

Acknowledgments

Scouting America greatly appreciates the National Range and Target Activities Subcommittee members for their expertise and recommendations in the development of the *National Range and Target Activities Manual*.

We would also like to acknowledge the longstanding relationship with the National Rifle Association (NRA) in the goal of training youth and adults in the safe use of firearms.

Scouting America would like to acknowledge the relationship with USA Archery for the relationship in developing and training youth and adults in safe archery experiences.

SCOUTING AMERICA'S COMMITMENT TO SAFETY

In Scouting, we will not compromise the safety of our youth, volunteers, and employees. Safety is a value that must be taught and reinforced at every opportunity. We are all responsible and must hold each other accountable to provide a safe environment for all participants.

We are committed to abuse prevention by utilizing:

- Mandatory youth protection training.
- Criminal background checks.
- Banning one-on-one adult and youth interactions.
- Mandatory reporting of suspected abuse to law enforcement.
- A volunteer screening database.

We are committed to injury and illness prevention by integrating safety measures in our handbooks, literature, and training materials including the *Guide to Safe Scouting*. We expect leaders to use the four points of **SAFE** when delivering the program. **SAFE** Scouting measures include:

- Youth are **Supervised** by qualified and trustworthy adults who set the example for safety.
- Activities are **Assessed** for risks.
- Pre-requisite **Fitness** and **skill** levels are confirmed before participation.
- Appropriate **Equipment** is utilized and **Environmental** conditions are monitored.

When incidents do occur, we expect a timely, clear, and complete incident report. We are committed to learning from the data and modifying program guidance for the prevention of future occurrence.



INTRODUCTION

The purpose of Scouting America's range and target activities is first and foremost centered around teaching firearm safety. Scouting America's range and target activities are developed and implemented through age-appropriate training and experiences. Scouting America adheres to its longstanding policy of teaching its youth and adult members the safe, responsible, and intelligent handling, care, and use of firearms, archery, and hand-held throwing sports in planned, carefully managed, and supervised programs for each youth who chooses to participate.

In addition, participating in range and target activities provides Scouts the opportunity to learn responsibility, self-discipline, problem solving, concentration, sportsmanship and acquire lifelong skills and hobby interest.

Scouting America follows the SAFE practices and requires all ranges to have Standard Operating Procedures (SOP) that are approved for that range. Range supervision and instruction are overseen by qualified staff with a key focus of Scout safety.

The Scouting America's National Range and Target Activities Subcommittee understands the need for clarification in the terminology and delivery of range and target activities. The Guide to Safe Scouting and this manual contains information for all the range and target activities and provides guidance for their implementation in Scouting. **No other range and target activities are authorized at this time.** Information on approved firearms, ranges, qualified supervision, training requirements, targets, and ammunition is included.



Scouting is SAFE – Range and Target Activities

Scouting America adheres to its longstanding policy of teaching its youth and adult members the safe, responsible, and intelligent handling, care, and use of firearms, archery and hand-held throwing sports in planned, carefully managed, and supervised programs. Safety during range and target activities must remain top of mind.

Supervision

Youth are supervised by qualified and trustworthy adults who set the example for safety. Supervision includes:

- Range Management - a range safety position(s) who oversee the shooting stations and participants. At a minimum, all Scouts BSA troops, Venturing crews, and Sea Scout ships who provide unit-level sponsored/planned range and target activities must have at least one registered unit leader 21+ years of age take the Range Activity SAFETY online training at my.Scouting. This individual must be present at the range during the activity.
- Instruction – participants with the right demeanor, skills, abilities and validated credentials to teach safety and develop the participant's ability at that activity.
- During live fire, range safety positions and instructors may be supplemented by coaches, registered leaders, and even parents and partners to support a safe experience for participants.
- Cub Scout range and target activities are only conducted and supervised by local Councils. Cub Scout pack unit level sponsored range and target activities are prohibited.

Assessment

Activities are assessed for risks during planning. Leaders have reviewed applicable program guidance or standards and have verified the activity is not prohibited. Risk avoidance or mitigation is incorporated into the activity. Assessment includes:

- Validating the range and target activities are age-appropriate for the participants being served. Please review the Guide to Safe Scouting Age-Appropriate Guidelines Chart prior to beginning the activity.
- When utilizing council's nationally authorized camp property's range(s) or commercial ranges, standard operating procedures for each venue are available, fitting the discipline, equipment and ammunition being used.
- Verification of state and local laws regarding range and target activities are followed.

Fitness and Skill

Participants' Annual Health and Medical Records are reviewed, and leaders have confirmed that prerequisite fitness and skill levels exist for participants to take part safely. This includes:

- An instructor reviewing participant's ability (with or without accommodations) to safely operate the device, firearm, or bow, or throwing object.
- Participants have received the appropriate on-site safety briefing before participation including the three rules of firearm safety.

Equipment and Environment

Safe and appropriately sized equipment, courses, camps, campsites, trails, or playing fields are used correctly. Leaders periodically check gear use and the environment for changing conditions that could affect safety. This includes:

- Before any use, and periodically, all equipment (shooting devices, firearms, bows, slingshots, hawks, knives, target frames or targets, etc.) should be inspected by a range supervision and instruction and qualified gunsmiths or archery retailer.
- Safe and secure storage and transportation for firearms, ammunition, bows, etc.
- Personal Protective Equipment for all participants and observers is available and used as required. Including:
 - Eye protection
 - Hearing protection
 - Armguards
 - Finger Tabs or finger savers
 - Appropriate attire

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CHAPTER 1: QUALIFIED SUPERVISION—ROLES AND RESPONSIBILITIES

Introduction to Range and Target Activities and the Positive Aspects

Throughout Scouting America from Cub Scouting to Venturing and Sea Scouting, all programs use responsible outdoor activities to promote character development and values-based leadership training. Range and target activities have the ability to attract and retain youth in the movement. Millions of young people participate in one or more of the sports annually—archery, rifle and shotgun activities, etc.—guided by adults who have the certification, skills and knowledge to provide quality programs in a safe and effective way.

Key to safe and effective unit activities is informed, trained, and conscientious unit leadership. Various activities can present some degree of risk; those risks can be mitigated by training and commitment of Scouting volunteer leaders. When activities are properly conducted under the appropriate guidelines, they can be safe, fun filled, exciting, and rewarding.

The registered adult leader(s) in charge are always responsible for ensuring that all activities adhere to the age appropriate guidelines and follow the program design of Scouting America. However, Scouting America policy does not specify that the unit leader must be the one to satisfy all the criteria for supervision of specific program activities. All Scouts BSA troops, Venturing crews, and Sea Scout ships who provide unit-level sponsored/planned range and target activities must have at least one registered unit leader 21+ years of age take the Range Activity SAFETY online training available on my.Scouting.org. This individual must be present at the range during the range and target activity(s). Participating in this training will help ensure a unit understands Scouting America's range and target activities policies.

For range and target activities, the unit leader may or may not hold specified certification(s) for the supervision of the range and in the case of Cub Scouting, range and target activities are not approved for a unit activity.

There are two main aspects of range supervision:

1. Range Management – Those individuals who are in charge of range safety and overseeing the shooting stations and participants. These people are responsible for following the approved Standard Operating Procedures (SOP) for the range and overall range supervision. This person is the safety officer.
2. Range Instruction – Those individuals whose primary concern is instruction in the type of shooting, referred to as a shooting discipline. This person is responsible to train in the proper use of and care for the equipment being used. This person may instruct advancement or recognition pieces. Their main responsibility is to instruct and foster competency in the participant.

This publication provides guidance on how to ensure proper safeguards are in place for a range and target activity, whether those safeguards are implemented by the facility operator or the unit. Skills and certifications are reviewed, as well as requirements for a proper facility. After reviewing this material, the leader should be confident in their ability to judge when a range and target activity is safe, when the risk is unacceptable, or when their background is insufficient to make that determination. Experienced, informed leaders develop a sense or intuition regarding an action. When an activity exceeds the leader's comfort zone, it should be curtailed or modified.

Range and Target Activities Personnel Descriptions

Beginning September 1, 2024, the position previously titled "Shooting Sports Director" will be renamed "Range Activities Director." Individuals holding a valid certificate from the Shooting Sports Director section of the National Camping School retain their certification until it expires. Expiration dates are indicated on an individual's official National Camping School certificate card. In this manual, the title "Range Activities Director" may also refer to those previously certified as "Shooting Sports Directors," provided their certification remains valid.

Range Activities Director

- Twenty-one years of age or older and currently certified with a valid certificate of training from the Range Activities Director or Shooting Sports Director section of National Camping School within the past five years.
- In charge of all range and target activities, including rifle, shotgun, muzzleloaders, throwing sports and archery during camp program.
- Manages staff that includes properly qualified instructors with current certifications and trains support staff.
- Sees that all areas are maintained and used properly, keeps an updated inventory of equipment, and is in charge of the safe and proper maintenance and use of this equipment.
- Can serve as a Range Safety Officer if the National Camping School certified Range Activities Director holds current NRA Range Safety Officer Certification.
- Can serve as an NRA Instructor if the National Camping School Range Activities Director holds current NRA Instructor certifications for the discipline for which supervision and instruction is required.

NRA Certified Instructor

- Twenty-one years of age or older. Current NRA Instructor rating in the specific program for which supervision and instruction is required. The National Camping School Range Activities Director can be the NRA Instructor.

NRA Assistant Instructors

- Eighteen years of age or older and holds current NRA assistant instructor's certificate in the appropriate discipline
- Can assist the NRA Instructor in supervising a range; however, this does not include running a live firing line.

NRA Range Safety Officer

- Twenty-one years of age or older and holds current NRA Range Safety Officer credentials
- In charge of the firing line at any time it is in operation
- May not leave the firing line at any time while it is in operation

Range and Target Activities Program Counselors and Aides

- Sixteen years of age or older and trained for specific duties by a National Camping School Range Activities Director
- Under on-site supervision of an NRA Range Safety Officer, may exercise crowd control, serve as training assistant for specified topics assigned by the NRA Range Safety Officer, move and maintain equipment, and act as a coach in a student coach/pupil setting
- May NOT supervise any live fire

Scouting America BB Gun Rangemaster

- Eighteen years of age or older and trained by a National Camping School Range Activities Director or National Rifle Association rifle instructor
- Is in charge of the firing line at any time it is in operation
- BB gun rangemaster training must be renewed every two years, and this person must have a current Training Course Certificate, No. 33767

Scouting America Archery Director

- 18 years of age or older
- An Archery Rangemaster who is trained by a National Camping School Range Activities Director or is instructor certified by the USA Archery using USA Archery Level 1 instructor course by a USA Archery Level 2 Instructor Trainer or a National Camping School Range Activities Director or a USA Level 1 Archery Instructor and would receive a Rangemaster certification.

- Responsibilities include the setup and operation of a safe archery range for Cub Scout, Scouts BSA, Venturing or Sea Scouting programs, Archery merit badge instruction, and management of an archery staff at camp.

Scouting America Archery Rangemaster

- Eighteen years of age or older and trained by a National Camping School Range Activities Director or USA Archery Level 1 Archery Instructor to set up and operate a safe archery range for a Cub Scouts, Scouts BSA, Venturing or Sea Scouting archery program according to the standards located in this manual, "Archery and BB Guns."
- Archery rangemaster training must be renewed every two years, and this person must have a current Training Course Certificate, No. 33767.

Council Range and Target Activities Coordinator/Chair

- 21 years old or older. National Camping School certification as a Range Activities Director is recommended.
- National Rifle Association certified instructor for one or more of the appropriate disciplines is recommended.
- Current NRA Range Safety Officer or NRA Chief Range Safety Officer certification is recommended.
- USA Archery Level 1 Archery Instructor certification recommended.

Definition of "Instructor Qualified"

To be instructor qualified means the individual holds one or more of the following certifications depending on the discipline.

Trained and currently documented by:

- Scouting America National Camping School as a Range Activities Director for rifle, shotgun, co-op muzzleloading rifle, and archery.
- The National Rifle Association as a currently certified instructor for the specific discipline where instruction is taking place (rifle, shotgun, pistol, co-op muzzleloading rifle, or NRA/NMLRA muzzleloading instructor)
- USA Archery as a currently certified USA Archery Level 1 instructor or higher.

A copy of the current training certificate or document is to be on file at the local council office and/or camp.

The following Chart describes the disciplines for Scouting programs, and the supervision required to operate these programs. All range and target activities must follow the guidelines of the Guide to Safe Scouting and the age appropriate guidelines of Scouting America.

Program	Participants	Safety equipment	Minimum program supervision requirements	Qualified staff to open the range	Minimum number of staff to operate	Ratio instructor : participant	Additional information
BB (Scouting America Accredited Camp)*	All program levels <i>except</i> Lion Cub Scouts	Eye Protection	BB gun Rangemaster	BB Gun Rangemaster National Camping School Range Activities Director NRA Rifle Instructor Certified Military shooting instructor** Certified Law Enforcement Shooting Instructor** Certified 4-H Shooting Instructor**	1 qualified staff and appropriate assistants	1:1 adult to participant for Tiger Cubs 1:8 all others	Cub Scout participation at District or Council events Only
BB (Unit Activity)	Scouts BSA, Venturing, Sea Scouting	Eye protection	BB gun Rangemaster	BB Gun Rangemaster National Camping School shooting Sports Director NRA Rifle Instructor	1 qualified staff and appropriate assistants	1:8	Not approved as a Cub Scout unit activity
Slingshot (Scouting America Accredited Camp)*	All program levels	Eye Protection	BB gun Rangemaster	BB Gun Rangemaster National Camping School Range Activities Director NRA Rifle Instructor Certified Military shooting instructor** Certified Law Enforcement Shooting Instructor** Certified 4-H Shooting Instructor**	1 qualified staff and appropriate assistants	1:1 adult to participant for Cub Scout (all levels) 1:4 adult to participant Scouts BSA, Venturing, Sea Scouting	Cub Scout participation at District or Council events Only
Slingshot (Unit Activity)	Scouts BSA, Venturing, Sea Scouting	Eye Protection	BB gun Rangemaster	BB Gun Rangemaster National Camping School Range Activities Director NRA Rifle Instructor	1 qualified staff and appropriate assistants	1:4 adult to participant	Not approved as a Cub Scout unit activity
Pellet Rifles	Scouts BSA, Venturing, Sea Scouting, Webelos and Arrow of Light Scouts (Long-term camp only)	Eye Protection	NRA Rifle Instructor	National Camping School Range Activities Director NRA Rifle Instructor Certified Military shooting instructor** Certified Law Enforcement Shooting Instructor** Certified 4-H Shooting Instructor**	1 qualified staff and appropriate assistants	1:8	Webelos Scouts and Arrow of Light Scouts may use pellet rifles on a council operated range while attending a long-term camp. All pellet rifles (CO2, pump, break barrel, etc.) are limited to singleshoot, designated for target shooting, velocity of 500 to 540 feet per second, with a minimum of 2.5 pound trigger pull. See also Multigun Airsoft Experience Operations Guide in appendix for additional operational guidance.

*Scouting America accredited camp means, Day Camp, Short-term Camp and Long-term camp following the NCAP standards. If a council or district has a day activity, standards for “unit activity” apply. Unless otherwise stated the supervision standard is the same for a camp or unit activity. | **Requires approved waiver. In addition, if these positions are used, these individuals need to also be familiar with and follow the program outlined in the Cub Scout Range and Target Activities Guide located in chapter 23 of this manual. | † Required waiver for long-term camp only

CHAPTER 2: SCOUTING AMERICA RANGE AND TARGET ACTIVITIES — A WEALTH OF YEAR-ROUND OPPORTUNITIES

CUB SCOUT PROGRAMS

Cub Scout range and target activities programs may be conducted only on a district or council level. Archery, slingshot and BB gun shooting are restricted to day camps, Cub Scout/Webelos Scout long-term camps, council-managed short-term camps, or to council or district sponsored activities where there are properly trained supervisors and all standards for Scouting America range and target activities are enforced. Archery, slingshot and BB gun shooting are prohibited at the pack level.

The use of pellet air rifles is restricted to Webelos Scouts and Arrow of Light Scouts in a long-term camp setting only.

SCOUTS BSA, VENTURING AND SEA SCOUT PROGRAMS

Firearm programs may only take place on a nationally authorized camp property's range(s) or at a commercial firearm range. This does not apply to district or council programs that utilize BB devices, but applies to pellet rifles, airsoft (any type), rifles, pistols, shotguns, and muzzle loading rifles and shotguns. Some states, counties, or other jurisdictions may regulate BB guns as firearms depending on their design and capabilities. Councils must review and follow any local regulations before conducting programs.

The council's camp may be an ideal location for range and target activities. Here, safely designed ranges may be established for the long-term camping program. Under qualified leadership, Scouts, should be given a chance to participate in these skills year-round. Alert unit, district, and council leadership will discover community resources that will be available to units throughout the year. Local archery, National Rifle Association, and sportsmen's groups will often provide facilities and resources.

Scouts BSA, Venturing and Sea Scout members can shoot small-bore rifle, shotgun, muzzleloading rifle, muzzleloading shotguns, and archery following the five levels of shooting described in the chart in Chapter 1.

Scouts BSA members who are 14 years of age or older, or are 13 years of age and have completed the eighth grade, Venturing and Sea Scout members may participate in the NRA FIRST Steps Pistol Orientation sponsored by their council or district. No other pistol program is allowed, except for potential participation in approved council cowboy action programs. Pistol use is limited to pistols and revolvers as follows: .177 pellet pistol; .22 long rifle rimfire; .38 caliber special; or 9 mm only.

For information about the Scouts BSA Merit badge programs refer to the following publications:

- Rifle Shooting merit badge pamphlet, No. 35942
- Shotgun Shooting merit badge pamphlet, No. 35948.
- Archery merit badge pamphlet, No. 35856.

Long-term and Short-term camp programs. Scouting America camp programs offer a wide variety of range and target activities opportunities for Scouts. Each local council will serve as a resource for more information on what that council's camp offers.

Hunter education (Scouts BSA/Venturing and Sea Scouting). Contact your local department of natural resources for more information on hunter safety and education, or find information online at www.hunter-ed.com (Hunting programs are only approved for Venturing and Sea Scouting).

Venturing Range and Target Activities Outstanding Achievement Award. While working on the Ranger Range and Target Activities elective, Venturers and Sea Scouts are to complete one of the following disciplines: pellet pistol, air rifle, archery, muzzleloading rifle, shotgun, or small-bore rifle. However, Venturers and Sea Scouts who go beyond the basic requirement and complete five of the seven disciplines will earn the Venturing Range and Target Activities Outstanding Achievement Award. This medal and certificate are sponsored by many companies and organizations to recognize outstanding achievement in shooting sports.

For more information, go to <https://www.scouting.org/awards/awards-central/venturing-shooting/>

CHAPTER 5: RANGE OPERATION

In planning any range and target activities, consideration must be given to what equipment is required for that specific shooting discipline and venue. Care must be taken to provide, or arrange for, the safety of non-participants as well as personal protection of the participant. This chapter examines some of the items that should be considered.

The use of personal firearms and personal ammunition is prohibited in all Scouting programs at a camp property (see Standard SA-001). Personal firearms and personal ammunition may be used at a commercial firearm range, subject to restrictions regarding caliber, gauge, and action as described in this manual.

General Equipment Common to All Scouting Program Levels and Range Disciplines

Range safety flag. As an indicator that the range is active, the range safety flag is to be displayed on a flagpole in a prominent place visible to approaching spectators and participants. Each range should have its own flagpole. It is recommended the flag be made of a bright red material approximately 48-by-36 inches in size. (This flag can be purchased from the NRA's online store.) The flag should be removed at the end of the shooting session.

Eye and hearing protection. Each participant must wear hearing and eye protection appropriate for the shooting discipline. Spectators in the immediate, designated area must also wear protection as appropriate. ANSI Z87.1 is the approved rating and the industry standard. Shooting sports safety glasses with this rating should be worn anytime safety glasses are prescribed.

This personal safety equipment may be provided by the event or furnished by the individual participant. If provided by the individual, the Range Safety Officer or NRA instructor should verify that eyeglasses have adequate lens area to offer protection. Hearing protection must fit properly.

If eye and hearing protection is furnished by the event organizers, an assortment of sizes should be on hand to ensure proper fit. Youth sizes are available from many vendors of safety glasses. Earmuffs might be preferable to earplugs. When exchanging common-use items, be sure to clean and disinfect them before wearing them. Earplugs are NOT to be exchanged.

Empty-chamber indicator. An added safety measure while transporting or storing, or while the firearm is, UNLOADED AND NOT BEING USED ON THE FIRING LINE a visual empty-chamber indicator should be installed. Several commercial models are available which when installed in the chamber displays a brightly colored flag readily visible.

A simple alternate method is to use a piece of high-visibility, heavy monofilament trimmer line, cut approximately 12 inches longer than the barrel of the firearm. When inserted through the barrel, approximately 6 inches of line is visible at both the muzzle and the breech.

Ammunition control. A simple ammunition block, with an appropriate number of 15/64-inch-diameter holes drilled in a pattern of a multiple of five, should be used to control the ammunition being dispensed to the participants. Range personnel will load the blocks from the bulk ammunition storage, and issue only the number of rounds being fired for a given relay. If magazines are being used, range personnel will load magazine prior to distribution.

Comfort items.

- Sling. A leather or web sling will aid participants in the prone, kneeling, and sitting positions. They are easily adjustable to each participant and will steady the participant.
- Prone mat. A padded shooting mat of approximately 30-by-60 inches should be provided at each prone shooting position.
- Kneeling roll. A piece of carpet remnant approximately 8 inches wide and tightly rolled and bound to approximately 4 to 6 inches in diameter may be placed under the ankle of the down leg when shooting in the kneeling position.

First-aid kit. A first-aid kit must be readily accessible to the range or classroom. It should be well stocked and include items appropriate for potential injuries unique to the specific range and target activities venue. A medical log must be included in each kit. Details of each incident should be recorded. Any injury requiring first aid of any kind must be recorded in the First Aid Log for camp if the activity is a part of a Council long term, short term or day camp and if required, submit an incident report. Expended materials should be replaced before the next activity. Contents should be monitored and replaced as needed.

Emergency communications device. The procedure to summon emergency help must be considered during planning and be verified before the start of the event. The details of the exact location should also be noted in the event of an emergency. All range personnel should be familiar with the emergency procedures of the event and understand how to reach help.

Range Equipment Appropriate to Each Scouting Program Level

NOTE: The Cub Scout range and target activities programs are authorized for District and Council events only and are not approved for use at the unit level. For approved shooting activities for each age level, refer to the age appropriate guidelines within the *Guide to Safe Scouting*.

BB Gun

BB Gun. Only a smoothbore, spring-type air gun propelling a coated steel ball projectile commonly known as a “BB” may be used.

Target. The target line is usually 16.5 feet from the firing line. The TQ-40 and AR-4 are the common targets for this distance. Paper plates or aluminum pie tins are also popular targets for Cub Scouts and training new shooters. Animal, zombie, and human form silhouettes are not approved for Cub Scout use. Appropriate animal silhouettes including wild game species normally hunted are appropriate for Scouts BSA, Venturers, or Sea Scout use. Zombie and human form silhouettes are not approved for use in any Scouting America range and target activities programs.

Personal Protection. All participants must wear eye protection.

Pellet Rifle

Pellet Rifle. Spring, piston or pneumatic (single stroke, multi-pump, air, or CO2 gas) pellet rifles with rifled barrels bored for .177-caliber skirted pellets may be used. Pellet rifles (CO2, pump, break barrel, etc.) are limited to single-shot, designed for target shooting with a look comparable to approved .22 rifles. Rifles may be used by Webelos Scouts, Arrow of Light Scouts, Scouts BSA, Venturers and Sea Scouts. Webelos and Arrow of Light use is restricted to long-term camps only.

- The pellet rifle range meets or exceeds Scouting America and NRA recommendations and appropriate Scouting America Outdoor Programs/Properties design standards.
- All pellet rifles in good repair are provided. All pellet rifles used in Scouting America range and target activities have a trigger pull in excess of 2.5 pounds and are tested with a 2.5-pound weight or scale at least once a week while in use. If any trigger mechanism fails, the pellet rifle is immediately removed from service. Documentation of the tests is maintained.
- **Webelos and Arrow of Light Scouts Only:** All pellet rifles (CO2, pump, break barrel, etc.) are limited to single-shot designated for target shooting, velocity of 500 to 540 feet per second, and energy levels not to exceed 7.5 joules.

- Pellet rifle propellant is limited to CO2 cylinders or air compressor/scuba tanks. Refilling is conducted by qualified/trained adults with appropriate controls. If scuba tanks are used, each tank must be visually inspected annually and hydrostatically tested every five years by a qualified technician. Scuba tanks used for range and target activities purposes may not be used for scuba purposes.

Pellet Rifle Target. The target line is usually set at 33 feet from the firing line. The TQ-18 and AR-5 are the common targets for this distance. Paper plates or aluminum pie tins are also popular targets for training new shooters. Animal, zombie, and human form silhouettes are not approved for Webelos or Arrow of Light Scout use. Appropriate animal silhouettes including wild game species normally hunted are appropriate for Scouts BSA, Venturers, or Sea Scout use. Zombie and human form silhouettes are not approved use in any Scouting America range and target activities programs.

Personal Protection. All participants must wear eye protection.

Rifle

Rifle.

Scouts BSA, Venturing and Sea Scouts. May only use .22 caliber breech-loading, single-shot or a repeater type bolt-action rifles with a box-style magazine. (Only .22 caliber Short, long, long rifle may be used.) (Rifle tubular magazines are not allowed.) *Note: Tubular magazines may be used in approved Cowboy action programs only following the guidelines in the Cowboy action guide in the appendix of this manual. Councils must be approved by the National Council to offer Cowboy action programs using the NCAP Intent to Operate form each year.

Ammunition. Current-manufacture cartridges appropriate for the caliber firearm being used. **Reloading and use of reloaded ammunition is not approved for BSA programs. Tracer, armor-piercing and exploding ammo are not allowed.**

Sights.

- Open sights found on most rifles are limited to elevation adjustment.
- Aperture (peep) sights are fully adjustable and have an easy-to-learn sight picture. The easy adjustment will aid in qualification shooting.
- Optical (red dot, telescopic) sights are also fully adjustable.

Targets. TQ-1, TQ-5, and A-17 targets are recommended at 50 feet. The A-23 is a popular small-bore rifle target at 50 yards and the A-25 is sized for 100 yards. Scouts BSA, Venturers, and Sea Scouts are allowed to use tasteful and appropriate animal silhouette targets (paper and 3-D targets) with 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. Metallic silhouette animal targets are also approved for use.

Exploding targets are NOT approved for ANY shooting activity.

Personal Protection. All participants must wear eye and hearing protection.

Shotgun

Shotgun. Modern, age-appropriate, target shotgun models, 12-, 16- or 20-gauge, may be used. Experience shows that beginning shotgun participants are more successful with a 20- or 12-gauge shotgun, putting more shot to the target.

Chokes. At the muzzle end of the shotgun is a “choke.” Just as the nozzle of a garden hose determines the width of a jet of water, the choke affects the spread pattern of the pellets exiting from the barrel. There are four main chokes: skeet, IC (improved cylinder), M (modified), and F (full). For camp use, skeet and IC are recommended. If these are not available, modified would be the best choice.

Ammunition. Current-manufacture shotshells of the appropriate gauge contain No. 7½ to No. 9 shot. A shot size larger than 7½ is not to be used. **Reloads may not be used in Scouting America range and target activities programs.**

Trap/thrower. Hand throwers, manual traps, or automatic traps may be used. Care should be taken to match the target speed and flight path to the shooter’s ability. Always refer to the manufacturer’s operations and safety instructions before operating this equipment.

Trap location. For new shooters and merit badge qualification, the trap should present a straight-away, rising target, at a reasonable speed. Trap systems on trap and skeet fields and on sporting clays courses will provide the participant with some challenging presentations as skills are mastered.

Personal Protection. All participants must wear eye and hearing protection.

Muzzleloading Firearms

Because of the historical significance of muzzleloading firearms, Scouts BSA members, Venturers, and Sea Scouts are encouraged to learn to safely load and shoot a muzzleloader. On the range, each participant must be under the direct supervision (one-on-one) of a currently certified NRA or NRA/NMLRA muzzleloading instructor (for the appropriate discipline) when loading or firing the muzzleloader.

Scouts BSA, Venturing and Sea Scouts. May only use muzzleloading rifles or muzzleloading shotguns. (No muzzleloading handguns are permitted in the Scouting America program.)

Muzzleloading rifles. Recently manufactured (or assembled from a kit) percussion cap muzzleloading rifles or inline muzzleloading rifles of any caliber may be used. All muzzleloading rifles are subject to safety inspection by the instructor or range officer. Rifles made from kits must be checked by a qualified gunsmith.

Propellant. Only a commercially manufactured, sporting-grade black powder or black powder substitute offered for sale by a reputable firm should be used in muzzleloading firearms. For new shooters, the amount of propellant in grains should be at the minimum of the gun manufacturer’s recommended load range.

Accessories.

- **Ramrod.** The ramrod is used to seat the patch and shot. It is usually mounted in the fore-end of the stock, just beneath the barrel. It is recommended that a more durable work rod be obtained for use on the range. The first time a new rod is used, it should be inserted into the empty barrel all the way down. A permanent mark should be scribed on the rod at the end of the muzzle. Then the same procedure should be used after a standard charge (powder, patch, and ball) has been placed in the barrel. This will enable the shooter to know whether the barrel is empty or has a standard charge.
- **Powder flask and powder measure.** Propellant shall be transferred from the original bulk container to a brass or plastic powder flask to be taken to the range. It shall then be poured into the powder measure before pouring into the barrel.
- **Shot starter.** (ml rifle) This tool allows the shooter to first get the ball and patch just started into the muzzle, and second to drive the ball a short distance down the barrel, before using the ramrod to seat the patch and ball against the powder charge.
- **Shot measure.** (ml shotgun) A small cup with a handle that allows the shooter to measure the exact amount of shot and then pour it directly into the barrel.
- **Nipple wrench and nipple pick.** The nipple wrench is simple tool used to remove the cap nipple should it become fouled. A nipple pick is a stiff wire that is used to clear debris in the nipple orifice (flash channel).
- **Capper.** Percussion caps are packaged 100 per tin. The capper allows the caps to be dispensed one at a time right onto the nipple.
- **Patch puller, ball puller.** These tools fit onto the end of the ramrod to remove the ball or patch from down in the barrel. Care must be taken when using these items.

- **CO₂ ball discharger.** This tool has a fitting to fit onto the nipple and has a small CO₂ cartridge to provide pressure to blow a patch and ball out of the muzzle of the gun. **Always point the muzzle-loader in a safe direction when using this device.**
- **Loading bench.** Many Scout ranges are equipped with a loading bench that provides a stable and easy-to-reach platform for the muzzleloading firearm during the loading process.

Personal Protection. All participants must wear eye and hearing protection.

Pistols

Scouts BSA members who are 14 years of age or older, or are 13 years of age and have completed the eighth grade, Venturing and Sea Scouts may participate in the NRA FIRST Steps Pistol Orientation sponsored by the district or council. No other pistol program is allowed, except for potential participation in approved council cowboy action programs. No unit level sponsored pistol program is approved in any Scout America programs.

Handguns of any type are NOT permitted for Cub Scouting.

Pistols and Revolvers. Pistol use is limited to pistols and revolvers as follows: .177 pellet pistol; .22 long rifle rimfire; .38 caliber special; or 9 mm only.

Sights. Open sights may be fixed or adjustable. Optical sights (red dot and telescopic) sights are also fully adjustable, but care must be taken to provide an appropriate scope for the shooting distance. Laser sights have become extremely popular as a training aid for pistol shooting; however, they may not be permitted for certain qualification programs.

Targets. A 9-inch paper plate is recommended for training new shooters at 15 feet. The TQ-6, slow-fire, and TQ-7 rapid-fire targets are recommended at 25 feet. B-2, slow-fire, and B-3, timed and rapid-fire are popular pistol targets at 50 feet. The B-16, slow-fire, and B-8, timed and rapid-fire, targets are sized for 25 yards. Appropriate animal silhouettes include wild game species that are normally hunted. Human form and zombie silhouette targets are not approved for use. Metallic silhouette is becoming a popular target discipline at many clubs and ranges. **NO exploding targets are allowed in any Scouting America program.**

Personal Protection. All participants must wear eye and hearing protection.

Pointing any type of firearm or simulated firearm at any individual is unauthorized. Units with council approval may participate in formally organized historical reenactment events where firearms are used and intentionally aimed over the heads of reenactment participants. Leaders and the council approvers for participation must complete the SAFE Checklist during planning for attendance or participation.

Archery

Bows.

Cub Scouts. A light-draw-weight (15- to 20-pound), 54-inch, take-down, recurve bow is recommended because the bow will fit many archers who have different lengths of draw.

Scouts BSA. A light-draw-weight (20- to 25-pound), 62-inch or 66-inch, take-down, recurve bow is recommended because the bow will fit many archers who may have different lengths of draw.

Venturers and Sea Scouts. A light-draw-weight (20- to 35-pound), 62-, 66-, or 70-inch, take-down, recurve bow is recommended because the bow will fit many archers who may have different lengths of draw.

All bows should be equipped with an arrow rest in good condition and with a proper-length, well-served, 10- to 12-strand string with properly placed nock locator.

Always inspect the bow for cracks and splinters, and the condition of the bowstring and serving.

A universal draw length bow is popular in youth programs because it provides all the advantages of a compound bow but with an adjustable draw weight to accommodate participants of all abilities.

True compound bows are not recommended at this level because they must be set up to fit each individual archer.

Arrows. Care should be taken to inspect arrows before use.

- **Shaft material.** Wood arrows are light but susceptible to warping and splintering. Fiberglass arrows are heavier, and more durable, and will last several seasons. Aluminum arrows are light and shoot true, but cannot be repaired if bent or kinked. Carbon fiber arrows are lighter, stronger, and preferred by most competitive shooters.
- **Length.** An appropriate length arrow for Cub Scout age youth will be approximately 24 to 26 inches. For Scouts BSA use will be approximately

26 to 30 inches. For Venturers and Sea Scout use, arrows will be approximately 28 to 32 inches. Care must be taken to avoid shooting an arrow that is too short for the archer or too short for the bow.

- **Point.** Arrows must be fitted with target points. No field points or broadheads.
- **Nock.** The nock should fit the serving of the bow being used. The arrow should not fall from the string if the nock opening is correct.
- **Fletching/vanes.** Either may be used; however, plastic vanes provide longer service with young participants.

Personal protection.

- **Quiver.** For each archer, either a personal side quiver or a ground quiver must be provided to store arrows during shooting.
- **Finger protection.** Archers must wear a finger tab or glove unless there are “no gloves” on the string.
- **Arm protection.** Each archer **must** wear an arm guard on the bow arm. Arm guards may be obtained in junior sizes for small arms.
- **All protective equipment must be properly sized for the archer.**

Sights.

- Not recommended for Cub Scouts.
- As the fundamentals of archery are learned, it is recommended that sights be added to the bow. Least expensive may be a simple quilter’s pin affixed at the sight window by foam tape applied to the back of the handle.
- Relatively inexpensive target sights may be added to the bow, which will be a tremendous aid to the shooter for qualifying or competition.

Targets.

Cub Scouts. It is recommended that large-diameter target mats and faces be used to ensure success and to reduce the number of lost arrows. Ethafoam mats are commercially available in 48-inch, 36-inch, and 32-inch diameters, with five-color target faces to match. Animal, zombie, and human silhouettes are not approved for Cub Scout use.

Set the target line at no more than 10 yards in front of the shooting line, adding to the success of young archers. The mat should be mounted relatively low to the ground to make it easier to extract arrows from the target.

Scouts BSA. It is recommended that large-diameter target mats and faces be used to ensure success and to reduce the number of lost arrows. Ethafoam mats are commercially available in 48-inch, 36-inch, and 32-inch diameters, with five-color target faces to match.

Scouts BSA participants are allowed to use tasteful and appropriate animal silhouette targets (paper and 3-D targets). Appropriate animal silhouette targets include wild game species that are normally hunted. Human form and zombie silhouettes are not approved for use.

Venturers and Sea Scouts. For new shooters, it is recommended that large-diameter target mats and faces be used to ensure success and to reduce the number of lost arrows. Ethafoam mats are commercially available in 48-inch, 36-inch, and 32-inch diameters, with five-color target faces to match. As Venturers and Sea Scouts develop skill, various target games and shooting distances may be introduced to provide a challenge for the participant. Venturers and Sea Scouts are allowed to use tasteful and appropriate animal silhouette targets (paper and 3-D targets). Appropriate animal silhouette targets include wild game species that are normally hunted. Human form and zombie silhouettes are not approved for use.

CHAPTER 6: SAFETY

Scouting America adheres to its longstanding policy of teaching its youth and adult members the safe, responsible, and intelligent handling, care, and use of firearms, throwing equipment and bow and arrow in planned, carefully managed, and supervised programs.

Safe gun handling is of paramount importance. You must treat every firearm as if it were loaded. With that in mind, there are several universal rules of safe gun handling that must always be followed.

1. **Always** keep the gun pointed in a safe direction.
2. **Always** keep your finger off the trigger until ready to shoot.
3. **Always** keep the gun unloaded until ready to use.

Communications

Each range should have reliable communication with the appropriate staff overseeing the event or activity.

Emergency Response Plans

A complete first-aid kit should be centrally located near the ranges. The location of the first-aid kit should be prominently marked. In the event of an accident, the established emergency protocols for the camp or activity should be followed.

National Camping Standards

For standards related to range and target activities and day camp, short-term and long term camp operation and management procedures, refer to the current National Camp Accreditation Program Standards at www.scouting.org/NCAP.

Standard Operating Procedures

All ranges must have their own written standard operating procedures (SOP) and have them posted at the range. See Appendix for a sample of an SOP.

Equipment Inspections—Firearms and Archery

Prior to range operation, equipment must be inspected for safety and proper function. This inspection includes the firearm or apparatus being used as well as all protective equipment. During this inspection if any equipment is deemed unsafe or not sized appropriately for the participants, it must not be used. These inspections should be in advance of the activity or camp so if needed, corrective action can take place.

SAFE checklist

All shooting and throwing sports activities are expected to follow the Scouting America SAFE checklist. Leaders and staff conducting shooting sports activities must conduct this checklist prior to the event or activity. For a model SAFE checklist for range and target activities see the SAFE checklist at the beginning of this manual.

CHAPTER 7: ADDITIONAL CONSIDERATIONS

General

Lead protection. Lead is a soft, dense metal that is an integral part of most bullets. Lead is toxic to humans in relatively small concentrations, with the most susceptible organs being the eyes, central nervous system, and gastrointestinal tract. Handling ammunition, setting up a range for shooting, counting out rounds for firing, loading and unloading a firearm, discharging a firearm, and cleaning a firearm can all leave lead residues on the skin. Two easy precautions can minimize the risk of inhaling or ingesting lead residues. First, when handling ammunition or a recently discharged firearm, minimize contact of the hands with other parts of the body, particularly the eyes, mouth, and skin. When you are finished handling ammunition or firearms, immediately wash your hands with soap and cold water. It is strongly recommended that a handwashing station be next to all ranges and storage areas where ammunition or firearms may be handled or used. Food and drink should not be permitted on a range or in storage areas.

The use of lead can also be an environmental concern and may require some additional consideration for a local council or the landowner. Care needs to be taken to contain the impact of the range on the environment.

Other environmental impacts: The discharge of a firearm can cause a loud report. This noise can also become an environmental concern when the range is close to neighbors or other land owners. Care must be taken in the selection of range locations keeping in mind the noise that could be caused during range and target activities.

Cleaning solvents. Solvents used for cleaning firearms typically contain petroleum distillates, ammonia, caustics, and other potentially hazardous chemicals. Hazards may include skin damage, lightheadedness caused by vapors, and risk of fire. In addition, once the solvent has done its job of cleaning a firearm, it not only contains the original chemicals, but now contains the residues from the firearm, which may include lead, copper, gunpowder, and burned plastic. As with lead, contact with the eyes, mouth, and skin should be discouraged while handling firearm cleaning solvents. Use of appropriate gloves and eye protection are strongly recommended when using any cleaning materials and solvents. Food and drink should not be allowed in areas where cleaning takes place. A hand washing station with soap and cold water should be available near the firearm maintenance/cleaning area.

Considerations for people with special needs and disabilities. Another consideration concerns participants who may have physical, intellectual, cognitive and/or developmental challenges. Every effort should be made to serve all youth and adults in Scouting. This may require modification of facilities, equipment, content delivery or processes. Safety is the number one concern. The question may need to be asked to how accommodations can be made so that any individual can shoot safely. Considerations to influence the course of action may include: What challenges are afforded by the special need or disability? Does the participant have someone helping them? Can you communicate effectively with the participant and helper? Ask the participant, parent, and/or unit leader what is the best way to accommodate the participant (never assume disability is synonymous with inability). It may be necessary to temporarily close the range to other participants so you can work one on one on the range with a participant with the special need. Consideration must also be given to the provisions of the Americans With Disabilities Act.

For information about adaptive shooting with range and target activities, visit the inclusion toolbox <https://ablescouts.org/toolbox/>

CHAPTER 8: TRAINING COURSES

In Scouting events and activities, our primary consideration is the safety of youth and adult members. To achieve that goal, Scouting America, in consultation with other organizations, has created specific guidelines for range and target activities. These organizations also provide training and instructor certification by discipline-specific subject matter experts to prepare those individuals who will serve in a leadership or supervisory role in the various shooting sports activities.

In general, for all certifying organizations, the instructor candidate must meet specific eligibility requirements, satisfactorily complete the instructor training curriculum, understand and agree to the responsibilities of a certified instructor, and maintain active certification status.

Listed here are the shooting sports training certifications recognized by Scouting America.

Scouting America Training

Range SAFETY Online Training for Units

At a minimum, all Scouts BSA troops, Venturing crews, and Sea Scout ships who provide unit-level sponsored/planned range and target activities must have at least one registered unit leader 21+ years of age take the Range Activity SAFETY online training at my.Scouting. This individual must be present at the range during the activity.

Scouting America National Camping School

Annually, seven-day National Camping Schools are conducted. The purpose of the National Camping School is to prepare Scouters who will be serving in management or supervisory roles in a council camp. Those who successfully complete the range activities section of the National Camping School, will be given a certificate of training as a Range Activities Director, which is valid for five camping seasons.

Participation must be approved by a local Scout executive, and enrollment is administered through the local council. For more information about National Camping School visit <https://www.scouting.org/outdoor-programs/national-camping-school/>

It is also expected that the Scouting America range and target activities will serve the council as a resource year-round and be an active member of the council's range and target activities committee.

Rangemaster Training

Operation of BB, archery, and slingshot ranges for activities and events, including day camp, long-term camp, and short-term camping programs require qualified, trained Rangemasters.

BB/slideshot rangemaster and archery rangemaster training (2 separate courses) are administered by the council's range and target activities committee and conducted by a National Camping School certified range activities director or a council approved currently certified National Rifle Association rifle instructor for the BB/slideshot rangemaster and a USA Archery instructor certification for archery rangemaster. In either case the instructor must be familiar with the Scouting America program for which they are instructing (ex. NRA rifle instructor must be familiar with Cub Scout range and target activities if instructing BB range course for Cub Scout BB rangemaster.)

These BB/Slideshot rangemaster and Archery Rangemaster certifications are valid for two years from the date of the training.

A currently certified NRA rifle instructor is qualified to serve as a BB/slideshot rangemaster only if that person is familiar with the program policies and delivery of the Scouting America program they will oversee. A currently certified USA Archery Level 1 instructor or higher may serve as the Archery Rangemaster for archery activities.

National Rifle Association Training

NRA Certified Rifle Instructor

A NRA Certified Rifle Instructor is required to provide instruction for Scouting America rifle shooting activities involving Scouts BSA, Venturers, and Sea Scouts.

The NRA rifle instructor may teach the Scouting America 30-Minute Rifle Briefing, the NRA FIRST Steps Rifle Orientation, Scouting America Rangemaster training, the Rifle Shooting merit badge using the Rifle Shooting Merit Badge Teaching Guide, and the eight-hour NRA Basic Rifle Course.

A currently certified NRA rifle instructor is qualified to serve as a BB Rangemaster for BB shooting and slideshot shooting activities provided the individual is familiar with the programs of Scouting America they will oversee.

NRA Certified Shotgun Instructor

An NRA certified shotgun instructor is required to provide instruction for Scouting America shotgun shooting activities involving Scouts BSA, Venturers, and Sea Scouts.

The NRA shotgun instructor may teach the Scouting America 30-Minute Shotgun Briefing, the NRA FIRST Steps Shotgun Orientation, the Shotgun Shooting merit badge using the Shotgun Shooting Merit Badge Teaching Guide, and the eight-hour NRA Basic Shotgun Course.

NRA Certified Pistol Instructor

An NRA certified pistol instructor is required to provide supervision for Scouting America pistol shooting activities involving Scouts BSA, Venturers and Sea Scouts.

The NRA pistol instructor may teach the Scouting America 30-Minute Pistol Briefing, the NRA FIRST Steps Pistol Orientation involving older Scouts BSA youth, Venturing and Sea Scouts. Older Scouts BSA members must be 13 years of age and have completed eighth grade or be 14 years of age.

NRA Co-Op Muzzleloading Rifle Certified Instructor

An NRA certified Co-Op muzzleloading rifle OR an NRA/NMLRA certified muzzleloading instructor is required to provide supervision for BSA muzzleloading rifle shooting activities involving Scouts BSA, Venturers, and Sea Scouts.

NRA/National MuzzleLoading Rifle Association Certified Muzzleloading Rifle Instructor

The NRA certified co-op muzzleloading rifle or full NRA/NMLRA muzzleloading instructor is required to provide supervision for Scouting America muzzleloading rifle shooting activities involving Scouts BSA, Venturers, and Sea Scouts.

The NRA Co-Op muzzleloading rifle instructor or the NRA/NMLRA muzzleloading instructor may teach the NRA Basic Co-Op Muzzleloading Rifle Shooting Course and the muzzleloading option of the Rifle Shooting merit badge.

The NRA co-op muzzleloading rifle instructor may teach the NRA Basic Co-op Muzzleloading Rifle Shooting Course, and the Muzzleloading option of the Rifle Shooting merit badge.

NRA/National MuzzleLoading Rifle Association Certified Instructor

An NRA/NMLRA certified muzzleloading instructor is required to provide supervision for Scouting America muzzleloading shotgun shooting activities involving Scouts BSA, Venturers, and Sea Scouts.

The NRA/NMLRA muzzleloading instructor may teach the NRA Basic Muzzleloading Shooting Course and the muzzleloading option of the Shotgun Shooting merit badge.

The NRA/NMLRA muzzleloading instructor may teach the NRA Basic Muzzleloading Shooting Course to Venturers and Sea Scouts.

NRA Range Safety Officer

An NRA Range Safety Officer is required to provide live firing range supervision for all shooting activities involving Scouts BSA, Venturers, and Sea Scouts. No other certification is accepted.

The NRA Range Safety Officer is responsible for the range management.

NRA Chief Range Safety Officer

An NRA chief Range Safety Officer or an NRA training counselor is qualified to teach the NRA basic Range Safety Officer course. The Chief Range Safety Officer may also assist Scouting activities in the role of the Range Safety Officer.

NRA Training Counselor

Qualified, experienced, certified instructors may apply for appointment as a training counselor to recruit and train new instructors to teach basic firearms training courses. For information about becoming a NRA training counselor visit www.nrainstructors.org.

Archery Training

USA Archery Level 1 Instructor

The USA Archery Level 1 Instructor Certification course is administered by USA Archery, the national governing body for the Sport of Archery in the U.S., USA Archery, the National Field Archery Association and the Archery Shooters Association jointly recognize all certification levels.

Candidates for the USA Archery Level 1 instructor certification are primarily camp archery staff and those working with entry-level students. The USA Level 1 Archery Instructor Certification Course provides

graduates the necessary tools to maintain a high level of safety both on and off the archery range. The Level 1 Instructor will learn about range safety, range setup, the steps of shooting, equipment and repair, programs and lesson plans and is well prepared to teach beginner archery programs to people of all ages and abilities in a variety of disciplines.

USA Archery Level 1 Archery Instructors may teach the Basic Archery course and the Archery merit badge.

In addition, the certified instructor may serve as a Rangemaster for a Cub Scout archery activity.

USA Archery Level 2 Instructor

The Level 2 Archery Instructor Certification Course includes the USA Level 1 Archery Instructor Certification Course and provides students with an introduction to the National Training System (NTS) Steps of Shooting for recurve and compound, equipment and accessory setup, athlete development and events. Candidates for the Level 2 instructor certification are instructors age 18 and older and Level 2 instructors may also take an online course to become a USA Archery Instructor Trainer so that they may train USA Archery Level 1 and USA Archery Level 2 instructors.

Glossary

action. A group of moving parts used to cock, compress air (in some models), load, fire, and unload an air gun.

anchor point. The particular spot on the archer's face to which the index finger comes on the draw to give consistency to shooting.

arm guard. A piece of leather or plastic that is worn on the inside of the forearm to protect the arm from the bowstring.

arrow plate. A substance on the side of the bow to give point contact with the arrow.

arrow rest. An extraneous device on the bow to provide point contact; also a resting point.

back. The side of the bow that is away from the shooter.

BB. The term BB is used to describe spherical steel pellets that are .177 inch (4.5 mm) in diameter. However, steel BBs actually have a maximum diameter of .175 inch. BB projectiles for air guns should not be confused with the .181-inch-diameter BB pellets used in shotgun shells.

blunt. A blunt-tipped arrow, often used for small game.

bolt. A hard, metal projectile with a sharp, pointed nose and plastic fins inserted in the rear portion of the projectile.

bore. The inside of the barrel of a gun.

bow arm. The arm that holds the bow (not the string).

bow sight. A device attached to the bow that allows the shooter to sight directly on the target (which cannot be done with the arrow tip except at point-blank range).

bowstring. The string of a bow, usually made of Dacron.

broadhead. An arrow with a sharpened metal tip for hunting live game.

butt. A backstop for holding arrows shot at a target. The shoulder end of a rifle stock.

caliber. The diameter of a projectile, the distance between the lands in a rifled barrel, or the bore diameter in a smoothbore barrel.

cant. The act of holding the bow tilted or slightly turned while shooting.

cast. The distance a bow can shoot an arrow.

CO₂ cylinder or tank. A metal cylinder tank that contains carbon dioxide gas (CO₂). Available in small disposable cylinders for insertion in some models of CO₂ pneumatic air guns; also available in large tanks that are used to charge refillable cylinders and internal gas reservoirs in other models.

cocking lever. The part of a spring-piston air gun used to cock a spring-loaded piston that compresses air at the instant of firing.

compressed CO₂ /air pneumatic gun. A type of air gun using carbon dioxide gas (CO₂) or air that has been compressed and stored in a metal cylinder, or air that is compressed by an external air pump. This type of air gun allows the firing of multiple shots without recharging.

creeping. Letting the string hand edge forward before release.

crest. Paint or decoration on the arrow shaft near the feathers.

cylindrical pellets. A cylindrically shaped air gun pellet that usually has a raised band encircling its base to act as an air seal.

dart. A hard metal projectile with a sharp pointed nose and organic or artificial hair or feathers inserted in the rear portion of the projectile.

dieseling. The ignition and detonation of low-flash point lubricants due to the high temperature generated during the rapid compression of air in a spring-piston air gun.

draw. The acting of pulling the bowstring back into the anchor position.

drawing arm. The arm that draws back the bowstring.

drift. Natural deflection of an arrow from its normal path due to outside factors, such as wind.

end. A specified number of arrows shot at one time (or from one position) before retrieving.

end loop. The part of the string that fits over the bow nock.

face. The part of the bow facing the shooter; also a target face.

fast. An expression used to warn people of arrows being shot.

field archery. A competitive round shot at various distances and laid out like a golf course.

field arrow. An arrow with a field point; used outdoors for field archery, stump shooting, roving, and small game.

finger tab. A tab worn on the drawing hand to protect the fingers and give a smooth release of the bowstring.

fletching. The feathers of the arrow that give guidance to the arrow's flight.

flight. A competitive round of shooting for distance; also, the path of an arrow.

forearm. The part of the arm between the elbow and the wrist.

free style. Shooting with the aid of a bow sight.

front sight. The sight on the muzzle of a gun.

glove. A covering worn to protect the fingers from the string.

grooves. The shallow, spiral cuts in a bore that, together with the lands, make up the rifling in the bore of a barrel.

handle riser. The center part of the bow.

head. The tip or point of the arrow.

hold. The act of gripping the bow; hesitating at full draw.

index. The raised piece of plastic on the nock of an arrow that is in line with the cock feather.

index vain. The arrow feather at right angles to the nock; often of a different color than the other feathers.

instinctive shooting. Aiming and shooting arrows instinctively rather than using the pre-gap or point-of-aim methods or a bow sight.

jerking. Letting the drawing hand jerk too far back as the arrow is released.

kick. The recoil of the bowstring and bow after the arrow is released.

laminate. A composite bow, usually of wood and fiberglass.

lands. The ridges of metal between the grooves in a rifled barrel.

limbs. The two ends of a bow, from the handle riser out.

longbow. A bow with no recurve.

multi-pump pneumatic air gun. A type of pneumatic air gun that uses several strokes of a lever to compress and store enough air in a reservoir or chamber for one shot.

muzzle. The front end of the barrel from which a projectile exits.

NRA. National Rifle Association.

nock. The groove in the end of the arrow in which the bowstring fits; also, the groove at each end of the bow which holds the bowstring in place.

nock locator. The material on the bowstring used to indicate the exact nocking point for the arrow.

nocking point. The marked place on the bowstring where the arrow nock is placed before drawing and releasing.

over-bowed. Using a bow that is too heavy for the individual.

overdraw. Drawing the arrow back too far so that the tip passes the face of the bow. This is a dangerous practice.

pellet rifle. A gun that propels a projectile through its barrel by use of compressed air or carbon dioxide gas (CO₂). Gunpowder is not used in this type of gun.

plinking. Informal shooting at a variety of targets.

pneumatic air gun. A type of air gun that uses stored compressed air. Divided into two subcategories: single-stroke or multi-pump pneumatics and air pneumatics.

point. The tip on the end of the arrow.

point-blank range. The only distance from the target at which the point-of-aim is right on the target center.

point-of-aim. A method of aiming using a point, usually in front of the target, with which the point of the arrow is aligned; allows for trajectory of the arrow.

pre-gap (pre-draw gap). A method of aiming.

projectile. A body projected forward such as a bullet from a gun.

quiver. A container to hold arrows; can be ground, back, side, or pocket type.

range officer. A trained, certified, on-site adult who directs the operation of a range program in a shooting sport.

rear sight. The sight nearest the breech of a gun.

recurve. A bow that is curved on the ends.

reflexed bow. A bow with limb ends curving toward the back rather than toward the face of the bow.

release. The act of letting the bowstring slip off the fingertips.

rifling. Spiral grooves and lands in the barrel bore that provide a stabilizing spin to a projectile so that it will be more accurate in flight.

roving. An outdoor game played by two or more in which natural targets such as stumps, trees, or bushes are selected for accuracy competition.

self arrow. An arrow made entirely of one piece of wood.

self bow. A bow made entirely of one piece of wood, as opposed to other types of bows such as laminate.

serving. The thread wrapped about the bowstring to prevent fraying of the string.

shaft. The middle of an arrow; an unfletched arrow.

shelf. The place on the bow where the arrow rests.

shooting sports director. The person who has overall responsibility for the operation of the shooting program for council camps and activities.

sight alignment. The relationship between the front and rear sights, where the shooter sees that the post bead, disc, or front sight device is aligned properly with the rear sight.

sights. Mechanical, optical, or electronic devices used to align the axis of the barrel on the target.

sinking. The gradual loss of a bow's power.

single-stroke pneumatic air gun. A type of pneumatic air gun that uses one stroke of a lever to compress and store enough air in a reservoir or chamber for one shot.

small of stock. The narrow part of a rifle stock.

smoothbore. An informal name for a gun that has a smoothbore barrel.

smoothbore barrel. A barrel that does not contain rifling.

solid bow. A common reference to a bow that is made entirely of fiberglass or plastics.

spring-piston air gun. A type of air gun that uses a manually operated lever or other device to cock a spring-loaded piston, which compresses air at the instant of firing. The air that propels the projectile is not stored in a reservoir prior to firing.

stance. A standing position assumed when shooting an arrow.

stock. The wooden or metal piece to which the barrel or mechanism of a rifle are attached.

string. Preparing a bow for shooting; also, the bowstring.

string fingers. The three fingers used to draw back the bowstring.

string height. The distance between the bow and the bowstring at the handle.

strung bow. A bow that is ready to shoot.

target archery. A competitive round shot at affixed distances in an open area.

target arrow. A lightweight arrow with a target point.

throwing. Moving the bow hand to the left upon release.

understrung. A bow with a bowstring that is too long.

vane. A plastic fletching on an arrow.

weight. The amount of effort (in pounds) required to draw the bow a given length (normally measured at 28 inches).

weight in hand. The actual weight of the bow.

windage. The amount of drift in the flight of an arrow caused by wind.

wobble. The erratic motion of a flying arrow.

APPENDIX 6 - PROHIBITED ACTIVITIES

To review all Scouting America unauthorized activities,
please visit <https://www.scouting.org/health-and-safety/gss/gss07/>

APPENDIX 17 - SPORTING ARROWS

Archery Range Considerations for Laporte's Bowtrap System

The following parameters of the program and site requirements must be followed as outlined in order to execute the program correctly. At this time, the only equipment to be used with the Laporte Bowtrap System is a bow with a maximum of a 26-pound pull and the Laporte proprietary safety arrows, or "Fluflu Arrows."

Purpose & Scope: This Design Guideline will address the basic parameters of the range or area that will be used for sporting arrows. "Sporting Arrows" was introduced to the Scouting community at the 2017 National Scout Jamboree. This is a program is only for Scouts BSA members, Venturers and Sea Scouts. This is a new archery game where Scouts fire at foam disk that are launched in the air or rolled along the ground by a proprietary "Bowtrap" manufactured by Laporte <https://www.laporte.biz/en-us/archery/>.



This Design Guideline is based on the use of a maximum of a 26-pound bow with Laporte's proprietary safety arrows, or "Flu-flu Arrows", and winds of 30 miles per hour or less. Laporte's proprietary safety arrows, or "Flu-flu Arrows", are design to be used with these foam targets and have a maximum range of 190 feet (see Drawing No. 1).

Fall Areas: Because archers will be shooting at various angles, a 180 degree safety area, referred to as a fall area shall be fenced or marked in such a way to prevent people from accidentally walking into the sporting arrow range. The majority of the arrows will fall in the primary fall area, a 90 degree area centered in front of the shooters. This area should be clear of trees to ensure safety and help with the recovery of the arrows. It is permissible to have trees or other tall vegetation in the side fall areas, but they should be cleared if possible. The perimeter of this fall area shall be clearly marked. This could be permanent fence or a temporary fence/caution line. Permanent and temporary fences should be clearly marked and labeled to prevent people from accidentally walking on the range. Temporary fences should be installed in such a way that it will survive a weekend of activity and weather.

Supervisory Personnel: There should be a ratio of 1 Level I Archery instructor supervising up to 3 shooters on the range. Only 3 shooters allowed at one time on the range per Design Guideline 316 found at <https://www.scouting.org/outdoor-programs/properties/resources/design-guidelines/>. The Level I Archery instructor must be a minimum of 18 years old. This applies to year-round use of the sporting arrows program, both summer resident and year-round camping.

If a council is in need of locating a Level I Archery instructor, there is a USA Archery website which lists who they are and where they are in the country. At this site, you can also find where the training opportunities are offered to get this certification.

Go to: <http://www.teamusa.org/USA-Archery/Coaching/Find-an-Instructor-or-Coach>

References:

APPENDIX 18 - CUB SCOUT RANGE AND TARGET ACTIVITIES ADVENTURE LESSON PLANS

A Guide to the Cub Scout Range and Target Activities Adventures for Unit Leaders, Councils, Districts, and Range Masters

PREFACE

Cub Scout range and target activities programs may be conducted only on a district or council level. Archery, BB gun shooting, and slingshot shooting are restricted to day camps, Cub Scout/Webelos Scout resident camps, council-managed family camping programs, or council activities where there are properly trained supervisors and where all standards for Scouting America range and target activities are enforced. All shooting ranges in the Cub Scout program must be supervised by a qualified Rangemaster who is at least 18 years of age and meets the minimum requirements. See specific qualifications and training requirements for Cub Scout Range and Target Activities Rangemasters in the *Scouting America Range and Target Activities Manual*, No. 430-938.

USING THIS GUIDE

- Archery, BB gun shooting, and slingshot shooting are not approved unit activities.
- The use of pellet air rifles is restricted to Webelos Scouts and Arrow of Light Scouts in a Boy Scouts of America resident camp setting only.
- Kindergarten–age youth in the Lion program may participate in Cub Scout archery or slingshot activities.
- **Airsoft guns are not approved for use in the Cub Scout range and target activities program.**
- **All local, state, and federal laws for BB guns, archery, and slingshot shooting must be followed.**

This *Cub Scout Range and Target Activities Guide* is intended to assist leaders in helping their Cub Scouts earn the shooting sports awards. It is not a substitute for authorized Rangemaster training or for the safety procedures called out in the *Scouting America Range & Target Activities Manual*, No. 430-938, which is the reference for any range and target activities in Scouting America.

All volunteers participating in official Scouting activities should become familiar with the *Guide to Safe Scouting*. The Guide to Safe Scouting may be found online at www.scouting.org/scoutsources/HealthandSafety/GSS.



SECTION I: INTRODUCTION

The goal of this guide is to support range and target activities directors, Rangemasters, and on-range adult volunteers as they assist Cub Scouts in meeting the requirements of the Cub Scout range and target activities adventures according to Scouting America policy and practice. This resources supports — but does not replace — the *Scouting America Range and Target Activities Manual*.

The Cub Scouting range and target activities disciplines of archery, BB gun shooting, and slingshot shooting are restricted to day camps, Cub Scout/Webelos Scout resident camps, council-managed family camping programs, or council activities held on or off Scouting America property where there are current and properly trained Scouting America Rangemasters and where all standards for Scouting America Range and Target Activities are enforced.

Purpose of the Cub Scout Range and Target Activities Adventures

As decades of Cub Scouting have shown, most youth love to shoot!

Beyond capturing that enthusiasm, the Scouting America created the Cub Scout range and target activities adventures program to encourage in Cub Scouts the development of safe shooting practices and proficiency. As Cub Scouts participate in range and target activities and work toward an award, they not only build confidence in their abilities, but also develop self-reliance, sportsmanship, and conservation awareness — all elements of good character valued in Scouting.

Through experiential learning guided by a knowledgeable adult, Cub Scouts will learn the safe and responsible use of BB guns, slingshots, and archery equipment. The goal is for the Cub Scout to have fun in a safe environment, not to become an expert marksman, Rangemaster, or hunter.

Lions, Tigers: Range and Target Activities

Lions and their adult partners may participate in archery or slingshot range and target activities. Tigers and their adult partners may participate in all Cub Scouting range and target activities. The adult partners must be included in all shooting activities. Each Lion/Tiger must be paired with their adult partner before being allowed to shoot. In most cases, Lions/Tigers and their adult partners will participate in range and target activities at a day camp.

Keep in mind that youth of this age have very short attention spans (20 to 30 minutes, maximum) and tire easily. They probably have little experience working as a group and may require more time to understand how the range operates. Lions/Tigers have a wide range of ability and experience levels, so be ready for anything!

Structure of the Cub Scout Range and Target Activities Adventures

Cub Scout range and target activities adventures may be earned for any of the three following disciplines:

- Archery
- BB guns (available only for Tiger through Arrow of Light ranks.)
- Slingshots

A Cub Scout may choose to participate in only one of the disciplines or may choose to participate in all three disciplines. The requirements for each of the disciplines are structured similarly.

CUB SCOUT SLINGSHOT ADVENTURE

LESSON PLAN

PURPOSE

This lesson plan is provided for rangemasters to teach the Slingshot Adventures at a council-sponsored long-term camp, short-term camp, day camp or one day activity. The Slingshot Adventures are available for each Cub Scout rank.

Units are not authorized to hold range and target activities at the den or pack level. The information in this lesson plan is not meant to replace any information in the *National Range and Target Manual* or the *Guide to Safe Scouting*.

This lesson plan was developed as a guide for a 5-session day camp or twilight camp experience with (5) 45-minute sessions. The rangemaster may adjust this plan to meet the event's program schedule if the requirements are met as written.

The Slingshot Adventure is an ideal range activity for day camps lasting less than 5 days or even one day events. Suggestions for other events and mixed age dens are at the end of this lesson plan.

Lion Scouts and Tiger Scouts must have their adult partner with them while at the slingshot range.

NOTE: When the word 'demonstrate' is used in a requirement, a simple demonstration made by the Cub Scout showing their understanding will serve as meeting that requirement. Where the word 'discover' is used in a requirement, explanation accompanied by visual aids will serve as meeting that requirement. When appropriate, some demonstrations/discussions can be held away from the firing line. Each Cub Scout should do their best based on their physical abilities.

REQUIREMENTS FOR ALL RANKS

1. Identify and wear appropriate safety gear. (Lions and Tigers: with the help of their adult partner.)
2. Recite the safety rules for using a slingshot. (Lions and Tigers: with the help of their adult partner)
3. Demonstrate proper range commands. (Lions and Tigers: with the help of their adult partner. Additionally, Webelos and Arrow of Light will "Demonstrate proper range commands and explain them to an adult or to another Scout")
4. Explore the parts of a slingshot and their proper usage. (Lions and Tigers: with the help of their adult partner)
5. Discover the types of ammunition that may be used and types that may not be used. (Lions and Tigers: with the help of their adult partner)

6. Bear, Webelos, Arrow of Light - Discover the types of targets that may be used and types that may not be used. (Note: not required for Lion, Tiger, or Wolf but the information may be presented)

7. Shooting Requirements:

Lion	Shoot 2 shots at a target. Repeat and do your best to improve your score. Shoot at least 4 shots.
Tiger	Shoot 3 shots at a target. Repeat and do your best to improve your score. Shoot at least 6 shots.
Wolf	Shoot 5 shots at a target. Repeat and do your best to improve your score. Shoot at least 10 shots.
Bear	Shoot 5 shots at a target. Repeat twice and do your best to improve your score each time. Shoot at least 15 shots.
Webelos	Shoot 5 shots at a target. Repeat twice and do your best to improve your score each time. Shoot at least 15 shots.
Arrow of Light	Shoot 5 shots at a target. Repeat three times and do your best to improve your score each time. Shoot at least 20 shots.

8. Discuss how to put away and properly store your slingshot and shooting equipment after use. (For Lion, Tiger, and Wolf, this is the 7th requirement; however, throughout this plan this requirement will be called Requirement 8.)

SESSION I (45 MINUTES)

PREPARATION & MATERIALS NEEDED

- Safety rules posters
- Appropriate safety equipment as specified in the *National Range and Target Manual*
- Appropriate slingshot equipment as specified in the *National Range and Target Manual*
- Approved targets

TOPIC: GEAR & SAFETY

It is important that Cub Scouts learn the importance of safety rules while participating in range and target activities and the need for appropriate safety gear.

- Participants and range staff must wear eye protection (safety glasses) when the slingshot range is used.

To prepare the Cub Scouts for being on the shooting line, please do the following:

- Identify and demonstrate how to properly wear the safety equipment. (Requirement 1)
- Explain the range safety rules and range commands. It is important that the Rangemaster gets feedback

from the group to ensure complete understanding of the safety rules and range commands. Lions and Tigers will have assistance from their adult partner. Note: Webelos and Arrow Light have an added requirement to explain range commands to an adult or another Scout. (Requirements 2-3).

- Discuss the types of ammunition that may and may not be used. (Requirement 5)
- Discuss the types of targets that may and may not be used. This is not required for Lion, Tiger, or Wolf, but is useful information for them to have. (Requirement 6 for Bear, Webelos and Arrow of Light)

Move the group to the shooting line to do the following:

- Show and explain the main parts of the shooting equipment and how to safely use. (Requirement 4)
- Demonstrate proper stance and shooting techniques. Allow Cub Scouts to shoot for the remaining time in the session. (Requirement 7)

Requirements 1-6 (plus requirement 7 depending on the participant's den level and time allotted) should be complete after this session.

Note: This session is important because it establishes the basis for range safety and understanding range commands, but it is equally important that the Cub Scouts get to shoot before leaving the session.

SESSION 2 [45 MINUTES]

PREPARATION & MATERIALS NEEDED

- Safety rules posters
- Appropriate safety equipment as specified in the *National Range and Target Manual*
- Appropriate slingshot equipment as specified in the *National Range and Target Manual*
- Approved targets

TOPIC: RANGE ACTIVITY

Review the range safety rules and range commands. To engage the Cub Scouts, ask them to explain the rules and range commands in their own words (rather than telling them).

- Cub Scouts shoot and attempt to complete requirement 7.
- Discuss how to put away and properly store your slingshot and shooting equipment after use. (Requirement 8)

Requirements 7-8 should be complete after this session.

SESSION 3 [45 MINUTES]

PREPARATION & MATERIALS NEEDED

- Safety rules posters
- Appropriate safety equipment as specified in the *National Range and Target Manual*
- Appropriate slingshot equipment as specified in the *National Range and Target Manual*
- Approved targets

TOPIC: RANGE ACTIVITY

Review the range safety rules and range commands. To engage the Cub Scouts, ask them to explain the rules and range commands in their own words (rather than telling them).

- Cub Scouts continue to shoot. If requirement 7 was not completed during the previous session, those Cub Scouts may continue working on that requirement.
- If requirement 7 was completed during the previous session, Scouts should be encouraged to enjoy their time on the range by participating in an open shoot or may attempt a more difficult course of fire (i.e., reactive targets such as cow bells or spinning targets, smaller targets, more distant targets).

SESSION 4 [45 MINUTES]

PREPARATION & MATERIALS NEEDED

- Safety rules posters
- Appropriate safety equipment as specified in the *National Range and Target Manual*
- Appropriate slingshot equipment as specified in the *National Range and Target Manual*
- Approved targets

TOPIC: RANGE ACTIVITY

Review the range safety rules and range commands. To engage the Cub Scouts, ask them to explain the rules and range commands in their own words (rather than telling them).

- Cub Scouts continue to shoot. If requirement 7 was not completed during the previous session, those Cub Scouts may continue working on that requirement.
- If requirement 7 was completed during the previous session, Scouts should be encouraged to enjoy their time on the range by participating in an open shoot or may attempt a more difficult course of fire (i.e., reactive targets such as cow bells or spinning targets, smaller targets, more distant targets).

SESSION 5 [45 MINUTES]

PREPARATION & MATERIALS NEEDED

- Safety rules posters
- Appropriate safety equipment as specified in the *National Range and Target Manual*
- Appropriate slingshot equipment as specified in the *National Range and Target Manual*
- Approved targets

TOPIC: RANGE ACTIVITY

Review the range safety rules and range commands. To engage the Cub Scouts, ask them to explain the rules and range commands in their own words (rather than telling them).

- Cub Scouts continue to shoot. If requirement 7 was not completed during the previous session, those Cub Scouts may continue working on that requirement.
- If requirement 7 was completed during the previous session, Scouts should be encouraged to enjoy their time on the range by participating in an open shoot or may attempt a more difficult course of fire (i.e., reactive targets such as cow bells or spinning targets, smaller targets, more distant targets).

RANGE REQUIREMENTS

SLINGSHOT RANGE SET-UP

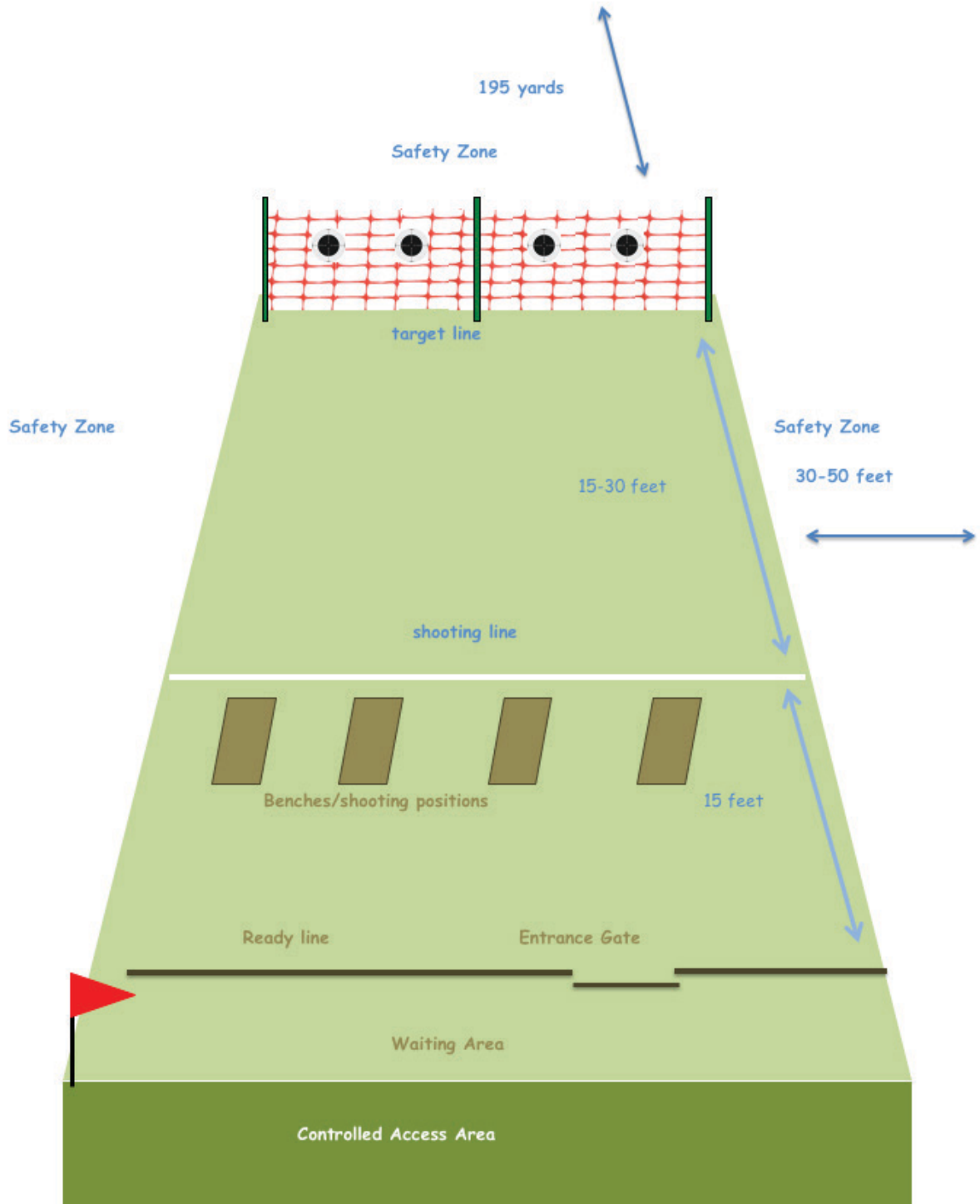
Slingshot program may utilize an approved BB gun or an approved archery range.

1. Select the orientation of the range
 - a. Avoid shooting into the sun by facing North
 - b. The ground should be flat and free of obstacles
 - c. Look for a natural backstop such as a berm to stop BB's, or a ballistic cloth or double layer, heavy duty tarp capable of stopping a bb as a trap. If there is no berm, provide a minimum of 195 yards of open area behind the targets.
 - d. The safety zone on the side should be 30-50 feet.
2. Place range and safety lines
 - a. Rope, eco-friendly spray paint or chalk are ways to lay down the range lines outdoors. Follow the guidelines illustrated in the *National Range and Target Manual*.
 - b. Shooting Line – The shooting line is 15 to 30 feet from the target line depending on the skill level of the participants.
 - c. Waiting Line – Shooters stand behind the waiting line before and after shooting their slingshot. It is meant to act as a safety area between the class and the shooting line. The waiting line is placed 15 feet behind the shooting line.

OPTIONAL: Controlled Access/Spectator Line – Anyone who wants to watch participants shoot can gather behind this line. This line needs to be placed far enough behind the waiting line to prevent distraction from the spectators (at minimum 15 feet)

3. Set-up targets
 - a. Place targets in front of the natural berm. If a natural berm is not available, place targets in a wide-open space with a minimum safety zone of 150 feet behind the targets.
 - b. Evenly space targets in front of the berm. Space between targets is dependent on placement of shooting positions.
 - c. One method of hanging targets is to put up posts to hold “snow fence.” Attach the snow fence to the posts. Targets can be attached to the snow fence with clothes pins.
 - d. A temporary target holder can be made using yard signs with wire ground stands.
4. Place the equipment
 - a. Eye protection should be available in the waiting area. All participants on the range must wear eye protection.
 - b. Slingshots – May be on the top of the bench if using the bench rest position, or on the mat used for the prone positions. If shooters are shooting from the standing position, there should be some type of stand where slingshots may be placed when not in use.
 - c. Ammunition – Should be stored in a secure location between the shooting line and the ready line under the supervision of the rangemaster.

OUTDOOR RANGE LAYOUT: WIDE OPEN SPACE



SUGGESTIONS

Based on the format of your event, there might not be enough time in the program schedule to utilize 5 sessions to complete the Slingshot Adventure. You may also have dens with mixed ages and levels of knowledge and/or ability. There are times when a Cub Scout can attend only a few days of a day camp, so adjustments will need to be made.

Take the time to read the requirements, evaluate the number and the length of the sessions the event will have so you can determine what should be presented in the time allotted.

It is possible the adventure could be completed within 2 sessions or less depending on your event's program design:

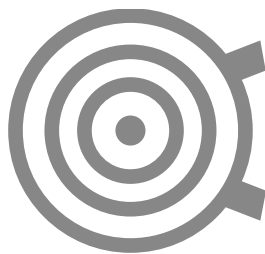
- Length of each session
- Age of participants
- Experience level of the participants
- Number of participants in each den

MIXED-AGED DENS

When dealing with dens of mixed ages, consider moving the more experienced participants (the older Scouts who have attended a range activity previously) to the shooting line after the safety briefing to begin their course of fire. The less experienced Scouts can then spend time learning range commands, how to use the safety equipment and how to use the slingshot equipment. This same method may be applied with larger groups. You may be required to recruit additional trained staff to maintain range supervision ratios.

PARTIAL COMPLETION OF THE REQUIREMENTS

Depending on the type of event (i.e., one-day event) it is possible the adventure requirements may not be completed in their entirety. If this is the case, each participant should be given a list of the requirements completed so that they can bring it to the next council-sponsored event they attend.



GENERAL SHOOTING RANGE RULES

1. This range may be opened only by a qualified Scouting America-certified range master.
2. All commands issued by the range master must be obeyed immediately.
3. Stay behind the firing line. Do not straddle the firing line.
4. Do not pick up a gun, bow, arrow, or slingshot unless told to by the range master.
5. Absolutely no running on the range.
6. No horseplay or unnecessary talking on the range.
7. If in doubt about the rules, ask your leader or range master for advice or help.



EYE DOMINANCE

Eye dominance is the unconscious preference to use one eye rather than the other to aim. The dominant eye often corresponds with the archer's dominant hand, but not always. There are a number of people who are "cross dominant," meaning they may be right-hand dominant and left-eye dominant, or vice versa.

It is important to understand how to determine eye dominance in the event a shooter or archer is struggling to aim or hit the target consistently. Eye dominance needs to be addressed when a shooter or archer is shooting with their dominant hand, but trying to aim with their opposite dominant eye. They may try to line up their dominant eye to the target by tipping their head over the bow or gun, causing their shots to be consistently left or right of center on the target.

To Find the Dominant Eye

Important Note: It is not necessary to make a Cub Scout who is cross dominant shoot with the non-dominant hand. The shooter may simply choose to continue shooting with the dominant hand and cover or close the non-dominant eye.

To find which eye is dominant, have participants extend both arms in front of them and form a small hole with their thumbs and index fingers. Instruct them to look at a distant object through the opening and then pull their hands back to their face. The eye that is in line with the object is dominant.





GENERAL SLINGSHOT RANGE COMMANDS

LOAD.

LOAD YOUR SLINGSHOT.

READY ON THE FIRING LINE.

ALL SHOOTERS ARE READY.

COMMENCE FIRING.

YOU MAY FIRE YOUR SLINGSHOT.

CEASE FIRING.

STOP SHOOTING.



GENERAL SLINGSHOT RANGE RULES

1. This range may be opened only by a certified Cub Scout shooting sports range master.
2. All commands issued by the range master must be obeyed immediately.
3. Stay behind the firing line. Do not straddle the firing line.
4. Do not pick up a slingshot unless told to by the range master.
5. Absolutely no running on the range.
6. No horseplay or unnecessary talking on the range.
7. If in doubt about the rules, ask your leader or range master for advice or help.

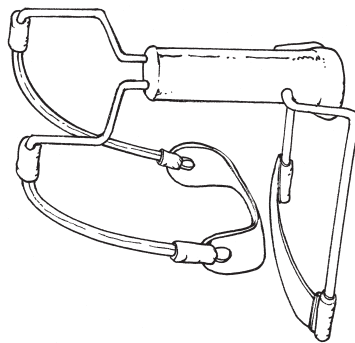


SLINGSHOT SAFETY RULES

ALWAYS KEEP THE SLINGSHOT POINTED IN A SAFE DIRECTION. YOUR RANGE MASTER WILL TELL YOU WHAT DIRECTION IS SAFE. IF YOU ARE NOT SURE, ASK.

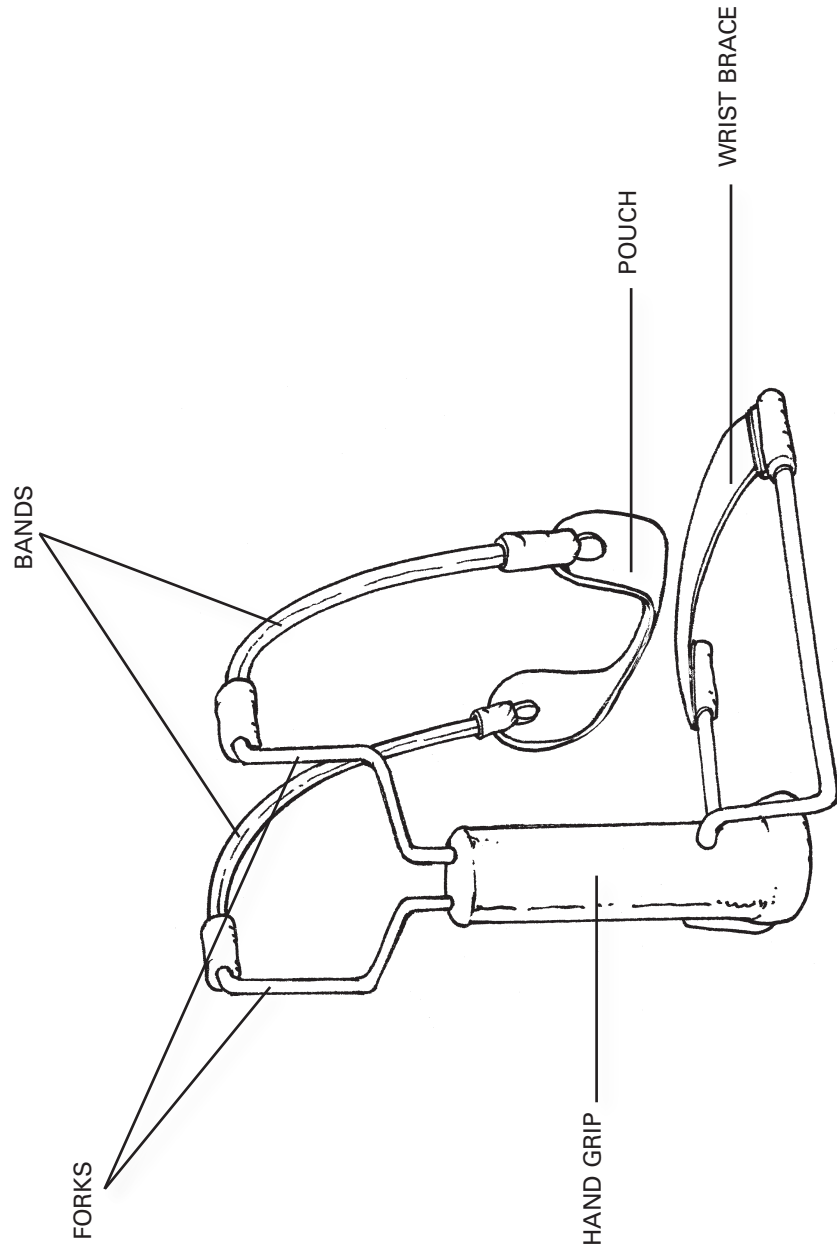
ALWAYS KEEP THE BANDS AT REST UNTIL YOU ARE READY TO SHOOT.

ALWAYS KEEP THE POUCH AMMUNITION FREE UNTIL READY TO USE.





PARTS OF A SLINGSHOT



APPENDIX 2: ADDITIONAL ACTIVITIES

Range and Target Activities Program Ideas

Range and target activities in Cub Scouting are operated by local councils and districts. The suggestions here are designed for use at council- and district-sponsored events that provide range and target opportunities.

The activities described below can be used with slingshots, archery equipment, and BB guns. An important practice across all of Scouting is that we do not use targets that feature human beings or animals.

Targets for BBs, arrows, and slingshots can be made from a variety of materials, including paper, cans, plastic bottles, and balloons. Paper targets can be home-made or purchased. Cans are excellent as they make a great sound when hit. Cans, plastic bottles, and balloons can be hung from strings or attached to netting.

The distance between the shooter and the target can be varied depending on the shooter's level of experience. The distance can be increased as skills improve.

Fun Target Activities for BB Shooting

Target Squares

Make 8.5-by-11-inch targets with several squares on each. Put a number in each square. Shooters can see the squares but not the numbers in them. After firing at the page, the shooter adds up the numbers from the squares that his or her BBs hit. The highest score is the winner.

Mystery Dots

Place dots on a target, then shoot at the back side of the target. Count the score from the dotted side.

BB Tic-Tac-Toe

Place three rows of three balloons on a target mat. Divide the group into two lines and have them stand in a single file 20 feet from the target. At the signal to shoot, each shooter will shoot one BB and step back. The second and each succeeding person will shoot one at a time. The first team to break three balloons in any line is the winning team.

Cracker Shoot

Set up crackers as targets. Have participants shoot at the narrow edges of the crackers.

Action BB Gun Shooting Course

Set up an action BB gun shooting course using several games or targets as different stations in the course. Each station could encourage the shooters to use a different shooting position. One station could be used to do maintenance work for the BB gun shooting program.

Fun Target Ideas for Archery Shooting

Archery Tic-Tac-Toe

Place three rows of three balloons on a target mat. Divide the group into two lines and have them stand in a single file 20 feet from the target. At the signal to shoot, each archer will shoot one arrow and step back. The second and each succeeding person will shoot one at a time. The first team to break three balloons in any line is the winning team.

Wand Shooting

Place a strip of 1-inch masking tape over the target face from top to bottom. A point is scored when an arrow hits the tape anywhere on the target. Divide the group into two lines, and have them stand in a single file 20 feet from the target. At the signal to shoot, each archer will shoot one arrow and step back. The second and each succeeding person will shoot one at a time. The first team to get two points is the winning team.

Shoot the Monster

Participants shoot at a one-gallon plastic bottle, suspended with shock cord within a tire and painted to look like a monster. The object is to hit the plastic bottle. This event can be scored individually or by den or pack.

Ring the Bell

Participants shoot at bells through the open end of swinging tires. All tires are swung in unison with a rope tied to the bottom of each tire and extended to an area beyond the limits of firing on the side.

Football Placekick

A scaled-down goalpost is erected behind a 4-foot-high canvas sheet. From the firing line the archer can see only the top portion of the goalpost uprights. An arrow shot between the uprights above the crossbar scores as a field goal (three points), while an arrow that passes over the canvas and under the crossbar scores as a touchdown (six points). A raised platform should be set up adjacent to the shooting positions so an observer can determine the scoring, since the archer is not able to see the lower portion of the goalposts.

Archery Practice Fun

Any station set up for youth to practice skills is a fun station for the Cub Scouts. The program allows limited times to shoot arrows, so the opportunity to practice at a council camp or event is a great experience for them. A practice station is a simple, basic archery range, but a very fun one for the Scouts.

Archery stations could also be set up to practice stringing bows or to learn how to care for some of the equipment. Helping with some of the archery equipment could be a rainy day activity.

Action Archery Course

An action archery course could be set up using several of these games as different stations in the course. A drawing of a sample action archery course is available in the *Scouting America Range and Target Activities Manual*.

Fun Target Ideas for Slingshot Shooting

Feed the Monster

Using a large piece of cardboard, sketch a monster. Cut a hole where the monster's mouth is located. Aim to feed the monster.

Tin Can Alley

Hang tin cans from string. Place them at various heights and distances from the shooting line.

Tire Target

Hang tires (or hoops) at different heights and distances from the shooting line.

Ring-a-Ding

Hang bells from strings. Shoot to strike the bells.

Chart Paper Target

Create a large target with chart paper. Draw circles of different sizes on the chart paper. Apply different scores to the circles, with large circles being worth fewer points.

Slingshot Target Course

A target course could be set up using several of these games as different stations in the course. A drawing of a sample action archery course is available in the *Scouting America Range and Target Activities Manual* and can be adapted for a slingshot target course.

Bikathlon

The bikathlon event is modeled after the winter Olympic biathlon in which competitors cross-country ski and shoot rifles. In the bikathlon, the Cub Scouts bike around an off-road course, stop at various points, dismount from the bikes to shoot targets that fall over when struck, and then continue along the course. Though the sport requires a certain amount of strength for the biking portion, the shooting sports activity is the key to the event.

Setting Up the Course

Make the course approximately one-third of a mile in length, in the form of a loop so the starting line and a finishing line are in the same position. One point along the course becomes the firing line—with a separate position for each racer. Identify each firing point with a color, as assigned to each participant. Place a bike rack in a safe place with easy access. The course should not

be in a rocky area, and the instructors should walk it to ensure that all dangerous obstacles have been removed. The course can be an existing track or laid out with cones or rope guides to make sure each biker follows the same route.

Running the Race

The bicycle is ridden to the shooting point, the youth dismounts, parks the bike, and shoots the targets. The biker shoots at each target until it is hit and knocked over, then remounts the bike and finishes the race. A limit may be imposed on the number of shots for each target and a time penalty imposed if the target is not knocked over.

The youth finishing the race in the shortest time is declared the winner. The key to the event is not only to pedal fast, but also to shoot quickly and accurately.

Shooting is normally done from the standing position but may be changed at the range director's discretion.

Participants are never allowed to ride the course with the gun, arrows, or slingshots. These items are to remain at the firing point at all times.

Every participant is required to attend a brief orientation on bike safety and handling the shooting sports materials used on the course before being allowed to participate in the bikathlon.

This safety session should, as a minimum, cover the following:

- Course layout and general rules
- Range procedure and safety
- How the match is scored
- How to operate and load the guns
- Shooting safety and safe gun handling
- Basics of sighting and shooting
- Bicycle use and riding safety
- Hands-on practice as time, personnel, equipment, and facilities allow

Archery Range Rules and Commands

EQUIPMENT AND MATERIALS

- Bikes
- Elbow and knee guards
- Safety helmets
- Stopwatch or other timing device
- BB approach:
BB guns and BBs at each shooting station
Safety glasses to be worn at the firing line
- Archery approach:
Bow and quiver of arrows at each shooting station
- Slingshot approach:
Slingshot and ammunition at each shooting station
- Alternative:
Use all of the above at different stations.

PERSONNEL

Assign adults to the following positions:

- Match director (responsible for the event)
- Jury (three people who are responsible for solving any dispute that may arise during the match and to ensure compliance of the rules by participants)
- Rangemasters (responsible for safety on the range)
- Statistical officer (responsible for tracking participants' total lapse time)
- Starter (the official who starts each relay or heat)
- Other personnel needed are timers, first-aid personnel, course marshals, and repair personnel (for guns, arrows, slingshots, and/or bikes)
- One staff member at each station

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APPENDIX 19 - RESOURCES

People

- Who to call for help
 - Contact your local council's range and target activities committee chair
 - Scouting America:
outdoorprograms@scouting.org
- Local council websites
- The National Rifle Association
- Contact USA Archery, www.usarchery.org
- Contacts at the National Shooting Sports Foundation

Facilities

- Local council camps
- Local shooting sports clubs
 - National Wild Turkey Foundation, www.nwtf.org
 - Issac Walton League, www.iwla.org
- Local ranges
 - State wildlife ranges. Contact your local department of natural resources.
 - Law enforcement ranges
 - National Forest Service ranges
- Local gun and archery businesses
 - May have local range information

Materials/Literature

- National Rifle Association, www.nra.org
- National Archery in the Schools Program, www.naspschools.org
- National Sporting Clays Association, www.mynsca.com
- National Skeet Shooters Association, www.mynssa.com
- International Hunter Education Association, www.ihea-usa.org
- National Muzzle Loading Rifle Association, www.nmlra.org

Equipment

- National Shooting Sports Foundation, www.nssf.org
- Archery Trade Association, www.archerytrade.org
- Daisy, www.daisy.com
- Crosman, www.crosman.com
- Benelli, www.benelliusa.com
- Beretta USA, www.berettausa.com
- Browning, www.browning.com
- Remington, www.remington.com
- Winchester, www.winchester.com
- Federal Premium Ammunition, www.federalpremium.com

Programs

Advancement and recognitions

- Scouts BSA
 - Merit badges. Refer to Chapter 3, “Merit Badge Counselors,” rifle shooting, shotgun shooting, archery.
- Cub Scout
 - Cub Scout Range and Target Activities adventures (BB, Archery, Slingshot)
- Venturing
 - Ranger Award
 - Venturing Range Activities Outstanding Achievement Award.