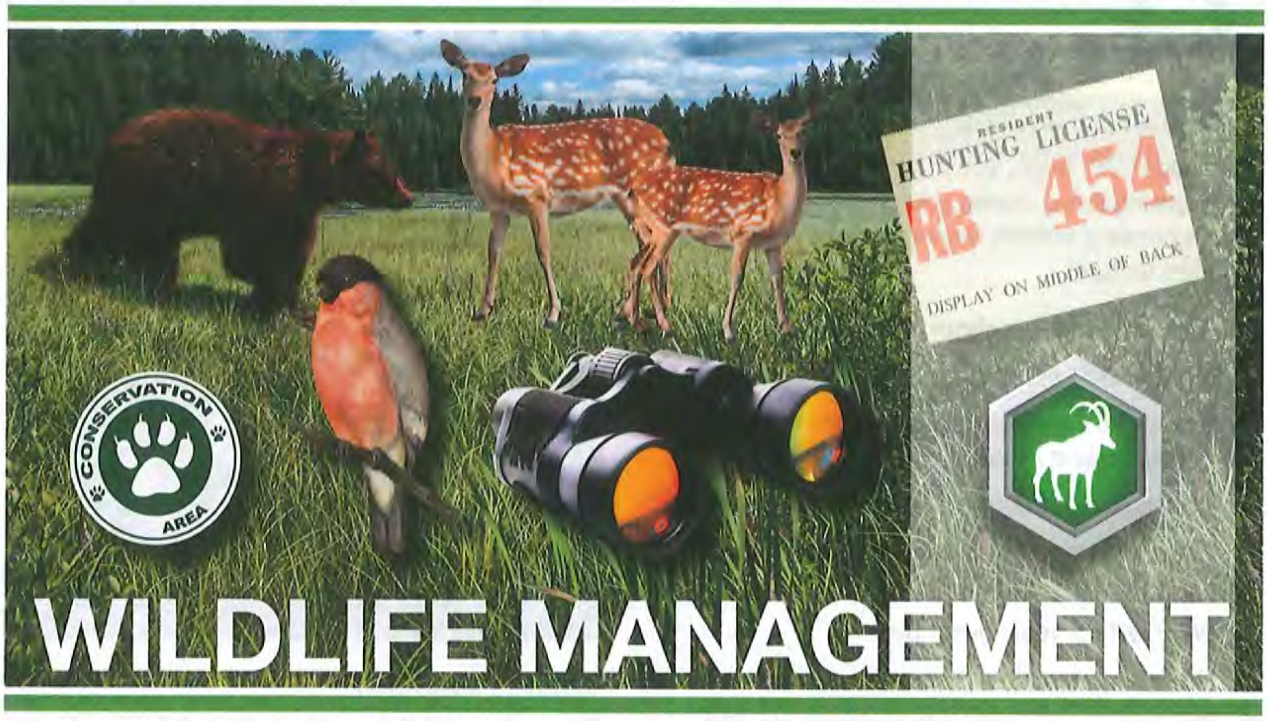

WILDLIFE MANAGEMENT

Balancing the Needs of Wildlife and People

Have you ever wondered what tracking elephant herds in Kenya, protecting manatees in Florida, and installing birdhouses in your own backyard have in common? These are all examples of wildlife management, which is the applied science and art of managing wildlife and its habitat to benefit the environment, animals, and humans. Wildlife management is an engaging field that finds solutions to problems involving the furs, fins, and feathers with which we share the world.

If you think wildlife management just involves biology, think again. To tackle the major issues between wild animals and people, wildlife professionals use skills from statistics, chemistry, biology, ecology, climatology, and geography to achieve the best results. Plus, wildlife management involves more than just a small network of people. More than 10 federal agencies, numerous state agencies, and various nonprofit groups work to protect and manage wildlife in some way. Although many people and resources are already involved, every individual (especially Scouts) can play an important role in protecting wildlife.

Through Scouting's outdoor adventures, Scouts often get a closer appreciation for the wildlife they may encounter. Furthermore, Scouts promise to be kind (in the Scout Law), to be conservation-minded (in the Outdoor Code), and to respect wildlife (in the principles of Leave No Trace). This month, you can put those promises into action as you learn what wildlife is, how we manage animals and their habitats, and ultimately what role we play in the future of wildlife.

Objectives

This month's activities should:

- Help Scouts understand what wildlife is.
- Explain to Scouts why we manage wildlife.
- Show examples of how we manage wildlife.
- Introduce Scouts to the Endangered Species Act.
- Highlight how recreational fishing and hunting fit into wildlife management.
- Emphasize that each Scout plays a role in the future of wildlife.

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot requirement 2
- Second Class requirements 3a and 6
- First Class requirement 3
- Bird Study, Environmental Science, Fish and Wildlife Management, Fishing, Fly-Fishing, Mammal Study, Nature, Oceanography, Reptile and Amphibian Study, and Sustainability merit badges
- Ranger: Conservation core requirement; Fishing, Hunting, and Plants and Wildlife electives

Leadership Planning

As a leadership team, you may want to discuss the following items during your planning meetings when choosing Wildlife Management as your program feature:

1. What do we know about wildlife?
2. What wildlife is managed in our community?
3. Whom do we know whose career involves managing and protecting wildlife?
4. What agencies manage wildlife in our community?
5. What wildlife management–related merit badge could we focus on?
6. What will our main event be?
7. How can we involve parents?
8. How should we change the sample meeting plans to better fit our needs?

PARENTS CAN HELP WITH THE WILDLIFE MANAGEMENT PROGRAM FEATURE BY:

1. Helping gather or provide material for this month's games
2. Recruiting subject matter experts to participate in the weekly meetings
3. Becoming more familiar with wildlife found in the area
4. Sharing any hunting or fishing knowledge
5. Providing transportation for the main event

SPECIFIC WILDLIFE MANAGEMENT INFORMATION

What Is Wildlife?

Depending on whom you ask, the definition of wildlife can vary. To a homeowner, it can mean Steller's jays, chickadees, or gray squirrels. A hunter might tell you white-tailed deer, elk, or turkeys. To a rancher, it might mean coyotes and wolves. Although these are all different examples of animals people associate as wildlife, a similarity they all share (and a good definition of wildlife) is that they are *free-ranging, nondomesticated animals usually in their natural environment*. Even though wild mammals and birds are often the focus of management efforts, it is important to realize all wild animals fall under the term wildlife.

Are Fish Wildlife?

Fish and wildlife are frequently talked about separately, even though fish do fall under the definition of wildlife. This distinction stems from the early days of wildlife management, but it has begun to fade recently with agencies and groups recognizing the term "wildlife" as comprehensive.

Why Manage Wildlife

During most encounters with wildlife, we may see only one or a few individual animals that are doing fine, giving the impression everything is normal with the species. However, just because the few animals you see do not have problems, that does not mean the population—*the grouping of all individuals of a certain species in a designated area*—is doing well, too. Wildlife populations can face a variety of problems, stemming from diverse causes. Often when a wildlife population is declining (or occasionally growing too big), wildlife professionals intervene to help adjust the population to a sustainable number. They are especially keen on working to conserve and/or preserve wildlife when humans have jeopardized their populations.

Besides addressing population problems, wildlife managers also try to prevent and solve human-wildlife conflicts. Whether it's a bear eating out of trash cans in a neighborhood or birds flying into planes near a busy airport, wildlife can interfere with daily life, thus creating human-wildlife conflicts. These conflicts usually happen when urban development spreads into previously wild areas, displacing wildlife due to loss of habitat. Since these human-wildlife conflicts benefit neither people nor animals, wildlife managers look for solutions.

Types of Management

Wildlife management can come in as many shapes and sizes as the animals it aims to protect; however, there are two general categories:

1. **Active (or direct) management** works directly on the population level, changing its numbers by direct actions. Examples include breeding programs and adjusted hunting levels, or altering numbers through indirect actions such as protecting the animal's habitat, removing predators, and vaccinating individuals against disease. Active management is generally implemented when a wildlife species slides to a dangerously low level or increases to an unsustainably high level.
2. **Inactive (custodial or passive) management** works to be preventive and/or protective of the wildlife population. It seeks to help minimize outside factors on the population and its respective habitat. Wildlife refuges, national parks, and marine sanctuaries are all examples of passive management. Other methods include monitoring population levels and preventing interference to migratory routes or nesting grounds.

Endangered Species Act

The Endangered Species Act of 1973 is arguably the most powerful law protecting wildlife in the United States. The act reinforces the idea that every plant or animal species and its niche—*an organism's role within its community*—are important. Some major points of the act include the following:

- The act outlines the process for categorizing an animal if its population is dangerously low. A species can be listed as "endangered," meaning it is in danger of extinction throughout all or a significant portion of its range, or "threatened," meaning it is likely to become endangered in the foreseeable future.
- The act protects critical habitats for endangered or threatened animals.
- The act makes it illegal to harm endangered or threatened animals or their habitat.
- The act is enforced by the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

Hunting and Fishing

Although it might seem strange that killing animals can help a species, hunting and fishing play important roles in wildlife management. Annually, state wildlife managers determine what number of a particular species can be harvested or taken via hunting and fishing regulations for their respective state, helping states reach their goals for certain wildlife populations. Revenue from hunting and fishing licenses and permits also help cover the wildlife management budgets at the state and federal levels.

WILDLIFE MANAGEMENT GAMES

Wildlife Tracks Game

Equipment: 10 to 20 pictures or silhouettes of local wildlife's footprints or tracks; an answer key indicating which track goes with which species

Method: Individually or in teams, Scouts look at a track and take turns matching the track to the animal. A judge informs them whether or not they are correct. Once a track is correctly identified, they move on to the next track.

Scoring: 1 point is awarded to the individual or team for each correctly identified track.

Notes: Simple Internet searches can pull up "common" wildlife (raccoons, rabbits, deer, etc.). If you have unique local wildlife, try to include those tracks. If you want to make the game harder, include exotic wildlife species like elephants.

Predator and Prey

Equipment: A group of Scouts, preferably 10 or more; an outdoor area

Method: This is a modification of tag in which some members of the group are chosen as "predators" and the rest of the group is designated "prey." The goal of the game is for the predators to capture all the prey by tagging them in a given round (lasting five minutes or so) within a designated area. After each round, the number of predators should vary (e.g., decrease number of predators down to two, increase up to eight; players can switch roles). At the end, a debriefing should be held where Scouts are asked about how the prey population did in relation to the number of predators in each round.

Scoring: Scouts who are "prey" and tagged by a "predator" are considered out and should wait until the next round. They can either "take a knee" or step to the sidelines.

Fish ID Game

Equipment: 10 to 15 pictures of fish found in the local area; an answer key indicating the correct common name of each fish pictured

Method: Scouts individually or in teams take turns guessing the common name for each fish pictured; a judge informs them whether or not they are correct. Once a fish is correctly identified, move on to the next fish.

Scoring: 1 point is awarded to the individual or team for each fish correctly identified.

Notes: Pictures of common fish in your state or area can be easily found online, but the difficulty can be increased by adding species from around the country or world (sturgeon, yellowfin tuna, etc.).

Wildlife Scat-Candy Game

Equipment: Chocolate sprinkles, chocolate macaroons, brown M&Ms, chocolate-covered raisins, licorice-flavored jelly beans, Hershey's Kisses, and Tootsie Rolls; pens or pencils and sheets of paper for writing answers

Method: Scouts look at the "scat" (candy) individually or in teams and write down which animal they think made which scat. A word box with the possible species listed could be provided to assist players. After all guesses are in, the correct answers are revealed, and the Scouts can eat the candy (if they still want to!).

Scoring: Points are awarded for each correct match.

Notes: The following types of candy best represent these animals by appearance:

chocolate sprinkles = mouse
chocolate macaroons = beaver
M&Ms = rabbit
chocolate-covered raisins = deer
jelly beans = rat
Hershey's Kisses = elk
Tootsie Rolls* = raccoon

*The candy can be quickly warmed up in a microwave oven and shaped to seem more realistic.

E.D.G.E. Ideas

***E**xplain* how it is done—Tell them.
***D**emonstrate* the steps—Show them.
***G**uide* learners as they practice—Watch them do it.
***E**nable* them to succeed on their own—Have them practice/teach it.

EXPLAIN

- Talk about evidence or signs a mammal has been in an area (e.g., scat, tracks, fur).
- Discuss the common bird species found in your area.
- Explain what a fishing license is and what regulations exist on common sport fish.
- Show an online video from either an agency or respected group overviewing what an endangered species is.
- Discuss the importance of protecting wildlife habitat in your local community and globally.

DEMONSTRATE

- Demonstrate how to identify mammals from the clues they leave behind.
- Show how to identify common bird species with binoculars or a spotting scope and a field guide.
- Walk through the process of getting a fishing license for a youth or adult.
- Demonstrate how to look up endangered species through the U.S. Fish and Wildlife Service's database, www.fws.gov/endangered.

GUIDE

- Have Scouts practice examining clues or signs and determining what mammal left them.
- Provide an opportunity for Scouts to practice identifying birds in an outdoor setting.
- Guide Scouts on a fishing trip, ensuring all the appropriate regulations are followed.
- Have older Scouts research an endangered species in your county or state.
- Have Scouts help with a habitat conservation project or cleanup.

ENABLE

- Ask Scouts on outings to list what mammals they think have been in the area.
- Encourage Scouts to go on birding trips or keep a personal bird list.
- Have older Scouts help lead younger Scouts on a fishing trip.
- Challenge Scouts to give a presentation on an endangered species.
- Encourage Scouts to participate in existing conservation projects or create their own.

MAIN EVENT SUMMARIES

ESSENTIAL	CHALLENGING	ADVANCED
Day Activity	Overnight Activity	Overnight Activity
Refuge or hatchery tour—Have your unit visit a national wildlife refuge or state fish hatchery near your community or in your area. Arrange ahead of time to have a staff member meet your unit and provide an overview of how the refuge or hatchery aids in wildlife management.	Habitat conservation or restoration—Go on a weekend camping trip during which the unit completes a service project benefiting wildlife habitat. The service project should focus on habitat conservation or restoration and should benefit public lands or lands held by a respected nonprofit organization (e.g., The Nature Conservancy).	Wildlife survey or research project—Have the unit work with an agency or research group on conducting a wildlife survey or research project. Examples could be doing a mammal or bird count, monitoring for the presence or absence of a species, or helping with fieldwork. This activity is geared toward a small group of older Scouts and could span several weekends.

WILDLIFE MANAGEMENT

Meeting Plan: What Is Wildlife?

Week 1 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Display a variety of wildlife identification books and field guides. Encourage Scouts to research species they're interested in and share information they learn.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Discuss the definition of wildlife and how different people perceive wildlife differently.		7:10 p.m.
Skills Instruction 40 minutes	• Identify common wildlife in your town. • Talk about how different wildlife species interact. • Share examples of wildlife from other parts of the country or world.		7:20 p.m.
	• Talk about what a habitat is. • Discuss why habitat is important to wildlife. • Share examples of wildlife from other parts of the country or world.		
	• Identify agencies involved with wildlife. • Discuss habitat loss and some of its causes. • Talk about society's perception of predators.		
Breakout Groups 15 minutes	• New members work on basic Scout skills. • Older members look at merit badges that might overlap with wildlife management topics. • Review the last main event, and discuss what could have made it better.		8 p.m.
Game 10 minutes	Play Wildlife Tracks Game (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDLIFE MANAGEMENT

Meeting Plan: Why We Manage Wildlife

Week 2 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Lay out on a table the leaves from various plants and trees, and place corresponding cards facedown identifying the respective plant or tree. Let Scouts guess before looking at the answer.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	Discuss the following: • What a population is • Problems faced by wildlife populations • The definition of a human-wildlife conflict		7:10 p.m.
Skills Instruction 40 minutes	• Discuss an animal's "niche." • Give examples of wildlife species with important jobs (scavengers, pollinators, etc.). • Highlight the ways every animal is connected and the problems that occur when there are too many or two few of a certain species.		7:20 p.m.
	• Talk about the ways humans affect wildlife populations. • Discuss why it's important to try and save declining populations.		
	• List examples of some human-wildlife conflict in your community or area. • Discuss the ways wildlife management relates to solving this problem.		
Breakout Groups 15 minutes	• Continue to work on advancement or electives. • Make plans for participation in the main event; outline a start and end time, and coordinate transportation.		8 p.m.
Game 10 minutes	Play Wildlife Scat-Candy Game (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDLIFE MANAGEMENT

Meeting Plan: How We Manage Wildlife

Week 3 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Set up a table displaying different fishing lures and flies. Have signs that explain which fish or environment each one is used for.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Teach the two general types of wildlife management and the role hunting and fishing play in management.		7:10 p.m.
Skills Instruction 45 minutes	• Walk through different examples of wildlife management and have Scouts sort them into the two categories. • Show videos of wildlife management in action.		7:15 p.m.
	• Talk about different careers that involve wildlife management. • Explain the process of getting a fishing license. • Cover regulations on popular sport fish.		
	• Discuss the two general types of management and situations when one might be preferred over the other. • Review the process of getting a hunting license. • Discuss the different categories of hunting and general safety precautions.		
Breakout Groups 15 minutes	• Continue work on advancement or electives. • Continue plans for participation in the main event; assign responsibilities and create a packing list.		8 p.m.
Game 10 minutes	Play Fish ID Game (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDLIFE MANAGEMENT

Meeting Plan: The Future of Wildlife

Week 4 Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	As Scouts arrive, show Internet videos about the National Wildlife Federation's Certified Wildlife Habitat program. (Find some at youtube.com/user/NationalWildlife.) Talk about how unit families could make the area more welcoming to wildlife.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Discuss the following: • The Endangered Species Act of 1973 • The definition of endangered species • The definition of a threatened species		7:10 p.m.
Skills Instruction 40 minutes	• Talk about prominent endangered species globally. • Ask Scouts why we should try saving an endangered species. • Share the success story of the recovery of the bald eagle.		7:15 p.m.
	• Share information about endangered or threatened species that live in your area or state. • Demonstrate how to look up information about endangered species. • Talk about the efforts underway to save the species.		
	• Discuss the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). • Brainstorm ways you can help with saving endangered species in your daily life. • Ask Scouts how they can help ensure a better future for wildlife.		
Breakout Groups 15 minutes	• Continue work on advancement or electives. • Finish plans for participation in main event; confirm the final details, and walk through the sequence of events.		7:55 p.m.
Game 15 minutes	Play Predator and Prey (described earlier).		8:10 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
	Total 90 minutes of meeting		
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.

WILDLIFE MANAGEMENT

Main Event: Refuge or Hatchery Tour

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Daytime, 4 to 6 hours

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential (Tier I)

Have your unit visit a national wildlife refuge or state fish hatchery near your community or in your area. Arrange ahead of time to have a staff member meet your unit and provide an overview of how the refuge or hatchery aids in wildlife management.

Equipment List	• Uniform (as decided upon earlier) • Pen and paper for taking notes • Camera or cell phone as appropriate • Lunch (Decide on individual or group.) • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Find a national wildlife refuge or state fish hatchery in your area. • Check hours and availability and whether you have to coordinate a visit. • Decide on a date, start and end times, and transportation. • Arrange to have a staff member meet with your group. • Figure out any plans for lunch or food.
Safety	• Always use the buddy system. • Keep a first-aid kit on hand, but also know where medical assistance is available. • Have a cell phone and numbers available for emergencies. • Take any other precautions as indicated for the activity type.

Notes

WILDLIFE MANAGEMENT

Main Event: Habitat Conservation or Restoration

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Challenging (Tier II)

Go on a weekend camping trip during which the unit completes a service project benefiting a wildlife habitat. The service project should focus on habitat conservation or restoration and should benefit public lands or lands held by a respected nonprofit organization (e.g., The Nature Conservancy).

Equipment List	• Work clothes • Tools and equipment (check to see if provided) • Camping gear (individual and group) • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Identify an agency or group you could partner with for a service project. • Figure out location of project and where you could camp nearby. • Decide on a date, start and end times, and transportation. • Plan a typical weekend campout for your group, keeping in mind how long the project will take.
Safety	• Always use the buddy system. • Keep a first-aid kit on hand, but also know where medical assistance is available. • Have a cell phone and numbers available for emergencies. • Follow BSA guidelines for tool use, and review appropriate personal protective equipment. • Take other precautions as indicated for the activity type.

Notes

WILDLIFE MANAGEMENT

Main Event: Wildlife Survey or Research Project

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity: Day or overnight

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Advanced (Tier III)

Have the unit work with an agency or research group on conducting a wildlife survey or research project. Examples could be doing a mammal or bird count, monitoring for the presence or absence of a species, or helping with fieldwork. This activity is geared toward a small group of older Scouts and could span several weekends.

Equipment List	• Appropriate clothing • Equipment needed for research • A communication plan • Camping gear as needed • Computers, if needed • Power source, if needed • Scout Basic Essentials (Review the list and take what you need.)
Activity	• Contact colleges/universities, agencies, or nonprofits for research opportunities. • Invite a researcher to visit with the group. • Determine how your group will assist with the research. • Make appropriate assignments, and consider safety needs. • Determine whether or not it will be completed through day outings or campouts. • Work on research project as planned. • Submit research results and observations as directed.
Safety	• Identify possible risks of research activity, and discuss them with the researcher(s). • Always use the buddy system. • Keep a first-aid kit on hand, but also know where medical assistance is available. • Have a cell phone and numbers available for emergencies. • Take other precautions as indicated for the activity type.

Notes

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National Audubon Society
Website: http://www.audubon.org

National Marine Fisheries Service
Website: http://www.nmfs.noaa.gov

National Wildlife Federation
Website: http://www.nwf.org

The Nature Conservancy
Website: http://www.nature.org

U.S. Fish and Wildlife Service
Website: http://www.fws.gov

World Wildlife Fund
Website: http://www.worldwildlife.org

Related Program Features

Fishing, Nature and Environment, Outdoor Ethics, Science, and Sustainability

Photo and Illustration Credits

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Acknowledgments

We are grateful to Nick Dannemiller, Fort Collins, Colorado, 2014 Order of the Arrow national chief, for helping to develop the Wildlife Management program feature.

APPENDIX

ANNUAL HEALTH AND MEDICAL RECORD

All participants must complete parts A and B of the Annual Health and Medical Record, No. 680-001, each year. Doing so will help ensure that the minimum standards for participation in various activities are met. Some activities will call for completion of the longer form. For the latest form and information, go to http://www.scouting.org/scoutsource/HealthandSafety/ahmr.aspx.

Meeting Plan: _____

Week __ Date_____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening __ minutes before meeting			_____
Opening Ceremony __ minutes	Flag presentation Oath and Law Uniform inspection		_____
Group Instruction __ minutes			_____
Skills Instruction __ minutes	•		_____
	•		
	•		
Breakout Groups __ minutes			_____
Game __ minutes			_____
Closing __ minutes	Announcements Leader's minute Closing		_____
	Total 90 minutes of meeting		
After the Meeting __ minutes	Leadership team review plans for the next meeting and for the main event.		

*All times are suggested.

Main Event: _____

Date_____

Logistics

Location: _____

_____

Departure time: _____

Return time: _____

Duration of activity:

Budget: Completed _____ Approved _____

Camping: Duty roster_____ Menu _____

Transportation: Group _____ Self_____

Tour and activity plan: Completed_____ Submitted _____

Essential | Challenging | Advanced

Equipment List	•
Activity	•
Safety	

Notes

Crew _____

VENTURING PROGRAM PLANNING CHART

Charter Expiration Date _____

Month	Program Features				District/Council Activity	Special Events/ Holidays	Board of Review / Court of Honor	Crew Committee	District/Council Program Forum	Venturing Officers' Association (VOA)	Miscellaneous and Program Planning Date(s)
	Meeting 1	Meeting 2	Meeting 3	Weekend Activity							
Sept. 2011											
Oct. 2011											
Nov. 2011											
Dec. 2011											
Jan. 2012											
Feb. 2012											
Mar. 2012											
Apr. 2012											
May 2012											
June 2012											
July 2012											
Aug. 2012											

VENTURING PROGRAM PLANNING CHART (A program package item)

BOY SCOUTS OF AMERICA

Boys' Life subscriptions expire two months after unit charter expiration.

331-019
2011 Printing

Budget Worksheet

Item	*Total Cost*	*Per-Person Cost*
Transportation This may or may not include meals. Check insurance coverage on packs and luggage if traveling by commercial carrier.	_____	_____
Lodging Include cost of overnight stops to and from your activity, includinguser fees for public campgrounds.	_____	_____
Meals Each individual can pay for his or her own meals en route, or meal expenses can be pooled. Include tips and snacks.	_____	_____
Training Determine cost of meals and other costs for weekend training.	_____	_____
Use or Participation Fees Many public areas may charge a use fee. Include fees such as tickets for ski lifts and sporting events. Find out how much these fees are and include them here.	_____	_____
Insurance Include vehicle insurance and accident and sickness insurance if not already covered.	_____	_____
Equipment Purchase or Rental Include purchase or rental of equipment such as tents, snowboards and boots, paddleboards, and life jackets.	_____	_____
Side Trips and Tours Include costs of any special side trips or activities that are planned.	_____	_____
Promotion Include costs of mailings, postage, special hats, or T-shirts.	_____	_____
Contingency Allow for any unexpected expenditures, such as a vehicle breakdown necessitating another overnight stay. Refund at the end of trip if not used.	_____	_____
Total	_____	_____

TOUR AND ACTIVITY PLAN

Date _____

❑ Pack ❑ Troop/team ❑ Crew/Ship ❑ Contingent unit/crew

Unit No. _____ Chartered organization _____

Council name/No. _____/_____

District _____

Description of tour or activity _____

From (city and state) _____ to _____

Dates _____ to _____ Total days _____

For office use

Tour and activity plan No. _____

Date received _____

Date reviewed _____

Council stamp/signatures

Itinerary: It is required that the following information be provided for *each day* of the tour. (Note: Speed or excessive daily mileage increases the possibility of accidents.) Attach an additional page if more space is required. Include detailed information on campsites, routes, and float plans, and include maps for wilderness travel as required by the local council.

Date	Travel		Mileage	Overnight stopping place (Check if reservations are cleared.)	✔
	From	To			

Type of trip: ❑ Day trip ❑ Short-term camp (less than 72 hours) ❑ Other (OA Weekend, etc.) _____

❑ Long-term camp (longer than 72 hours) ❑ High-adventure activities ❑ High-adventure base _____

Party will consist of (number):	Party will travel by (check all that apply):
____ Youth—male ____ Youth—female	❑ Car ❑ Bus ❑ Train ❑ Plane ❑ Van ❑ Boat
____ Adults—male ____ Adults—female	❑ Other _____

Leadership and Youth Protection Training: Boy Scouts of America policy requires at least two adult leaders on all BSA activities. Coed Venturing crews must have both male and female leaders older than 21 for overnight activities. All registered adults must have completed **BSA Youth Protection training**. At least one registered adult who has completed BSA Youth Protection training must be present at all events and activities. Youth Protection training is valid for two years from the date completed.

Adult leader responsible for this group (must be at least 21 years old):

Name _____ Age _____ Scouting position _____

Address _____ Member No. _____

City _____ State _____ Zip code _____

Phone _____ Email _____ Youth Protection training date _____

Assistant adult leader name(s) (minimum age 18, or 21 for Venturing crews):

Name _____ Age _____ Scouting position _____

Address _____ Member No. _____

City _____ State _____ Zip code _____

Phone _____ Email _____ Youth Protection training date _____

Attach a list with additional names and information as outlined above.

❑ Our travel equipment will include a first-aid kit and a roadside emergency kit.

❑ The group will have in possession an **Annual Health and Medical Record** for every participant.

We certify that appropriate planning has been conducted using the **Sweet 16 of BSA Safety**, qualified and trained supervision is in place, **permissions** are secured, health records have been reviewed, and adult leaders have read and are in possession of a current copy of ***Guide to Safe Scouting*** and other appropriate resources. Any items needing attention will be resolved before the tour or activity date.

_____ Signature: Committee chair or chartered organization representative

_____ Signature: Adult leader

Unit single point of contact (not on tour)

Name _____ Phone _____ Email _____

Tour involves: ❑ Swimming ❑ Boating ❑ Climbing ❑ Orientation flights (attach **Flying Plan** required)
❑ Wilderness or backcountry (must carry **Wilderness Use Policy** and follow principles of **Leave No Trace**)
❑ Shooting ❑ Other (specify) _____

Activity Standards: Where swimming or boating is included in the program, **Safe Swim Defense** and/or **Safety Afloat** are to be followed. If climbing/rappelling is included, then **Climb On Safely** must be followed. At least one person must be current in CPR/AED from any recognized agency to meet **Safety Afloat** and **Climb On Safely** guidelines. At least one adult on a pack overnighter must have completed **Basic Adult Leader Outdoor Orientation (BALOO)**. At least one adult must have completed **Planning and Preparing for Hazardous Weather** training for all tours and activities. **Trek Safely** and Basic First Aid are recommended for all tours, and **Wilderness First Aid** is recommended for all backcountry tours.

Expiration date of commitment card/training (two years from completion date)

Name	Age	Youth Protection	Planning and Preparing for Hazardous Weather	BALOO (no expiration)	Climb On Safely	Safe Swim Defense	Safety Afloat

Name	Age	CPR Certification/Agency	CPR Expiration Date	First-Aid Certification/Agency	First Aid Expiration Date

Name	Age	NRA Instructor and/or RSO	
		No. _____	❑ Rifle ❑ Shotgun ❑ Pistol (Venturing only) ❑ Range Safety Officer ❑ Muzzle-loading rifle ❑ Muzzle-loading shotgun
		No. _____	❑ Rifle ❑ Shotgun ❑ Pistol (Venturing only) ❑ Range Safety Officer ❑ Muzzle-loading rifle ❑ Muzzle-loading shotgun

Unauthorized and Restricted Activities: The BSA's general liability insurance policy provides coverage for bodily injury or property damage that arises out of an official Scouting activity as defined by the ***Guide to Safe Scouting.*** Volunteers, units, chartered organizations, and local councils that engage in unauthorized activities are jeopardizing their insurance coverage. PLEASE DO NOT PUT YOURSELF AT RISK.

INSURANCE

All vehicles MUST be covered by a liability and property damage insurance policy. The amount of this coverage must meet or exceed the insurance requirement of the state in which the vehicle is licensed and comply with or exceed the requirements of the country of destination for travel outside the United States. It is recommended, however, that coverage limits are a $100,000 combined single limit. Any vehicle designed to carry 10 or more passengers is required to have a $500,000 combined single limit. In the case of rented vehicles, the requirement of coverage limits can be met by combining the limits of personal coverage carried by the driver with coverage carried by the owner of the rented vehicle.

If the vehicle to be used is designed to carry more than 15 people (including the driver), the driver must have a valid commercial driver's license (CDL). In some states (California, for example), this policy applies to drivers of vehicles designed to carry 10 or more people.

All vehicles used in travel outside the United States must carry a public liability and property damage liability insurance policy that complies with or exceeds the requirements of that country. Attach an additional page if more space is required.

Name _____ CDL expires _____

Name _____ CDL expires _____

MAKE	MODEL	YEAR	NUMBER OF SAFETY BELTS	DRIVER/OWNER	VALID DRIVER'S LICENSE (Y or N)	LIABILITY INSURANCE COVERAGE
						Combined Single Limit

Acknowledgments

Many people were responsible for helping to develop and create these new program features. In particular, the Boy Scouts of America is grateful to the Program Features Task Force:

Chairman Jim Virgin, Vancouver, Washington, instructor, Northwest Adventure Education

Maggie Belli, Gastonia, North Carolina, 2006–2007 national Venturing president

Mathew McGroaty, Las Vegas, Nevada, 2009–2010 national Venturing president

John Washburn, Atlanta, Georgia, 2008–2009 Southern Region Venturing president

Brent Uberty, Salt Lake City, Utah, 2011–2012 Western Region Venturing president

Josh Kirby, Casper, Wyoming, national BSA Youth Development Committee

Wayne Huddleston, Papillion, Nebraska, national BSA Youth Development Committee

Tom Mann, Tampa, Florida, Southern Region Venturing coordinator, Area 4

Mark Ray, Louisville, Kentucky, freelance writer and editor

We are grateful to the following content providers, who helped develop the individual program features.

Archery: Joe Mallicoat, Vancouver, Washington, proprietor, Archery World

Backpacking: Mark Ray, Louisville, Kentucky, writer

Citizenship: Jillian Infusino, Whittier, California, 2014-2015 national Venturing vice president; Kendra Virgin, Vancouver, Washington

Engineering: Ed Wolf, San Francisco, California, product manager, Facebook

Fishing: Ben Jelsema, Clermont, Florida, BSA Fishing Task Force chairman

Fitness and Nutrition: Ashely Clinton, Vancouver, Washington, Certified Personal Trainer

Living History: Steve Sullivan, Vancouver, Washington; Bryan Huffman, Hillsboro, Oregon, Society for Creative Anachronism; Steve Huffman, Hillsboro, Oregon

Mathematics: Ed Wolf, San Francisco, California, product manager, Facebook

Mentoring: Brent Uberty, Salt Lake City, Utah, 2011-2012 Western Region Venturing president; Kendra Virgin, Vancouver, Washington; Jim Virgin, Vancouver, Washington, BSA Youth Development Committee member

Music: Scott Winks, Vancouver, Washington, music educator

Orienteering: Mark Ray, Louisville, Kentucky, writer

Scuba Diving: Brad Smith, Rancho Santa Margarita, California, PADI training manager; Jim Virgin, Vancouver, Washington, PADI Dive Master/Public Safety Diver

Soccer: Jeremy Oyen, Renton, Washington

Special Needs Awareness: Tony Mei, Novato, California

Wilderness Survival: Robert Newton, Niceville, Florida

Wildlife Management: Nick Dannemiller, Fort Collins, Colorado, 2014 Order of the Arrow national chief

Cover Photo and Illustration Credits

Scuba divers, BSA/Ron Kuenstler; *archer,* BSA file; *Lincoln Memorial,* BSA file; *bugler,* BSA file

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PROGRAM FEATURES FOR TROOPS, TEAMS, AND CREWS

A Guide to Program Planning

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Key

= Outdoor program features
= Sports program features
= Health and safety program features
= Citizenship and personal development program features
= STEM program features
= Arts and hobbies program features

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