

BSA National Shooting Sports Manual Updates—

November 2013

Following are changes, updates, and corrections to the current *Boy Scouts of America National Shooting Sports Manual*. Please refer to it and this document until the 2014 *National Shooting Sports Manual* is published. You can purchase a manual from Supply, and it is also available online at www.scouting.org/outdoorprogram under the Shooting Sports tab. Please review this information and share the updates with your council's shooting sports committee.

Introduction, page 3

This manual contains all BSA-approved shooting sports activities and must be adhered to. No other shooting sports are authorized at this time. Approved firearms, ranges, qualified supervision, training requirements, targets, and ammunition information is included.

Table of Contents

Section V

Changed to “BB Guns, Archery, and Other Shooting Sports,” as this section contains information for all levels of Scouting.

Chapter 12

Now titled “Section VI—Other Shooting Sports and Resources for Cub Scouts, Boy Scouts, Venturers, Varsity Scouts, and Sea Scouts,” as this section contains information for all levels of

Scouting. An additional section on the use of tomahawks and cannon regulations has been added to this chapter.

Appendixes

Information about the use of private property ranges; a link to the private property approval form; an appendix for unauthorized activities; and an appendix for Cub Scout and Webelos Scout shooting activities, including a belt loop program and a pin event, have been added.

Chapter 1

“Chief Instructor” has been corrected to read “NRA Instructor” on page 9, and on page 10, “Assistant Instructors” has been corrected to read “NRA Assistant Instructors.” The NRA Assistant Instructors can assist the NRA Instructor, but this assistance does not include running a live firing line.

Five Levels of Shooting Activities, pages 11–40

“Ammunition” section

Added:

Reloading and the use of reloaded ammunition are not approved for BSA programs.

“Range” section

Added:

Note that if using private property for the range location, you must follow the BSA private property range approval process which can be found in the appendix. This

information can also be found at:

www.scouting.org/sitecore/content/home/outdoorprogram/shootingsports.aspx

“Training” section

Previously, the requirement of earning the Rifle merit badge was removed. Added:

The Scout must participate in the BSA 30-minute safety briefing, NRA FIRST Steps Rifle Orientation, or the NRA Basic Rifle Shooting course, depending on the training requirement for the level of shooting that is being offered.

“Level 2: Rifle Open Shooting Experience>Rifles>Boy Scouts,” page 12

Change to:

.22-caliber rimfire, bolt-action rifles. Either a breech-loading, single-shot, bolt-action rifle or a repeater bolt-action rifle with a box magazine can be used. Tubular or high-capacity magazines are not allowed. If magazines are used, the range commands must include “magazines out after firing all rounds” to ensure the firing line is safe after all shots are fired. This now means that a Scout can load more than one round directly into the box magazine to shoot. The trigger pull will be 3 pounds.

“Ratio,” page 12

Change to:

One NRA range safety officer for eight shooters. One NRA rifle instructor to eight shooters while firing.

“Level 4: Rifle Competitive Level>Rifles,” page 14

Change to:

- Boy Scouts, Venturers, and Sea Scouts: .177-caliber air rifle with a minimum 2.5 trigger pull; open, scope, or dot sights; air, CO₂, or pre-charged pneumatic.
- Boy Scouts: .22-caliber rimfire, bolt-action rifles. Either a breech-loading, single-shot, bolt-action rifle or a repeater bolt-action rifle with a box magazine can be used. Tubular or high-capacity magazines are not allowed. If magazines are used, the range commands must include “magazines out after firing all rounds” to ensure firing line is safe after all shots are fired. This now means that a Scout can load more than one round directly into the box magazine and shoot. The trigger pull will be 3 pounds.
- Venturers and Sea Scouts: Any cartridge-firing rifle with open, scope, or dot sights. Rifles will meet the requirements for the conventional and international rifle shooting competitive programs.

“Level 2: Shotgun Open Shooting Experience>Training,” pages 17–19

Previously, the requirement of earning the Shotgun merit badge was removed. This has been changed to read as follows:

The Scout must participate in the BSA 30-Minute Safety Briefing, NRA FIRST Steps for Shotgun Orientation, or NRA Basic Shotgun Shooting course, depending on the training required for the level the Scout is pursuing.

“Level 4: Shotgun Competitive Level Program,” page 19

Changed to:

Shotguns. Youth- and adult-sized gas-operated semi-automatic shotguns are recommended. It is recommended that a 20-, 16-, or 12-gauge semi-automatic shotgun be used. Shotguns will meet the requirements for the conventional and international shotgun shooting competitive programs.

Pages 26–38—Under the muzzleloading firearm descriptions, all references to flintlocks has been removed, as using flintlock muzzleloaders is not BSA-approved. See page 52 in the manual for more information regarding muzzleloaders.

Page 43—The paragraph headed “Cowboy Action Shooting Events” has been removed, as cowboy action shooting is not BSA-approved.

“Cub Scout BB Gun>Target,” page 51

“Cub Scout Archery>Target,” page 52

Add:

Animal, zombie, and human form silhouettes are not approved for Cub Scout use.

For Boy Scouts, Venturers, Varsity Scouts, and Sea Scouts, the following statement has been added to the target descriptions:

Boy Scouts, Varsity Scouts, Venturers, and Sea Scouts are allowed to use tasteful, appropriate animal silhouette targets (paper and 3-D targets) for use with archery and all

firearms approved for their use. Appropriate animal silhouettes include wild game species that are normally hunted. Human form and zombie silhouette targets are not approved for use.

Note that throughout Chapter 5, the definition of a Boy Scout rifle has been changed to read as above for a .22-caliber rifle, and the statement for ammunition and animal silhouette targets also has been changed to read as above. All reference to flintlock muzzleloaders also has been removed from this chapter.

Chapter 6: Safety, page 59–60

Added to the first paragraph:

Except for law enforcement officers required to carry firearms within their jurisdictions, personal firearms shall not be brought on camping, hiking, backpacking, or other Scouting activities, except those specifically planned for target shooting that are under the supervision of a currently certified BSA National Shooting Sports Director or a National Rifle Association Firearms Instructor. Note that approval must be given prior to the event.

Added to “*Guide to Safe Scouting*”:

A Tour and Activity Plan must be submitted for council review when conducting shooting sports activities that are not held at a council camp range and that are separate from council or district events.

Under “National Camping Standards,” first sentence changed to read:

Refer to the current National Camp Accreditation Program for summer camp operation and management procedures.

Section V, page 69

Title changed to:

BB Gun, Archery, and Other Shooting Sports

Chapter 9: Introduction, page 71

First paragraph changed to:

Archery and BB gun shooting for Cub Scouts and Webelos Scouts are restricted to day camps, Cub Scout/Webelos Scout resident camps, council-managed family camping programs, or to council or district activities held on or off BSA property where there are currently trained BSA shooting sports range masters and all standards for BSA shooting sports are enforced. Archery and BB gun shooting for Cub Scouts and Webelos Scouts are not to be done at the pack or unit level.

Chapter 10: Archery, page 73–74

“Training Archery Range Masters, Section I, Item C-2” changed to:

Review how to string and unstring a bow, and have the participants demonstrate this.

“Training Archery Range Masters, Section I, Item D” changed to:

Range Layout, page 79—This procedure is to be taught on the archery range. Review range layout, safety fencing, backstop, entryway, range flag, target spacing, waiting line, shooting line, and bow racks and quivers.

“Cub Scout Archery Training” changed to “Cub Scout Archery Training—Youth”

“Safety Guidelines, No. 4” changed to:

Be sure to include all of the safety guidelines and the proper whistle codes.

Chapter 11: BB Gun Shooting, pages 83–84

Under “Leadership,” add:

The ratio of BB gun range masters to shooters is 1:8 on the firing line.

Under “Training BB Gun Range Masters,” add:

This training should be conducted on a BB gun range. Include a practical exercise on how to set up a BB gun range, referencing page 91 in the *National Shooting Sports Manual* for the range layout, and have the participants walk through the process of running the range.

Under “Teaching Tips,” add:

The Scouts do not have to load one BB at a time and shoot before loading another BB.

They can load at one time all the BBs they are given. Under “Cub Scout BB Gun Shooting Training for Youth,” the indication of time needed to conduct each section has

been removed, because the amount of time will vary depending on the number of Cub Scouts participating.

Chapter 12, page 95:

Change chapter title to:

Other Shooting Sports for Cub Scouts, Boy Scouts, Venturers, and Sea Scouts

Change the fourth bullet point to:

- A safe range must be provided for any activity such as catapults that involves shooting objects or water into the air.

Change the fifth bullet point to:

- A range master must supervise the range for all activities listed under “other shooting sports.”

Add to list of bullet points:

- The use of catapults or other shooting devices must be approved by the council shooting sports chair or the National Camping School shooting sports director.
- Water guns and rubber band guns must only be used to shoot at targets, and eye protection must be worn.
- Marshmallow shooters that use a straw or similar device placed in the mouth are not approved.
- See appendix for a list of additional unauthorized shooting sports activities.

Change “Ammunition” to:

For water balloons, use small, biodegradable balloons, and fill them no larger than a ping pong ball. When using a catapult or other shooting device, use a soft object no larger than the opening of a small juice can. The use of pumpkins is not approved.

The following appendix has been added:

Cub Scout and Webelos Scout BB Gun Shooting Sports

The following pages explain the different types of BB shooting programs offered at Cub Scout day camps and resident camps and at district- and council-led events.

BB Gun Community Event Shooting Program

A BB gun range can be set up at a community event, county or state fair, or other similar event.

A BB gun shooting activity allows councils and districts to promote adventure as they recruit youth to the BSA. These must be council- or district-sponsored events **only**, not pack, den, or unit events.

Youth. Minimum age: Tiger Cubs through Webelos Scouts (already registered or of joining age).

Equipment. A smoothbore, spring-piston, or air rifle that propels BBs. The barrel velocity must be a maximum of 350 feet per second.

Ammunition. BBs only

Participant safety. Eye protection is required for all individuals on the range.

Participant training/facility set up. Spend five minutes reviewing the NRA's three rules of gun safety. Guns are tethered to a table and are loaded by instructors. Youth aim at targets and fire. Bench rest position only; large bull's-eye targets with a target carrier system; resetting metallic targets, balloons, or other fun, breakable targets.

Range supervision and ratio. One BSA BB gun range master **OR** one currently certified National Camping School shooting sports director **OR** an NRA-certified rifle instructor for every eight shooters **AND** one adult supervising each Cub Scout shooter while shooting. These additional adults may be parents or legal guardians or other responsible adults.

For more information. Reference page 91 in the *National Shooting Sports Manual* for range layout and design information. One example of a temporary safety enclosure is the Crosman portable airgun range which can be found at www.crosman.com/easy/ranges.

BB Gun Open Shooting Program for Fun

Councils and districts can conduct shooting sports programs for fun and to introduce Cub Scout– and Webelos Scout–aged youth to shooting sports programs while recruiting them into Scouting. These events must be council or district events **only**, not den, pack, or unit events.

Examples. This program could be a day-at-the-range event (fun shoot), NRA Day event (contact the National Rifle Association for information on NRA Day), Winchester/NRA Marksmanship Qualification Program, Cub-oree, or district or council camp weekend shooting event. A BB gun open shooting experience could be held at a BSA facility or at a facility that has been approved by the council for district- or council-level activities. These facilities may have previously held day camps or resident camps for BSA summer camping programs.

Youth. Tiger Cubs through Webelos Scouts.

Equipment. Defined as a smoothbore, spring-piston, or air rifle propelling shot known as BBs. The barrel velocity must be a maximum of 350 feet per second.

Ammunition. BBs only

Range. A BSA-approved range. See page 91 in the *National Shooting Sports Manual* for range layout information and diagram.

Training. BSA BB gun briefing taught by a BSA range master, National Camping School shooting sports director, or an NRA-certified rifle instructor.

The NRA's three rules for safe gun handling will be taught, and the parts of a BB gun will be reviewed. See pages 85, 88, and 93 of the *National Shooting Sports Manual*.

Participant safety. Eye protection is required for all individuals on the range.

Range supervision. A BSA BB gun range master, National Camping School shooting sports director or an NRA-certified rifle instructor is to directly supervise the range, and one parent or legal guardian per shooter must be present.

Ratio. One qualified instructor for every eight shooters AND one adult for each Cub Scout while he is shooting. These additional adults can be parents or guardians.

Course. Bench rest, prone, or standing. Targets could be paper, resetting metallic targets, balloons, or other fun, breakable targets. You can also use the Winchester/NRA Marksmanship Qualification Program.

BB Gun District- or Council-Level Competitive Shooting Sports Program

Purpose. Retention of Cub Scouts and Webelos Scouts by offering progressive, year-round shooting sports programs within a district and/or council. The program could begin with competition at a district level with the packs competing against each other, and the top pack in the district could advance to the finals competing against other packs at a council-wide event. This event must be council- or district-sponsored **only**, not a den, pack, or unit event.

Examples. Ongoing programs include BB gun leagues sponsored by the district or council or a weekend BB gun event where the Cub Scouts and Webelos Scouts are invited to participate in a shooting event in which Scouts shoot for high score, best shot, etc.

Youth. Minimum age: Tiger Cub– through Webelos Scout–aged youth (already registered or of joining age)

BB guns. Smoothbore, spring-piston, or air rifle propelling shot known as BBs. The barrel velocity is 350 feet per second maximum.

Ammunition. BBs only.

Range. See page 91 in the *National Shooting Sports Manual* for range layout information and diagram.

Training. BSA BB gun briefing taught by range master, National Camping School shooting sports director, or an NRA-certified rifle instructor. See page 84 of the *National Shooting Sports Manual* for acceptable shooting positions.

Safety. Eye protection is required while using BB guns or air rifles.

Range supervision. A BSA BB gun range master, National Camping School shooting sports director, or an NRA-certified rifle instructor must directly supervise the range.

Ratio. One qualified instructor for every eight shooters.

Course. The format can be similar to a pinewood derby competition. A set number of weeks would be established, allowing the Scouts to shoot once a week and keep score. Scouts first shoot on a district level, with Scouts from different packs competing against each other to determine the top three shooters in the district. The top scorers would then move on to a final competition at the council level, and the top three would be awarded a council trophy.

District- or Council-Operated Round-Robin to Teach the Shooting Sports Belt Loop Program

Belt Loop Program—Station 1 of 3

Learning objectives: To teach youth safe gun use and handling practices. When training youth to shoot, it is necessary to have proper equipment, secure and safe ranges, and clear safety instruction. Gun safety is a simple but continuous process. Youth must first learn about safe gun handling, and those skills are developed through practice. The most important safety element is attitude. All the safety knowledge and skills are of little value unless they are used properly. Being safe means consciously keeping a BB gun under control and *always* pointed in a safe direction. Before handling any gun, a Scout must always get permission from a parent or guardian. If this is his first BB gun shooting experience, he should sit down with an adult and discuss under what circumstances the gun can be handled, and he must understand that the BB gun is not a toy.

Requirement No. 1. Explain the rules for safe BB gun shooting that you have learned from your adult leader or adult partner.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth, plus the participant’s parent or legal guardian.

Location. This session can be taught under a shelter or at a campsite location.

Training aids. BB gun and posters showing the NRA’s three rules of gun safety and parts of a BB gun

Lesson content. Explain the following to the Cub Scouts.

Before using a gun:

- Always get permission from a parent or guardian.
- Always keep the gun pointed in a safe direction.
- Always have an adult present when you handle a gun.
- Know how the gun works and how to use it.
- Always be sure of your target and what is beyond the target.
- Always wear eye protection.
- Never reuse BBs.

Following are the three basic rules that apply to handling a BB gun under any circumstances:

1. Always keep the gun pointed in a safe direction. This is the primary rule of gun safety.

“Safe direction” means the gun is pointed so that even if it were to go off, it would not cause injury or damage. The key to this rule is to control where the muzzle, or front end of the barrel, is pointed at all times. Common sense dictates the safest direction depending on circumstances.

2. Always keep your finger off the trigger until you are ready to shoot. When holding a gun, rest your finger along the side of the gun or trigger guard. Until you are actually ready to fire, do not touch the trigger.

3. Always keep the gun unloaded until you are ready to use it. When you pick up a gun, carefully point it in a safe direction. Engage the safety, if possible. Then, while keeping your finger off the trigger, open the action, and look inside the chamber(s) to make sure it is clear of ammunition. If the gun has a magazine, remove it before opening the action, and make sure it is empty. If you do not know how to open the action or inspect the chamber(s), leave the gun alone, and get help from someone who does.

Safety Reminders: What should a Cub Scout do if he finds a gun?

- STOP!
- DON'T TOUCH!
- LEAVE THE AREA!
- TELL AN ADULT!

Belt Loop Program—Station 2 of 3

Learning objectives. To understand the correct techniques for shooting a BB gun safely

Requirement No. 2. Demonstrate to your leader or adult partner good BB gun shooting techniques, including eye dominance, shooting shoulder, breathing, sight alignment, trigger squeeze, and follow through.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth, plus the participant’s parent or legal guardian

Location. This session can be taught under a shelter or at a campsite location.

Training aids. BB gun and sight alignment diagrams, found on page 86 in the *National Shooting Sports Manual*; and parts of a BB gun, found on page 93 in the *National Shooting Sports Manual*. (Suggest preparing a poster showing both of these items; it can be made easily by enlarging diagrams in the manual.)

Lesson Content—BB Gun Shooting Basics

Eye dominance. Before shooting a gun, the participants should determine which eye is dominant. Just as people are either right- or left-handed, one eye is more dominant than the other. Discovering which eye a shooter favors is important because it could determine on which side the gun is held. To find which eye is dominant, have participants extend both arms in front of them and form a small hole with the thumb and index finger of each hand. Instruct participants to look at a distant object through the opening, and then pull their hands back to their faces. The eye that is in line with the object is dominant.

Shooting shoulder. It is recommended that a shooter use the shoulder that is on the same side of the body as the dominant eye. If the right eye is dominant, place the firearm against the right shoulder. If the left eye is dominant, use the left shoulder.

Breathing. When shooting, stop breathing before firing a shot. Breathing causes the body to move and makes it difficult to maintain a steady sight picture. Before firing, relax and get comfortable. Then exhale and stop breathing. This technique will help shooters aim by reducing the body and rifle movement in relation to the target. Do not stop breathing for longer than eight to 10 seconds while aiming at the target. If you are not able to shoot within that time, stop, take a breath or two, and repeat the process.

Sight alignment. The shooter must learn proper sight alignment. This is the relationship of the front and rear sights to the eye. The shooter's dominant eye must be lined up with the front and rear sights, and the sights must be positioned so the front sight device is aligned properly with

the rear sight. Proper sight alignment is a key to accurate shooting. Any misalignment of the front sight with the rear sight introduces an angular error that is multiplied with distance. A correct sight picture is obtained by achieving the proper alignment and then putting the aligned sights into their proper relationship with the target.

Trigger squeeze. Trigger squeeze is the term used to explain how pressure is applied to the trigger. Some other terms commonly used are trigger pull, trigger control, trigger press, and trigger movement. While all these terms are correct, the preferred term is trigger squeeze because it accurately describes the smooth application of pressure required. When ready to begin squeezing the trigger, the index finger should be on the trigger so the trigger is about halfway between the tip of the finger and the first joint. The trigger must be squeezed straight back in a smooth, continuous manner without disturbing the sight alignment. Once trigger squeeze has begun, keep squeezing smoothly and continuously—do not speed up, slow down, or apply pressure in a start-and-stop manner. Use the same type of pressure that would be used to squeeze a drop of liquid from a medicine dropper—a gradual, steady application of pressure until the drop finally falls. Just as it would be impossible to predict the instant the drop will fall, it is impossible to predict the precise instant the gun will fire. Each shot should come as a surprise so that you don't know or feel the exact moment the shot actually takes place. For best results, trigger squeeze and sight alignment must be done simultaneously.

Follow through. The shooter must also master proper follow-through. Follow through means to continue to do everything that was being done at the time the shot was fired. In other words, keep aiming until the BB hits the target. The idea is to prevent any unnecessary movement before the

projectile leaves the barrel. Because an air gun takes longer to send a projectile out of the barrel, proper follow-through is particularly important.

Belt Loop Program—Station 3 of 3

Learning objectives. To practice shooting a BB gun safely.

Requirement No. 3. Practice shooting at your district or council camp for the time allowed.

Length. 20–30 minutes

Youth in session. 16 youth maximum

Range supervision. One or more BSA BB gun range masters, BSA shooting sports directors, or NRA rifle instructors

Ratio of instructor to students. One BSA BB gun range master, BSA shooting sports director, or NRA rifle instructor for each group of eight shooters

Personnel needed. One or two staff adults or Venturing- or Boy Scout–age youth, plus Cub Scout parents to help on the range. **These people are not qualified to run the range.**

Location. This session must be taught on the range.

Training aids. BB gun, sight alignment diagrams which can be found on page 86 in the *National Shooting Sports Manual*, and a poster made by enlarging the diagram on page 93 in the manual.

Lesson content. Range commands: The list below is an example of range commands to be used while running the range.

Basic shooting activity. The following is an example of how to run the shooting activity: The activity covers many of the basic fundamentals required for shooting a BB gun. Pair Cub Scouts and adults as shooters and coaches.

1. Greet the participants.
2. Bring the participants onto the range.
3. Show the gun and say, “This is a BB gun.”
4. Point to the barrel and say, “This is the barrel.”
5. Point to the muzzle and say, “This is the muzzle. It is the end the BB shoots out. Always keep the gun pointed in a safe direction.”
6. Point to the action and say, “This is the action. It has the trigger—the part you squeeze to shoot. Always keep your finger off the trigger until you are ready to shoot.”
7. Say, “The action also has the chamber where you put the BB to load the gun. Always keep the gun unloaded until ready to use.”
8. Point to the stock and say, “This is the stock.” Then demonstrate how to hold the gun: Put the butt of the stock against your shoulder and to your cheek, hold the grip with the hand of the same arm, keeping your finger off the trigger and pointed in the same safe direction as the gun. Hold the fore end with your other hand.
9. Say, “You will use the free-arm standing position like this.” Demonstrate the position that is recommended for your range.
10. Have everyone on the range put on eye protection, either safety glasses or goggles.

11. Say, "Shooters, please move forward at my command." Then give the command, "On the firing line."
12. Assume the shooting position.
13. Have shooters pick up their guns, keeping them pointed in a safe direction down range.
14. Have shooters again assume the shooting position, this time with the gun, and look through the sights. Explain how the sights are used.
15. Once all shooters know how to assume the shooting position and how to properly hold the gun, explain and demonstrate how to charge the gun.
16. Have shooters load BBs into the chamber. (Explain further.) Close and ready the gun.
17. Return to your shooting position. Check that everyone can make ready and load the gun.
18. Give the command "Ready on the firing line."
19. When shooters are in the ready position, give the command, "Commence firing." Instruct shooters to shoot all shots.
20. Watch for safety issues, and help as needed.
21. Give the command, "Cease firing." Everyone is to stop shooting.
22. Give the command, "Clear all guns." Have everyone clear their guns.
23. Explain and demonstrate how to make a gun safe. Explain and demonstrate what to do with the BB gun when you are finished shooting or if cease fire is called.
24. Have shooters and coaches switch positions.
25. Repeat from step 10.

Groups may continue to rotate shooting or may exit the range.

Pin Program—Station 1 of 4

Learning objectives. To develop knowledge of the parts of a BB gun, how to load it properly and safely, and where to locate the safety mechanism

Requirement No. 1. Explain the parts of a BB gun, and demonstrate how to load it properly.

Requirement No. 10. Explain how to use the safety mechanism on a BB gun. Explain that a safety mechanism is a mechanical device and can fail; therefore, the NRA's three rules of gun safety must always be followed.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. BB gun range master and one or two staff adults or Venturing- or older Boy Scout-age youth

Location. BB gun range

Training aids. BB gun, BBs, and a poster displaying parts of a BB gun

Lesson content. Requirement No. 1: Teach the parts of a BB gun using a BB gun and a poster with the parts labeled. For an example, see the *National Shooting Sports Manual*. Demonstrate how to open and close the action safely and how to load the BBs into the gun. Explain that only the correct ammunition for the BB gun must be used.

Pin Program—Station 2 of 4

Learning objectives. Learn how to make a target.

Requirement No. 8. Help make a target for the camp BB gun shooting range.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth.

Location: This can be taught under a shelter or at a campsite location.

Training aids: BB gun targets and paper plates.

Lesson content. Using paper plates and black magic markers, have the Cub Scouts make BB gun targets. Prepare various sizes of round patterns (for instance, out of cardboard) to help the Cub Scouts make the targets.

Pin Program—Station 3 of 4

Learning objectives. To learn the correct scoring techniques for target BB gun shooting

Requirement No. 4. Learn the correct scoring techniques for target BB gun shooting.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout-age youth.

Location. This lesson can be taught under a shelter or at a campsite location.

Training aids. BB gun targets

Lesson content—scoring. Hits outside the scoring rings have a value of zero. Hits completely or partially inside a scoring ring or that touch a scoring ring receive that ring's value.

An example of archery scoring is shown below:



Hits: One in X, two in or touching the 10 ring, and two in the 9 ring.

The X ring scores the maximum 10 points, it also is used to break any scoring ties.

Pin Program—Station 4 of 4

Learning objectives. To show improvement in shooting skills

Requirement No. 7. Show improvement in your shooting ability with an increase in points scored.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One BB gun range master for every eight shooters and one or two staff adults and Venturing- or older Boy Scout-age youth.

Location. BB gun range

Training aids. Range safety poster

Lesson content. Cub Scouts will practice their shooting skills and show improvement in their abilities.

Challenging Pin Program—Station 1 of 5

Learning objectives. To learn the various shooting positions

Requirement No. 2. Demonstrate the shooting positions

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth

Location. This lesson can be taught under a shelter or at a campsite location.

Training aids. Posters showing the shooting positions and mats

Lesson content. Refer to the *National Shooting Sports Manual*, pages 87 and 88, and demonstrate the shooting positions described (free-arm standing, prone, kneeling, and sitting). Have the Cub Scouts learn each position.

Challenging Pin Program—Station 2 of 5

Learning objectives. To reinforce the proper range commands

Requirement No. 5. Make a poster that names and illustrates the range commands.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth.

Location. This lesson can be taught under a shelter or at a campsite location.

Training aids. A demonstration poster with range commands

Lesson content. Review a poster with the range commands clearly and simply depicted.

Challenging Pin Program—Station 3 of 5

Learning objectives. To learn what a BB gun range looks like

Requirement No. 6. Draw to scale or set up a BB gun shooting range.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth

Location. This lesson can be taught under a shelter or at a campsite location. If setting up a BB gun range, the lesson must be taught at a range.

Training aids. A demonstration poster with range layout. For a drawing of a BB gun range, reference page 91 of the *National Shooting Sports Manual*.

Lesson content. Have the Cub Scouts draw a BB gun shooting range to scale on poster board.

Challenging Pin Program—Station 4 of 5

Learning objectives. To learn how to store shooting equipment properly

Requirement No. 9. Show how to put away and store BB gun shooting equipment properly after use.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout–age youth

Location. This lesson can be taught under a shelter or at a campsite location. If BB guns are stored at a camp range, the lesson should be taught at the storage area at the range.

Training aids. BB guns and equipment

Lesson content. Explain that guns should be stored so they are not accessible to any unauthorized person. Ask for examples of what an “unauthorized person” may be. Explain that storing guns and ammunition depends on several factors including security and accessibility. Safe and secure storage means untrained individuals (especially young children) are not able to access the guns or ammunition. Ask for examples.

Challenging Pin Program—Station 5 of 5

Learning objectives. To learn the history of the BB gun

Requirement No. 11. Tell five facts about the history of BB guns.

Length. 20 minutes

Youth in session. 16 youth maximum

Personnel needed. One or two staff adults or Venturing- or older Boy Scout-age youth

Location. This lesson can be conducted under a shelter or at a campsite location.

Training aids. Print out the handout, “A Brief History of BB Guns,” found on page 83 of the *National Shooting Sports Manual*.

Lesson content. Review the history of BB guns with the Cub Scouts, and ask them to write down five facts that they learned. Share the following information:

In ancient history, blowguns began to appear in many different parts of the world. Although crude, these primitive weapons were very accurate. Bamboo or other hollowed-out wood was fashioned into a tube into which a hunter could blow, causing a projectile to shoot out the other

end. This idea was transferred into gun form in the 1500s. The bellows gun, invented around 1580, is the earliest known air-powered gun.

A few decades later, the first pneumatic (pump-up) air gun was created in France for King Henry IV. The nobility usually owned these early guns, since they were too expensive for commoners. In the late 1700s, some units of the Austrian army were equipped with air rifles. In America, records show that in the 1800s, Lewis and Clark had an air gun they used for hunting, and Native Americans called it “the smokeless thunder stick.”

In 1885 in the United States, the Markham Air Rifle Company became one of the first companies to sell BB guns. These pneumatic rifles replaced bullets with small pellets the size of ball bearings, and they became known as BBs.

A few years later, a company that sold windmills also decided to sell BB rifles. By 1895, this company had stopped producing windmills and started making air rifles full-time. Their popular BB guns became known as Daisy guns, and the company changed its name to Daisy. Daisy guns were made mostly of steel, which improved the gun’s strength and quality. The Daisy air rifle became popular very quickly, and within five years, Daisy had sold 250,000 BB guns and soon bought out all of its competition. Daisy also marketed its BB guns to youth by offering special models related to historical characters like Davy Crockett.

In 1984, the Olympic Games featured air guns for the first time. Today, BB guns are still being produced in both rifle and pistol forms and are very popular among all age groups.

The following sections, “Tomahawk Throwing,” “Cannons,” “Private Property,” and “Unauthorized Shooting Activities,” are additions to the appendix.

Tomahawk Throwing

This is a program for Boy Scouts, Varsity Scouts, Venturers, and Sea Scouts. This program is not approved for Cub Scouts or Webelos Scouts.

Overview

The purpose of this document is to give an overview of the sport of tomahawk throwing and how it can be adapted to age-appropriate levels for Scouting.

In order for this activity to comply with *Guide to Safe Scouting* standards, this document provides the following:

- History of the sport
- Governing body for the sport
- Proper equipment selection and range setup
- Standard operational procedures (age-appropriate instruction and training)
- History of the tomahawk

History

A tomahawk, also known as an ax or a 'hawk, is a type of North American ax resembling a hatchet. Loosely translated from the Powhatan word, the name “tomahawk” came into use in the 17th century. Both Native Americans and colonists used tomahawks for many everyday purposes, and also used them as weapons in hand-to-hand combat. They discovered that tomahawks could be thrown effectively as well.



A pipe tomahawk dating to the early 19th century

Early iterations of the tomahawk had heads made of stone, and eventually, iron and brass were also used. Colonists traded tomahawks with Native Americans for food and other necessities.



Tomahawk made by L.C. Hansen

Composition

A tomahawk shaft, usually made of hickory, ash, or maple, is typically less than 2 feet long. Its head weighs about 9 to 20 ounces, with a cutting edge measuring about 4 inches.

Originally, tomahawk heads were made of polished soapstone. Those used in Native American rituals were elaborately carved and usually had a pipe bowl opposite the blade that was used to

smoke tobacco, a ceremony that often sealed agreements or treaties. These two-sided tomahawk heads served as symbols of the co-existence of Native Americans and colonists: one end offered the peace pipe, the other served as a weapon.

Important to tribal chiefs, tomahawks were seen as objects of pride. They were often made of beautifully engraved silver or pewter, inlaid with turquoise or onyx, and decorated with medicine bundles to convey strength and courage or with eagle feathers earned for bravery during battle.

The Sport of Tomahawk Throwing

Tomahawk throwing is increasing in popularity in America. Historical re-enactment groups and martial arts practitioners have begun to revive tomahawk fighting techniques used during the Colonial era, and tomahawks are also used in knife-throwing competitions. Today, hand-forged tomahawks are made by craftsmen throughout the United States.



Traditionally formed tomahawk made by Steve Opperman.

Proper equipment selection and range setup

Tomahawk Styles

A variety of styles and sizes of tomahawks are available today from several manufacturers. Most craftsmen say that heads will last over a decade when properly cared for, and most favor handles made of hickory. Popular tomahawk styles include:

- French or Blackhawk—With handles about 18 inches long, and heads weighing from 12 to 24 ounces, this style of tomahawk is appropriate for all ages. Prices range from about \$21 to \$40, and replacement handles cost about \$3.



- A kiddy hawk or junior Blackhawk—A good choice for young Scouts, this style measures about 10 to 14 inches long, and its head usually weighs about 8 to 12 ounces. Prices range from \$15 to \$24, and replacement handles cost about \$2.



Target Styles:

Targets can be made in a variety of styles and from many materials.

Following are some suitable options.

- Hay bales—These targets are the cheapest to make and easiest to use. Stack three to make a wall, and attach a paper or painted target.



- Soft wood posts—Logs of pine or other soft wood or repurposed telephone poles make great targets. Dig a 24-inch deep hole, and bury the end so it is stable.

- A-frame stands—Stands can be made from 2 x 4s with ends cut at a 45-degree angle and attached like a tripod at the back. Attach a cross-brace to support the weight of the target. The best target rounds are made of palm trees, and are a minimum of 12 inches in diameter and cut 8 to 10 inches thick. Attach them to the back of the stand using heavy screws.



- H-frame stands or backboard stands—These 2 x 4 frame stands are made of plywood and hardtack to stand up to wear and tear. They can be stabilized or installed permanently by staking them to the ground.

- Target wall—Sink two 2 x 12 posts for each target, and install multiple targets or stations for group activities.

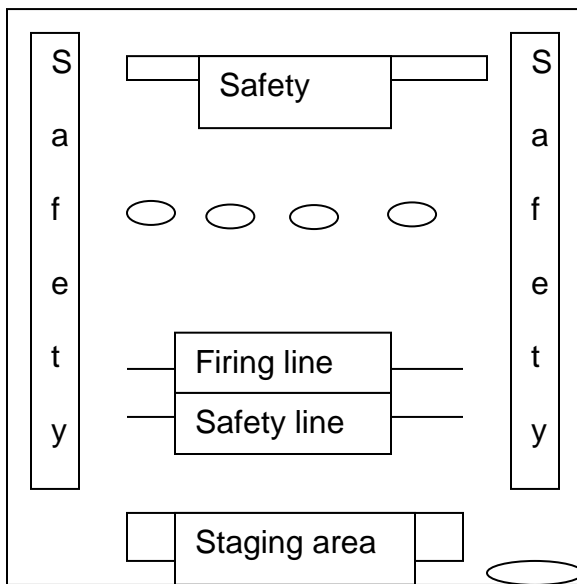


Range Set Up

All ranges must have adequate space and provide participants a clear line of sight. Each range must

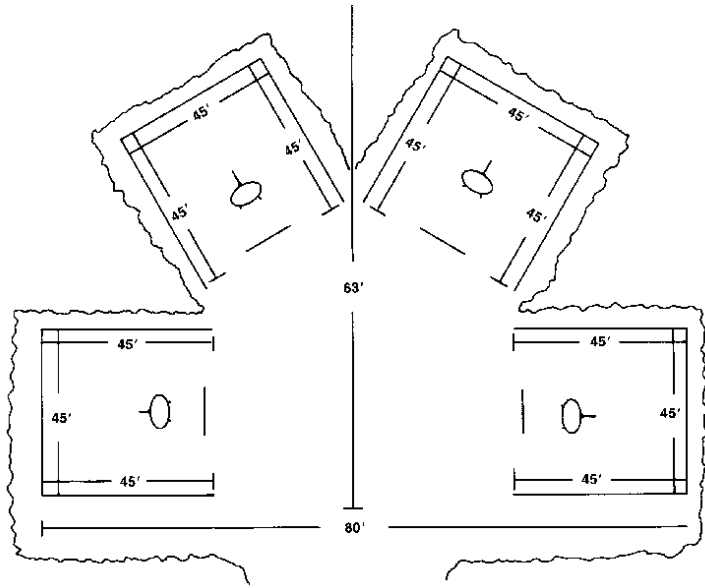
have a clearly marked perimeter with signage that alerts bystanders of potential shooting sports danger. The range must have sufficient buffers all around, with 15 to 25 feet on each side and 25 to 50 feet at the rear of the range.

Access to the range should be restricted with a clearly marked gate. The range should have a staging area where safety information and instructions can be shared. Firing and safety lines should be clearly marked and a minimum of 5 feet from each other. Safety stands or a stack of target rounds on the firing line can help designate safe observation areas. Each lane should be 5 feet wide to accommodate appropriate throwing space. The distance from the target face to the firing line is generally 15 feet, but it can be reduced to 10 feet for younger Scouts.



<http://scouts.lamb-thielen.com/data/CamporeeGuide/Camporee%20Guide.htm>

Another option is the multi-target range with the participants in the center facing out and targets set around the perimeter:



Range Master: Running the Tomahawk Range



<http://blog.scoutingmagazine.org/2011/06/02/guest-blog-how-to-safely-add-tomahawk-throwing-to-your-next-scouting-event/>

Review range safety rules

- Always stay clear of the tomahawks until instructed to do otherwise.
- Always keep the blades pointed down range.

Stances (described for right-handed throwers; reverse for lefties)

- Side-by-side stance (This stance is the safest.)
 - Feet evenly squared with the target
 - Left hand on bottom of handle
 - Right hand on top of left with thumb facing up (helps with rotation)
- Sideways (This stance is optional; ensure that the draw goes directly overhead and not to the side, which causes the tomahawk to turn.)
 - Body and feet 90 degrees from the target on dominant side

- Right hand on bottom of handle with thumb facing up

Aiming: Site the target with arm extended and tip of hawk pointed to desired spot.

Throwing

- Keep elbows and wrists locked.
- Draw tomahawk back over top of head.
- Bring it forward until initial aiming point is reached.
- Release the tomahawk.

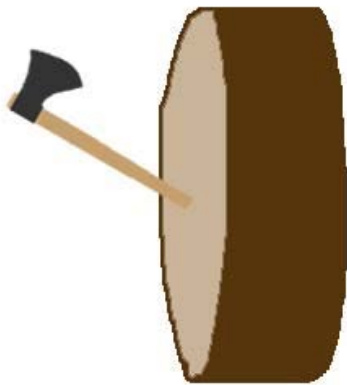
Retrieval

- Only when the range safety officer allows, walk to the target—do not run.
- Proper technique to remove tomahawks:
 - Place one hand on the target, and with the other, firmly grasp the handle of the tomahawk.
 - Push down on the handle and then pull up on the handle.
 - The tomahawk will release from the target.
- General safety during hawk removal:
 - Always remove the hawk above your head first, and drop it to the ground.
 - If you should stick both hawks, keep one hand on each during removal from target.
- Once both hawks have been removed, pick them up, and grasp the head of the hawk in the palm of the hand with blades facing away from the body.

- Return the hawks to the throwing line with the blades facing down range.

Sticking the Ax or Tomahawk

The key to sticking is consistency, which is most easily attained with an ax or tomahawk of sufficient size and weight. Throw the heaviest tomahawk possible without causing strain. For most people, a head weight of about 16 ounces works well.



Too Close



Too Far Away



Just Right

Most often, a tomahawk sticks with the handle at an angle of about 45 degrees in relation to the surface of the block. If the upper corner of the blade forms an acute angle with the top of the head, the tomahawk will penetrate deeper and is less likely to fall out. If the point is above the line of the top of the handle, the ax will still stick even if over-rotated, with the handle forming nearly a right angle with the surface of the block. If the edge of the tomahawk is curved rather

than straight, it will be more likely to stick if under-rotated, with the handle and the edge nearly parallel to the block.

Equipment Repair: Replacing Handles and Heads

If you throw tomahawks, eventually you break handles. As skill improves, breakage occurs less often. Replacing a handle is usually easy with a couple of firm strikes of a hammer, a task that's even easier when the head is secured in a vise. If your new handle won't go in far enough, tap it in lightly, then back out. The tight spots will leave marks on the wood. Remove the marks with a wood rasp, knife, sandpaper, or whatever tool you prefer, and repeat until the handle is close to position. Then seat it firmly.

To remove the head and mount it on a new handle, first saw through the handle a couple of inches below the head to provide a solid surface for pounding, and then drive the head out. The handle slot is tapered, so this task should become easier once the head begins moving out of place. However, if the head won't move, drill several holes into the top of the handle, then pound out the pieces. Alternatively, the handle can be burned out, though if the ax has been heat-treated, you must keep the edge cool while working on the handle.

Sharpening your tomahawk should be done with a file; using a sharpening stone is advisable but optional. Refer to the *Boy Scout Handbook* for more information about sharpening an ax.

Sample Tomahawk Competition Rules

From: New International Knife & Tomahawk Hall of Fame (IKTHOF)

For a four-round competition:

Adults 16 and over

Throwers compete in four rounds of three tomahawks from each of five distances, for a total of 60 tomahawks.

Each round consists of 15 tomahawks, three thrown from each distance:

- Three at one spin at a minimum distance of 3 meters;
- Three at one and a half spins from a minimum distance of 4 meters;
- Three at two spins from a minimum distance of 6 meters;
- Three at two and a half spins from a minimum distance of 7 meters;
- Three at three spins from a minimum distance of 9 meters

Maximum 300 points

Youth 12–15

Youth follow the same throwing progressions as adults, but with no minimum distance.

Maximum 300 points



*Ryan Holmston, Troop 95, Henderson, NV
Scoutingmagazine.org*

Juniors 10–11

No minimum distance for this age group.

- Handle throw—one spin
- Blade throw—1 1/2 spins
- Handle throw—two spins

Maximum 180 points

Associations:

American Knife Throwers Alliance, <http://www.aktac-usa.com/index.htm>

International Knife Throwers Hall of Fame, <http://www.ikthof.com>

In December 2002, Austin, Texas, was dubbed the Knife Throwing Capital of the World by throwers attending the Central Texas Knife and 'Hawk Championship, one of the largest throwing conventions ever held in the U.S. The competition was held at the South Austin Karate Studio, the home of the International Knife Throwers Hall of Fame.

After establishing a board of 20 professional knife throwers, Mike "Alamo" Bainton and the board established rules for professional knife and tomahawk throwing, now the standards by which knife throwing is judged. Publications such as *Guinness Book of World Records* and newspapers and magazines rely on IKTHOF to validate and assure accuracy of knife and tomahawk accomplishments in recreational and competitive knife throwing events.

For more information:

<http://artofmanliness.com/2011/08/03/how-to-throw-a-tomahawk/#comments>

<http://blog.scoutingmagazine.org/2011/06/02/guest-blog-how-to-safely-add-tomahawk-throwing-to-your-next-scouting-event/>

<http://user.xmission.com/~drudy/amm/skills/hawkman.html>

http://www.inquiry.net/outdoor/skills/beard/throw_tomahawk.htm

http://www.ehow.com/video_4941751_knife-tomahawk-throwing-competition-rules.html

<http://www.youtube.com/watch?v=M4MvB10BLfE>

http://www.ehow.com/videos-on_7481_participate-knife-tomahawk-throwing-competitions.html

Guidelines for Using Cannons

Any time a cannon or other large-bore artillery device is used for council or district events, the following guidelines must be met. These guidelines do not address shotgun or muzzleloader use; see the *Guide to Safe Scouting* for this information. Units are not authorized under any circumstances to use a cannon or any other large-bore artillery device.

Under these guidelines, all of the following requirements must be met:

- All manufacturer use recommendations and specifications must be followed.
- The type of powder used must be appropriate for the cannon or other device, and the load cannot exceed the manufacturer's recommendations or commonly accepted recommendations by firearms authorities.
- Powder must be stored according to the regulations of the Department of Alcohol, Tobacco and Firearms. See www.atf.gov for more information.
- The cannon or other device cannot be not loaded with any type of projectile.
- On an annual basis, the cannon or other device must be certified safe by a qualified gunsmith with cannon or large-bore artillery device expertise.
- The standards of the American Artillery Association must be followed. Learn more at www.cwartillery.com/marty/marty.html.

Private Property Approval for Shooting Sports by Units, Districts, and Councils

Background: Why Is This Important?

1. The council and district(s) want to conduct shooting sports at district or council events off council property.
2. The council camp ranges are not available to units during the offseason.
3. Troops and crews are too far from council camps to use ranges for weekend programs.
4. Units are currently using private property for shooting programs with no provision to ensure safety.

The BSA's National Shooting Sports Task Force and Outdoor Programs Department always recommend hosting shooting sports programs at the council camp first. Councils are encouraged to make the camp ranges available for units to use in the offseason.

Process for councils to approve private property range as venue for Scouting program:

1. Appoint a shooting sports chairman and committee for the council with district representatives on the committee.
2. Appoint a certified NRA chief range safety officer(s) to evaluate proposed private property ranges using the attached forms. Once the forms are completed, they are presented to the Shooting Sports Committee and Scout executive for approval and are to be used by local units, districts, or the council.

3. The range is approved for two years if there are no changes to the range site or approved standard operating procedures.
4. Renewal is completed following the same process—review range use, reports of accidents and near misses, and demand for the range— to determine whether it is still adequate and needed for providing program for youth.
5. The council will keep a file in one location with all applications approved or not approved as part of the council’s permanent records.

- **Permission to Enter Upon and Use Land Form**
- **Evaluation of Private Property Shooting Ranges—Private**

Property Range Evaluation Checklist

Download the BSA form 430-065, and complete it before using any private land for any kind of shooting sports. The form is available at

http://www.scouting.org/filestore/Outdoor%20Program/Shooting%20Sports/430-065_WB.pdf.

UNAUTHORIZED ACTIVITIES

The BSA National Shooting Sports Task Force has reviewed the following shooting sports activities and feels that they have no value to the mission and values of the BSA shooting sports program. There may be other activities that are not authorized even though they are not listed below. Unauthorized activities, weaponry, and ammunition include but are not limited to:

- Reloading ammunition and using reloaded ammunition
- Crossbows
- Bottle rockets
- Exploding targets of any kind
- Short-barreled rifles or short-barreled shotguns
- Destructive devices or other regulated items such as grenades
- Firearms included in the National Firearms Act
- Cannons (Their use is limited to council camp ceremonies only and must follow the BSA's guidelines for cannon use.)
- Ballistas
- Boomerangs
- Blow guns

- Anvil shooting
- Ninja weapons such as stars, spikes, and torpedoes, and activities such as shovel throwing
- Spears
- Spear guns
- Potato guns