

### 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 program feature 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 a beginner, 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 during your planning meetings when choosing archery as your program feature.

- 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 BSA's 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 on-site 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:

- Sharing their expertise
- Providing transportation and supervision for the main event
- Providing materials for the different games and activities
- Mentoring Scouts as they work on advancements
- Maintaining current Youth Protection certification, which is required of all adults providing transportation for or participating in outings.

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

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** 

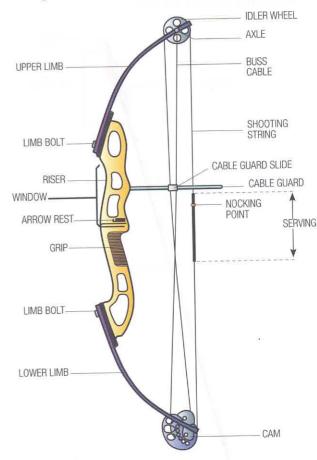
- Keep all arrows in their quivers until ready to shoot.
- The best way to transport an arrow safely is in its quiver. If you must carry arrows in your hands, hold them securely with both hands around all of the arrows and with your palms facing down.
- Be sure the area around and beyond your target 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 tar-

get, 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.

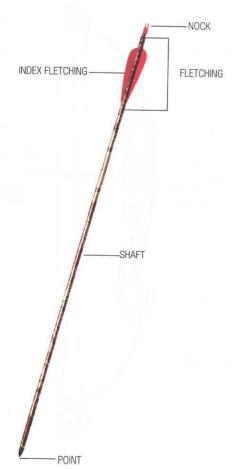
A compound bow has a system of strings and cables connected to cams (pulleys) of various designs. When the bowstring is drawn back, the cams multiply the force the archer exerts on the bow, thus making the bow easier to hold and aim and storing more energy. When a compound bow is shot, the arrow is aided 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 blackand-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**

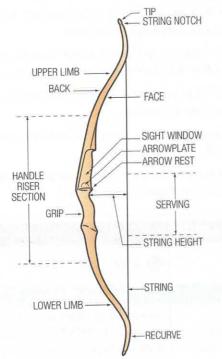
#### Parts of a Bow Relay

**Equipment:** Several bows of different types, blindfolds

How to play: 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 has placed their hand. They then return 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

How to play: Each team forms a circle. Next, each member reaches across with their right hand

and takes someone else's right hand. Then, each member does the same with their left hand, but they 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.

How to play: 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

How to play: Assemble all players in a single line. To start the game, a leader acts as "Granny." Granny stands 20 yards in front, with their back toward the group. The Scouts try to sneak up on Granny without being seen. Granny counts to themselves from 1 to any number up to 30. At any point they wish, they turn around and try 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

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 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

*		week   Date		THE RESERVE OF THE PARTY OF THE
ACTIVITY		DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before	e 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 Cerer	nony	Flag presentation Oath and Law Uniform inspection		7 p.m.
Group Instruct	ion	Review the range safety rules found in the Archery merit badge pamphlet.		7:10 p.m.
Skills Instructi 30 minutes	on 🌘	<ul> <li>Learn the parts of a recurve bow.</li> <li>Practice stringing a bow using a cord stringer.</li> </ul>	THE REAL PROPERTY.	7:30 p.m.
	<ul> <li>Learn the parts of a recurve bow and a compound bow.</li> <li>Practice stringing a bow using a cord stringer and a box stringer.</li> </ul>			
	<b>*</b>	<ul> <li>Learn the parts of a recurve bow, a compound bow, and a crossbow.</li> <li>Practice stringing a bow using a cord stringer and a box stringer.</li> </ul>		
Breakout Grou 15 minutes	ups	<ul> <li>New members practice basic Scout skills.</li> <li>Review the requirements for the Archery merit badge.</li> <li>Review the last main event and discuss what could have made it better.</li> </ul>		8 p.m.
Game 10 minutes		Play Parts of a Bow Relay (described earlier).	<u> </u>	8:15 p.m.
Closing 5 minutes		Announcements Leader's minute Closing		8:25 p.m.
A ROMANA		Total 90 minutes of meeting		
After the Mee	eting	Leadership team reviews plans for the next meeting and for the main event.		

<sup>\*</sup>All times are suggested.



# ARCHERY Meeting Plan: Arrows



### Week 2 Date

	Week 2 Date		-dillia.
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	<ul> <li>Learn about different arrow types.</li> <li>Learn how to properly nock an arrow on different bows.</li> <li>Discuss cracks and splinters on arrows.</li> <li>Learn to determine proper arrow length.</li> </ul>	hodsi	7:15 p.m.
	<ul> <li>Review the above information.</li> <li>Learn the difference between wooden, glass, aluminum, and carbon arrow shafts.</li> <li>Discuss different arrow problems and what to do if one occurs.</li> <li>Learn how to properly make an arrow.</li> </ul>		
•	<ul> <li>Review the above information.</li> <li>Learn to identify different arrows and different fletchings.</li> <li>Learn how to properly nock an arrow, make different fletchings, and use different arrow rests.</li> </ul>		Hecotom
Breakout Groups 15 minutes	<ul><li>Begin planning for participation in the main event.</li><li>Work on advancement requirements as needed.</li></ul>		8 p.m.
Game 10 minutes	Play the Maze (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing	AND THE	8:25 p.m.
After the Mastin a	Total 90 minutes of meeting	NO STATE	
After the Meeting 5 minutes	Leadership team reviews plans for the next meeting and for the main event.		

<sup>\*</sup>All times are suggested.



# ARCHERY Meeting Plan: Fundamentals of Shooting



### Week 3 Date\_\_\_\_\_

	Week 3 Date	Name and Address of the Owner, where	
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 <i>Archery</i> merit badge pamphlet.		7:10 p.m.
Skills Instruction 25 minutes	<ul> <li>Learn to determine eye dominance.</li> <li>Learn the following terms: cast, draw weight, string height (fistmele), aiming, spine, mechanical release, freestyle, and barebow.</li> </ul>	mulai	7:35 p.m.
	Review the above information.     Help newer archers determine eye dominance.		
•	<ul> <li>Review the above information.</li> <li>Discuss ways to improve shooting technique.</li> </ul>		
Breakout Groups 15 minutes	<ul> <li>Continue planning for participation in the main event.</li> <li>Plan outing menus as appropriate.</li> <li>Work on advancement requirements as needed.</li> </ul>		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.		

<sup>\*</sup>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	71 - 111111	7 p.m.
Group Instruction 5 minutes	Discuss importance of cleaning and properly storing bows.		7:10 p.m.
Skills Instruction 45 minutes	<ul> <li>Learn how to clean a recurve bow.</li> <li>Learn how to store bows and arrows properly.</li> </ul>		7:15 p.m.
•	<ul> <li>Learn how to clean a recurve bow, a compound bow, and a Mathews Genesis bow.</li> <li>Learn how to store bows and arrows properly.</li> </ul>		
	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.
<b>Game</b> 10 minutes	Play Granny's Footsteps (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing	. 10%	8:25 p.m.
	Total 90 minutes of meeting	Mark Addition	
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

<sup>\*</sup>All times are suggested.



# ARCHERY Main Event: Day of Archery Range Shooting



Date

Logistics Location:  Departure time:  Return time:  Duration of activity: 4 to 6 hours  Budget: Completed Approved  Camping: Duty roster Menu  Transportation: Group Self		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.	
		and the state of t	
		testently a transfer transfer to the test transfer transfer to the test transfer	
		Print Colombia	
		The second secon	
Equipment List	Targets     String maintenance supplie     Scout Basic Essentials (Re)	uiver, release, bowstringer, etc.) es/tools view the list and take what you need.) thooting Sports Manual for a complete list of equipment.	
Activity	<ol> <li>Do the following under the supervision of a qualified instructor/coach:</li> <li>Find out about several different types of bows and arrows and learn their parts and functions.</li> <li>Review "Safety First" safety rules that apply to archery.</li> <li>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.)</li> <li>Learn the fundamentals of archery: stance, posture, grip, drawing, back tension, anchor-point, aiming, and execution.</li> </ol>		
Safety	<ul> <li>Always follow the policies in the <i>Guide to Safe Scouting</i> and the BSA's <i>National Shooting Sports Manual</i>. 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.</li> <li>Two-deep adult leadership is required for all activities.</li> </ul>		
		ites	

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:		Challenging (Tier II)  Participate in a local archery tournament or league to learn more advanced skills. After the basic skills have been learned, the grapher is ready to proper in the 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		
Duration of activity: Overnig	ght	to become competitive in the sport. With proper instruction and practical application, Scouts		
Budget: Completed	Approved	can hone their skills to prepare for a local archery tournament or league.		
Camping: Duty roster	Menu	and the second s		
Transportation: Group	Self			
Equipment List	<ul> <li>Properly fitted bows</li> <li>Properly fitted arrows</li> <li>Accessories (arm guard, quelease, bowstringer, etc.)</li> <li>Targets</li> <li>String maintenance supplied</li> </ul>	Water Refer to the BSA's National Shooting Sports		
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	the person in charge. The raparticipants and bystanders archery shooting.	n the Guide to Safe Scouting and the BSA's National ne range officer or range master on duty serves as ange master is there to help ensure the safety of all is and to ensure the range is a safe environment for		
MOVEM FIRE TO SERVE	Two-deep adult leadership			
	Note			

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			
Equipment List	<ul> <li>Targets</li> <li>String maintenance suppl</li> <li>Scout Basic Essentials (R</li> <li>Camping gear and food, a</li> <li>Water</li> <li>Instructor manuals as and</li> </ul>	eview the list and take what you need.) as appropriate	
Activity	<ul> <li>The NFAA (National Field Archery Association)/USAA (USA Archery) coach certification program requires instruction by a higher-level coach.</li> <li>Identify an appropriate instructor/coach found through your state's archery association.</li> <li>Participate in and complete the certification course.</li> <li>Set up and run a fundamentals course for beginning archers.</li> </ul>		
Safety	<ul> <li>Always follow the policies in the <i>Guide to Safe Scouting</i> and the BSA's <i>National Shooting Sports Manual</i>. 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.</li> <li>Two-deep adult leadership is required for all activities.</li> </ul>		
	N	otes	

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.



#### **RESOURCES AND REFERENCES**

#### Books

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

Adams, John. *Archery (Know the Sport)*. Stackpole Books, 1996.

Boga, Steven. *Archery (Backyard Games)*. Stackpole Books, 1997.

Camera, Anthony. Shooting the Stickbow: A Practical Approach to Classical Archery. Virtualbookworm.com Publishing, 2010.

Fadala, Sam. *Traditional Archery.* Stackpole Books, 1999.

Hamlett-Wood, Michael. Field Archery: A Complete Guide. Robert Hale Ltd., 2002.

Haywood, Kathleen M., and Catherine F. Lewis. *Archery: Steps to Success*, 2nd ed. Human Kinetics, 1996.

Human Kinetics. *Archery Fundamentals* (Sports Fundamentals Series). Human Kinetics, 2004.

Sapp, Rick. The Ultimate Guide to Traditional Archery. Skyhorse Publishing, 2013

United States Olympic Committee. A Basic Guide to Archery, 2nd ed. Griffin, 1997.

USA Archery. Archery. Human Kinetics, 2012.

Wallentine, Douglas. *Making Indian Bows and Arrows, the Old Way.* Eagle's View, 1988.

Wise, Larry. Bow and Arrow: The Comprehensive Guide to Equipment, Technique, and Competition. Stackpole Books, 1992.

#### **Organizations and Websites**

#### **Archery Focus Magazine**

Website: https://archeryfocusmagazine.com/

#### International Bowhunting Organization

Website: www.ibo.net

#### National Field Archery Association

Website: www.nfaausa.org

#### **USA Archery**

Website: www.usarchery.org

#### World Archery

Website: www.worldarchery.org

#### **Photo and Illustration Credits**

Pages 17-1 (archer, BSA/Scott Markewitz; target and arrows, Shutterstock.com/©Sashkin), 17-3 and 17-5 (illustrations, BSA/John McDearmon), and 17-4 (BSA file)

#### Acknowledgments

We are grateful to Joe Mallicoat, Vancouver, Washington, who helped develop the Archery program feature.