

**NATIONAL**

# **SHOOTING SPORTS**

**MANUAL**

## Acknowledgments

The Boy Scouts of America greatly appreciates the National Shooting Sports committee and sub-task force members for their expertise and recommendations in the development of the *Boy Scouts of America National Shooting Sports Manual*.

The BSA 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.

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

## THE BSA'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 BSA shooting sports is to introduce youth to shooting. The BSA shooting programs are based on age appropriateness and safety with the goal of developing a positive shooting experience for each youth.

While safety is paramount, it should be noted that with all shooting sports activities there is inherent risk involved. The BSA follows the SAFE practices and requires all ranges to have approved 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 BSA's National Shooting Sports Committee understands the need for clarification in the terminology and delivery of the BSA shooting sports programs. This manual contains all BSA shooting sports activities and provides guidance for their implementation in Scouting. No other shooting sports are authorized at this time. Information on approved firearms, ranges, qualified supervision, training requirements, targets, and ammunition is included.

Updates of this manual between printings will be available at [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms) under the "Shooting Sports" tab.



## Scouting is SAFE – Shooting and Throwing Sports

The Boy Scouts of 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 shooting sports 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.
- 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 Shooting Sports are only conducted and supervised by local Councils.

### 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 shooting or throwing sports are age-appropriate for the participants being served.  
<https://filestore.scouting.org/filestore/HealthSafety/pdf/680-685.pdf>
- Ranges are located on local Council properties, and Standard Operating Procedures for each venue are available, fitting the discipline, equipment, and ammunition being used.
- If private ranges are used by older youth programs, the local shooting sports committee, an appointed NRA Chief Range Safety Officer and the Scout Executive has reviewed and approved the location and Standard Operating Procedures. “Private Property Approval for Shooting Sports by Units, Districts, and Councils” form can be found at <https://www.scouting.org/outdoor-programs/shooting-sports/>
- Verification of state and local laws regarding shooting sports are followed.

### Fitness and Skill

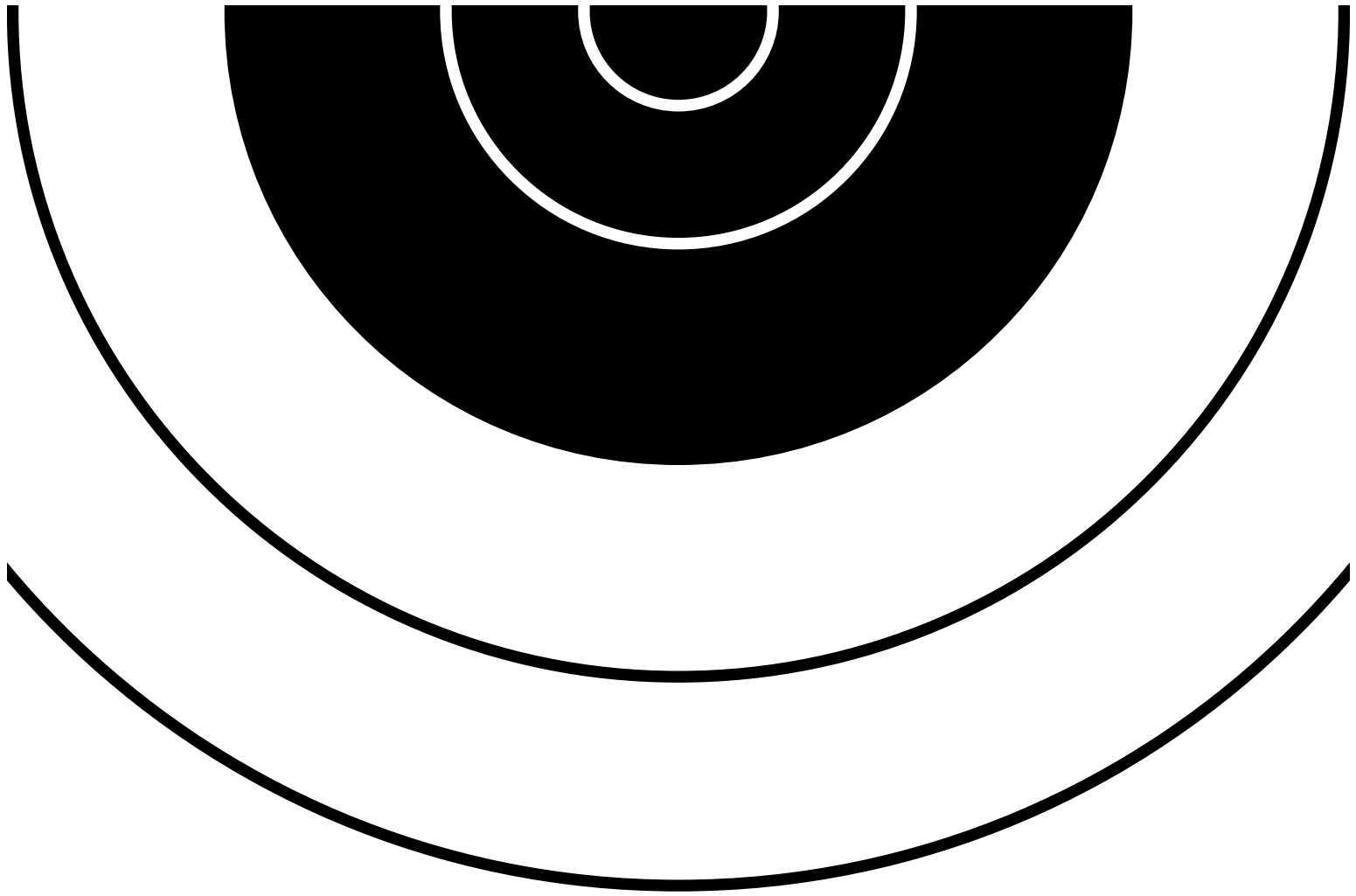
Participants’ Annual Health and Medical Records are reviewed, and leaders have confirmed that prerequisite fitness and skill levels exist for participants to take part safely. This includes:

- 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



## SECTION I **THE ESSENTIALS**

The information in Section I is essential for everyone involved in BSA shooting sports programs. This includes all individuals working with Cub Scouting, Scouts BSA, Venturing, Sea Scouting, or shooting sports committees.

# CHAPTER 1: QUALIFIED SUPERVISION—ROLES AND RESPONSIBILITIES

## Introduction to Shooting Sports and the Positive Aspects

Throughout the Boy Scouts of America from Cub Scouting to Venturing and Sea Scouting, all programs use responsible outdoor activities to promote character development and values-based leadership training. Shooting sports 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 shooting, shotgun activities, etc.—guided by adults who have the 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 BSA volunteer leaders. When activities are properly conducted under the appropriate guidelines, they can be safe, fun filled, exciting, and rewarding.

The Cubmaster, Scoutmaster, Crew Advisor, Skipper, or other registered adult leader in charge, who accompanies the unit on an outing, is always responsible for ensuring that all activities adhere to the age appropriate guidelines of the BSA and follow the program design of the BSA. However, BSA policy does not specify that the unit leader must be the one to satisfy all the criteria for supervision of specific program activities.

For Shooting Sports, the unit leader may or may not hold specified certification(s) for the supervision of the range and in the case of Cub Scouting, shooting sports is not approved for a unit activity.

There are two main aspects of shooting sports 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 BSA advancement or recognition pieces. Their main responsibility is to instruct and foster competency in the participant.

This publication provides information to determine when the proper safeguards are in place for a shooting activity, regardless of whether those safeguards are provided 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 shooting 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.

## Shooting Sports Personnel Descriptions

### Shooting Sports Director

- Twenty-one years of age or older and currently certified with National Camping School shooting sports director training within the past five years.
- In charge of all shooting sports programs, including rifle, shotgun, muzzleloaders, throwing sports and archery during the summer 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 shooting sports director holds current NRA Range Safety Officer Certification.
- Can serve as an NRA Instructor if the National Camping School shooting sports 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 shooting sports program for which supervision and instruction is required. The National Camping School shooting sports 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

### **Shooting Sports Program Counselors and Aides**

- Sixteen years of age or older and trained for specific duties by a National Camping School shooting sports 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

### **BSA BB Gun Rangemaster**

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

### **BSA Archery Director**

- 18 years of age or older
- An Archery Rangemaster who is trained by a National Camping School shooting sports 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 shooting sports 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.

### **BSA Archery Rangemaster**

- Eighteen years of age or older and trained by a National Camping School shooting sports 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 BSA standards located in Section V of this manual, “Archery and BB Guns.”

- Archery training must be renewed every two years, and this person must have a current Training Course Certificate, No. 33767.

### **Council Shooting Sports Coordinator/Chair**

- 21 years old or older. National Camping School certification as a shooting sports director is recommended.
- National Rifle Association certified instructor for one or more of the appropriate disciplines is recommended.
- Current NRA 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:

- The BSA National Camping School as a shooting sports 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 BSA programs, and the supervision required to operate these programs. All shooting sports programs must follow the guidelines of the guide to safe scouting and the age appropriate guidelines of the BSA.

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 (BSA Accredited Camp)*	All program levels <i>except</i> Lions	Eye Protection	BB gun Rangemaster	BB Gun Rangemaster National Camping School shooting Sports 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 Pack activity
Slingshot (BSA Accredited Camp)*	All program levels	Eye Protection	BB gun Rangemaster	BB Gun Rangemaster National Camping School shooting Sports 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 shooting Sports Director NRA Rifle Instructor	1 qualified staff and appropriate assistants	1:4 adult to participant	Not approved as a Cub Scout Pack activity
Pellet Rifles	Scouts BSA, Venturing, Sea Scouting, Webelos (Long-term Camp)	Eye Protection	NRA Rifle Instructor	National Camping School shooting Sports 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 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 singleshot, 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 (p. 89) for additional operational guidance.

\*BSA 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 Shooting sports guide located in chapter 23 of this manual. | † Required waiver for long-term camp only



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
Muzzleloading pistol (BSA accredited camp)	Venturing, Sea Scouting	Eye and hearing protection	NRA/NMLRA certified muzzleloading instructor	NRA/NMLRA certified muzzleloading instructor	long term camp: 1 qualified staff and appropriate assistants Short-term camp and Day Camp: 1 qualified staff and appropriate assistants AND NRA RSO.	1:6 for instruction 1:1 when loading and firing	
Muzzleloading pistol (unit activity)	Venturing, Sea Scouting	Eye and hearing protection	NRA/NMLRA certified muzzleloading instructor AND NRA RSO	NRA/NMLRA certified muzzleloading instructor AND NRA RSO	2 people (RSO and at least one instructor)	1:3 for instruction 1:1 when loading and firing	
Archery (BSA Accredited Camp)	All program levels	Arm guards on bow arm, finger protection	Archery Rangemaster	Archery Rangemaster for Cub Scout; OR USA Archery Level 1	1 qualified staff and appropriate assistants	1:8	
Archery (unit activity)	Scouts BSA, Venturing, Sea Scouting	Arm guards on bow arm, finger protection	USA Archery Level 1 or higher	USA Archery Level 1 or higher	1 qualified staff and appropriate assistants	1:8	
Tomahawks/ knives	Scouts BSA, Venturing, Sea Scouting	Eye protection	Responsible adult (18+) familiar with the use of tomahawk/knife throwing	Responsible adult (18+) familiar with the use of tomahawk/knife throwing	1 qualified staff and appropriate assistants	1:4	Activity must be approved by a council Shooting Sports Chair or National Camping School Shooting Sports Director.
Catapults (see catapults in chapter 10)	All program levels (as appropriate)	Eye protection	NRA Range Safety Officer				Activity must be approved by council SS Chair or National Camping School SS Director
Chalkball/ Paintball (BSA accredited Camp programs only)	Scouts BSA, Venturing, Sea Scouting	Eye and hearing protection	NRA Range Safety Officer	NRA RSO	1 qualified staff and appropriate assistants	1:1	See also Chalkball Shooting Program Guide, page 103 Council must apply to operate this activity
Multi-gun Airsoft experience	Scouts BSA, Venturing, Sea Scouting	Eye Protection	BB Gun Rangemaster with Airsoft endorsement Coach (authorized by airsoft instructor) Volunteer (as needed for event)	BB Gun Rangemaster with Air Soft endorsement National Camping School shooting Sports Director NRA Rifle Instructor with Airsoft endorsement	2 qualified staff and appropriate assistants	1:1 1 Instructor per bay 1 Coach per bay	See also Multi-gun Airsoft Experience Operations Guide. Chapter 15, page 89. Airsoft endorsement is conducted through the council Shooting sports committee. Council must apply to operate this activity

## CHAPTER 2: BSA SHOOTING SPORTS—A WEALTH OF YEAR-ROUND OPPORTUNITIES

### CUB SCOUT PROGRAMS

Cub Scout shooting sports 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 activities where there are properly trained supervisors and all standards for BSA shooting sports 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 in a long-term camp setting only.

### SCOUTS BSA PROGRAMS

Scouts BSA shooting sports can take place at any council-approved property. This could include a BSA-approved range or a public or private commercial range or club. Information for approval of public or private ranges can be found at <https://www.scouting.org/outdoor-programs/shooting-sports/>

The council's camp may be an ideal location for shooting sports. 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 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.

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.** The BSA camp program offers a wide variety of shooting sport 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](http://www.hunter-ed.com) (Hunting programs are only approved for Venturing and Sea Scouting).

### VENTURING AND SEA SCOUT PROGRAMS

Venturers and Sea Scouts are approved to shoot the same firearms as Scouts BSA and may also shoot rifles, pistols, and revolvers of any caliber or action. An exception is they may not shoot fully automatic firearms. Refer to "Five Levels of Shooting Activities" in Chapter 1 to better understand what qualifications must be met for Venturing and Sea Scouting.

### Opportunities

In addition to the opportunities offered for Scouts BSA listed above, Venturers and Sea Scouts also have an opportunity to participate in the hunting experience. The Ranger Award is an excellent way to learn more about hunting education and safety.

**BSA Shooting Sports Outstanding Achievement Award.** While working on the Ranger Shooting Sports elective, Venturers and Sea Scouts are to complete one of the following disciplines: air pistol, air rifle, archery, muzzleloading rifle, shotgun, pistol, 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 Shooting Sports Outstanding Achievement Award. This medal and certificate are sponsored by many companies and organizations in the shooting sports industry to recognize outstanding achievement in shooting sports.

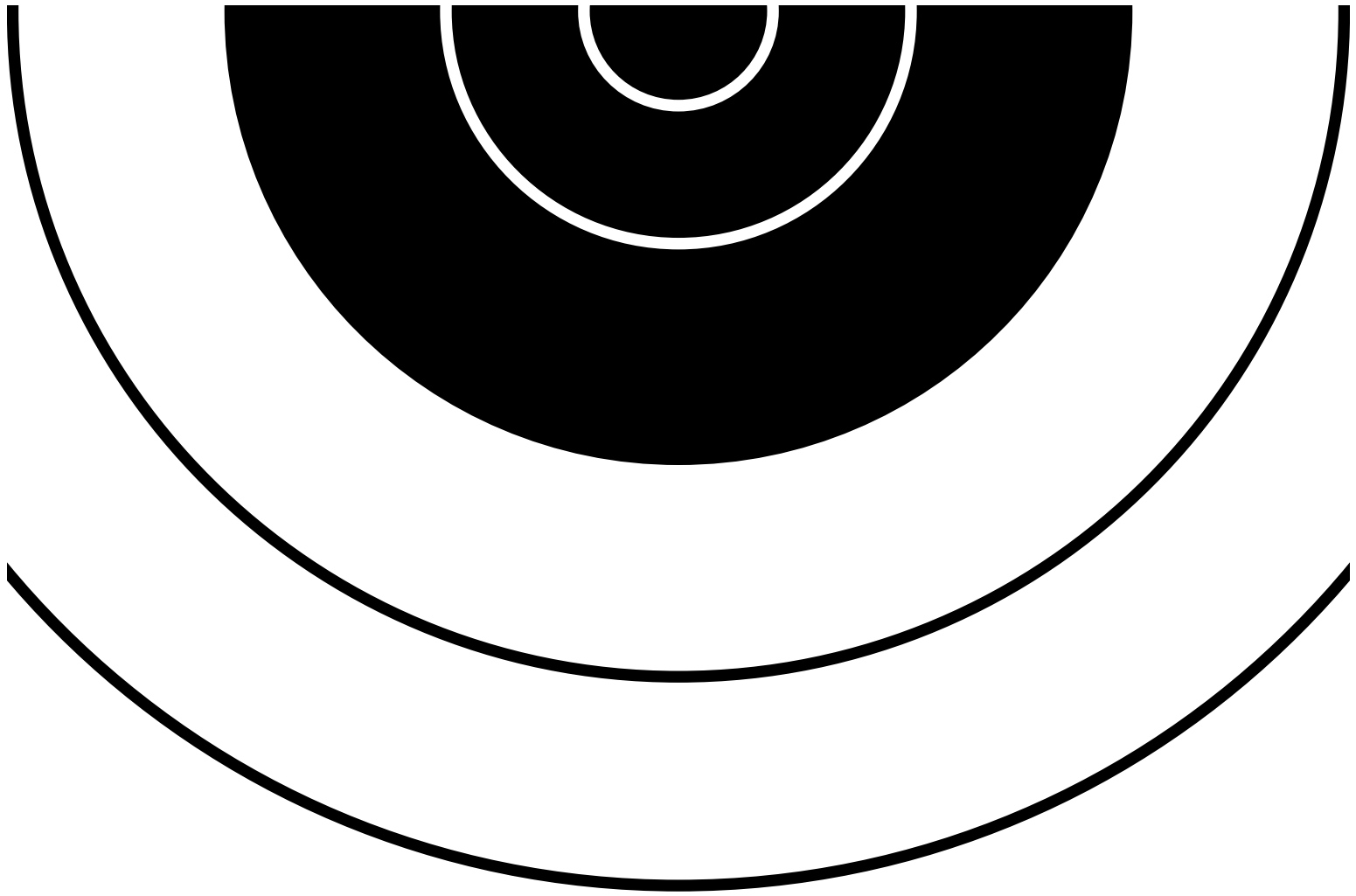
For more information, go to <https://www.scouting.org/awards/awards-central/venturing-shooting/>

### Training Programs for Adults and Youth

See Section IV on training in this book.

### Council Shooting Sports Committees

Your local council's shooting sports committee provides an opportunity to become involved in the shooting sports program on a year-round basis. Refer to Chapter 4 for more information on council shooting sports committees.



**SECTION V**  
**ARCHERY AND BB GUNS FOR CUB SCOUTS**

## CHAPTER 9: INTRODUCTION

Archery, BB gun, and sling shot shooting for Cub Scouts and Webelos Scouts are restricted to District or Council organized day camps, Cub Scout/Webelos Scout long term camp, short term camp or to council activities held on or off BSA property where the district or council provides currently trained BSA shooting sports Rangemasters and all standards for BSA shooting sports are enforced.

Archery, BB gun, and sling shot shooting for Cub Scouts and Webelos Scouts are prohibited at the pack level or den level. A multi-pack or multi-den event is not to be considered a district or council activity.

Shooting sports awards for Cub Scouts may be earned only at the camps and activities listed above.

These programs are designed to emphasize safety and marksmanship development under the direction of trained Rangemasters using nationally approved instructional methods.

This section is for the BSA shooting sports director with archery and/or NRA rifle certification or for NRA instructors or USA Archery instructors who will teach the shooting sports skills of archery, BB gun or sling shot shooting to Lions (archery and sling shot only) and Tigers with their adult partners, Cub Scouts, Webelos Scouts and Arrow of Light Scouts. There is potential danger to the untrained participant and others. "Safety through skill" is the watch phrase.

Special facilities and supervision are required for shooting sports. Camp properties of local councils become the center for most of these activities.

Shooting sports training provides fun and adventure for youth. Archery, BB gun and sling shot shooting teach skills, discipline, self-reliance, sportsmanship, and conservation, all of which are elements of good character valued by the BSA.

Adventure beckons when Lions and Tigers with their adult partners, Cub Scouts, Webelos Scouts and Arrow of Light Scouts have mastered the skills of shooting sports. Mastery of these skills will help a youth feel confident in their abilities.

The council's camping property usually is an ideal location for shooting sports areas. Here, safely designed areas may be established for the Cub Scout shooting sports program. Under qualified leadership, Lions and Tigers with their adult partners, Cub Scouts, Webelos Scouts, Arrow of Light Scouts and parents may be given the opportunity to participate in these activities.

Other community resources such as the local chapter of the National Rifle Association, archery clubs, and sports groups will often provide facilities and resources.

The skills needed to master shooting sports adds color and variety to the Cub Scout program. These activities can become a natural part of our camp setting.

### Leadership

In camp, leadership for shooting sports needs special attention by the camp director and their program director. Staff members must be certified per BSA qualifications for these activities and must be at least 18 years old with mature judgment and the ability to teach. In Cub Scout/Webelos Scout day camp, long-term camp, or short-term camps, the staff should be members of the program staff. Volunteer experts who come to camp for shorter periods may supplement their work.

All shooting ranges in the Cub Scout program must be supervised by a qualified Rangemaster who is at least 18 years old and who meets the minimum state requirements. See specific qualifications and training requirements for archery Rangemaster and for BB gun and slingshot Rangemasters starting on page 125.

# CUB SCOUT SHOOTING SPORTS ACTIVITIES

## BB Gun Shooting – Cub Scouts

BB gun shooting is an exciting, worthwhile activity for Scouts, and it is one of the most popular program activities held at camps. BB gun shooting provides fun and adventure, yet also teaches skills, discipline, self-reliance, and sportsmanship. We will teach Tiger Cubs with their adult partners, Cub Scouts, Webelos Scouts, and AOL Scouts how to use BB guns safely. (*Lion Cubs are NOT allowed to use BB guns.*)

Intelligent, supervised use of BB guns is consistent with the principle of “safety through skill.”

Approval has been given for BB gun (defined as a smoothbore spring-piston or air rifle propelling shot known as “BBs”) safety and marksmanship programs in district or council Cub Scout programs. **The barrel velocity must be 350 feet per second maximum.** Tiger Cubs and Cub Scouts are not permitted to use any type of handgun or any other type of firearm.

**The use of pellet air rifles is restricted to Webelos Scouts in a long-term camp setting and qualifies when in compliance with the following:**

- The air rifle pellet gun range meets or exceeds BSA and NRA recommendations and appropriate BSA Outdoor Programs/Properties design standards. The range is on council-owned property.
- All air rifles are in good repair and are provided. All air rifles used in BSA shooting sports 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 air rifle is immediately removed from service. Documentation of the tests is maintained.
- All air rifles (CO<sub>2</sub>, 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.
- Safe, separate and locked storage (can be the same building) is provided for pellet guns, pellets, and CO<sub>2</sub> cylinders and bulk tanks.
- Air rifle propellant is limited to CO<sub>2</sub> cylinders or air compressor/scuba tanks. Refilling is conducted by qualified 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.

### A Brief History of BB Gun

In ancient history, blowguns began to appear in many different parts of the world. Although crude, these primitive devices were very accurate. They were made from bamboo or other hollowed-out woods.

A blowgun is a tube into which a hunter blows to shoot a projectile out the other end. This idea was transferred into gun form somewhere in the 1500s. The bellows gun, invented around 1580, is the earliest known air-powered gun.

A few decades later, the first pneumatic (pump-up) air gun was created in France for King Henry IV. The nobility usually owned these early guns, since they were too expensive for commoners.

In the late 1700s, some units of the Austrian army were equipped with air rifles.

In America, records show that in the 1800s, Lewis and Clark had an air gun for hunting and impressing the native Americans. The native Americans called it “the smokeless thunder stick.”

In 1885, in the United States, the Markham Air Rifle Company became one of the first companies to sell BB guns. These pneumatic rifles eliminated bullets and used a small pellet the size of a ball bearing, soon to be called a “BB.”

A few years later, a company that sold steel windmills decided to also sell BB rifles. By 1895, this company had stopped producing windmills and made air rifles full-time and changed the company name to Daisy.

Daisy’s guns were mostly made of steel, which improved the gun’s strength and design. The Daisy air rifle became popular very quickly, and within five years Daisy had sold 250,000 BB guns. Soon, Daisy bought out all of its competition.

Daisy also promoted to youth by making special BB guns that related with popular historical characters like Davy Crockett.

In 1984, the Olympic Games featured air guns for the first time.

Today, BB guns are still being produced in both rifle and pistol forms and are very popular among all age groups.

### Leadership

BB gun shooting must be conducted by trained, qualified, on-site rangemasters who direct the operation of the range program and BB gun shooting instruction. The ratio of BB gun rangemasters to shooters is 1-to-8 on the firing line. To qualify as a BB gun rangemaster, the rangemaster must be at least 18 years old and be trained by a National Camping School-trained shooting sports director or a National Rifle Association rifle instructor.

The BB gun rangemaster also must be registered with the Boy Scouts of America.

The local council issues a Training Course Pocket Certificate, No. 33767, and keeps a record of those who have been certified. BB Gun Rangemaster, course code CS 32. Certification must be renewed every two years.

### **Training BB Gun Rangemasters**

This training is conducted by a National Camping School Shooting Sports Director. This training should be conducted on a BB gun range. Include a practical exercise on how to set up a BB gun range, referencing the diagram in this appendix for the range layout, and have the participants walk through the process of running the range.

The outline to train BB Rangemasters can be found in the appendix on page 126.

### **Training Cub Scouts**

The objective is to teach Cub Scouts how to use a BB gun safely, to teach basic BB gun shooting skills, and to have fun. They should have the opportunity to fire a BB gun during the first orientation period. This activity is not intended necessarily to produce expert marksmen.

The instructor must always be mindful of their responsibility to make safety thoroughly understood before, during, and after instruction and practice. At the same time they must have warmth, patience, and understanding for the Scout who finds the skill difficult to learn.

### **Teaching Tips**

The coach-pupil method is effective for all types of skill training and is particularly effective in shooting sports. To put this method into practice:

1. Put the BB gun in the Cub Scout's hand as soon as possible so they can understand the BB gun while the basics are explained.
2. Group participants into pairs (Scout and parent/guardian would be ideal).
3. The instructor demonstrates the activity or action to be followed before the whole group. When demonstrating techniques, be sure to do them correctly. The instructor then circulates among the pairs giving a word of advice or assistance, recognizing good work, correcting errors, and determining how well the participants understood the method.
4. The Scout practices while the parent coaches. Let Scouts shoot the first round. At a predetermined signal, reverse the roles. Progressively, participants are learning by observing, by doing, and by coaching.
5. Use a positive approach. Use praise sincerely. Before making a correction, question the fault to find the cause. Show the youth what they are doing wrong.

6. Avoid long discussions on the parts of the equipment used. Teach just enough so participants will know how to safely use the equipment.
7. Allow each Scout to feel the satisfaction of hitting a target as quickly as possible.
8. Scouts do not have to load one BB at a time and shoot before loading another BB. They can load at one time all the BBs they are given.
9. In the following outline, "Cub Scout BB Gun Shooting Training," the time needed to conduct each section is not indicated because it will vary depending on the number of Cub Scouts participating.

### **Cub Scout BB Training—Youth**

#### **Section I**

A. Safety Guidelines, page 55

B. Equipment, page 61

1. Review diagram of Spring-Piston Gun (*Ensure to cover stock, butt, trigger, trigger guard, forearm, muzzle, rear sight, and safety.*)
2. Targets (Refer to **Cub Scout Shooting Sports Guide**, No. 510-322, in Appendix 20 of this guide)
3. Maintenance
  - The BB Gun should be unloaded when stored.
  - The safety mechanism should be engaged.
  - The BB Gun should be protected from scratches or scraps from other guns.
  - The BB Gun should be locked or otherwise secured in a safe, dry location, separate from ammunition.

#### **Section II**

A. BB Gun Shooting Basics, page 56

1. Eye Dominance, page 56
2. Shooting Shoulder, page 56
3. Breathing, page 56
4. Sight Alignment, page 56
5. Trigger Squeeze, page 56
6. Follow-Through, page 57

B. BB Gun Shooting Practice Fun, page 59

#### **Section III (optional activities)**

A. Shooting Positions, page 57

1. Free-Arm Standing Position, page 57
2. Bench Rest Position, page 57
3. Prone Position, page 58
4. Sitting Position, page 58

B. BB Gun Shooting Games and Activities, page 59

C. Cub Scout Awards (Refer to **Cub Scout Shooting Sports Guide**, No. 510-322, in Appendix 20 of this guide)

## Tiger Cubs and BB Gun Shooting

Tiger Cubs and their adult partners may participate in BB gun shooting activities. The adult partners must be included in all shooting activities. Each Tiger Cub must be paired with their adult partner before being allowed to shoot. In most cases, when Tiger Cubs and their adult partners participate in BB gun shooting, it will be 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 previous experience working as a group and may require more time to understand how the range operates. Tiger Cubs have a wide range of ability and experience levels, so be ready for anything!

### Safety Guidelines

When training youth to shoot, be sure to have proper equipment, secure and safe ranges, and clear safety instruction.

Gun safety is a simple but continuous process. Youth must first learn about safe gun handling. Safe handling skills are developed through practice. The most important safety element is attitude. All the safety knowledge and skills are of little value unless they are used. Being safe means consciously keeping a BB Gun under control.

Before handling any gun, a Scout must always get permission from their parent or guardian. If this is their first BB Gun shooting experience, they should sit down with an adult and discuss under what circumstances the gun can be handled. They must understand that the BB gun is not a toy.

Before using a gun:

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

These basic rules apply to handling a BB Gun under any circumstances:

1. **Always keep the gun pointed in a safe direction.** This is the primary rule of gun safety. "Safe direction" means the gun is pointed so that even if it were to go off, it would not cause injury or damage. The key to this rule is to control where the muzzle or front end of the barrel is pointed at all times. Common sense dictates the safest direction depending on circumstances.
2. **Always keep your finger off the trigger until you are ready to shoot.** When holding a gun,

rest your finger along the side of the gun or the trigger guard. Until you are actually ready to fire, do not touch the trigger.

3. **Always keep the gun unloaded until ready to use.** When you pick up a gun, carefully point it in a safe direction. Engage the safety, if possible. Then, while keeping your finger off the trigger, open the action and look inside the chamber(s) to make sure it is clear of ammunition. If the gun has a magazine, remove it before opening the action and make sure it is empty. If you do not know how to open the action or inspect the chamber(s), leave the gun alone and get help from someone who does.
4. **Know how to use a gun safely.** Before handling a gun, learn how it operates. Know its basic parts and how to safely open and close the action. Know how to remove ammunition from the gun or magazine.
5. **Be sure the gun is safe to operate.** Just like other tools, guns need regular maintenance to remain in good working order. Regular cleaning and proper storage are part of the gun's general upkeep. If there is any question about a gun's ability to function, then do not use it. Get someone to fix it!
6. **Use only the correct ammunition for the gun.** Only the BB designed for a particular BB gun can be fired safely in that gun. Do not shoot the gun without loading the proper ammunition.
7. **Wear eye protection.** Always wear eye protection. Shooters and instructors should wear approved safety goggles at all BB gun ranges. BBs may ricochet.
8. **Never use alcohol or drugs before or when shooting.** Alcohol or any other substance likely to impair normal mental or physical function must not be used before or while handling or shooting guns. This may include prescription medications.
9. **Most guns have a mechanism called a safety** that helps prevent the gun from accidentally firing. However, a safety is a mechanical device, which can and will fail. Shooters must be trained that the safety mechanism is not a sure, safe way to prevent a gun from firing. Many accidents have occurred because shooters have relied on the safety mechanism to work.
10. **Although not mandatory for BB gun shooting, ear protection may also be worn.** Shots fired from guns are loud, and the noise could damage the hearing of some shooters.
11. **Know your target and what is beyond the target.** Be absolutely sure to identify the target beyond any doubt. Equally important, be aware of the area beyond the target. Never fire in a direction where there are people or where any other potential for mishap might exist. Think first. Shoot second.

12. **Store guns so they are not accessible to any unauthorized person.** Deciding where and how to store guns and ammunition depends on several factors and include security and accessibility. Safe and secure storage means untrained individuals (especially children) are denied access to guns and ammunition.

### *What Causes Gun Accidents?*

Most air gun accidents are caused by ignorance and/or carelessness.

- Ignorance: A lack of knowledge
- Carelessness: A failure to use knowledge

### *Safety Reminders*

What should a Cub Scout do if they find a gun in another place?

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

### *Sun Safety on the Shooting Range*

The American Academy of Dermatology advises the following protection tips against damaging rays:

- Limit exposure to sun between 10 a.m. and 4 p.m. when the sun's rays are the strongest.
- Generously apply sunscreen with a sun protection factor (SPF) of at least 15 and reapply it every two hours when outdoors, even on cloudy days.
- Wear protective, tightly woven clothing, such as a long-sleeved shirt and pants.
- Wear a hat with a wide, 4-inch brim and sunglasses with UV protective lenses.
- Stay in the shade whenever possible.
- Avoid reflective surfaces, which can reflect up to 85% of the sun's damaging rays.

### **BB Gun Shooting Basics**

#### *Eye Dominance*

Before shooting a gun, the participants should determine which eye is dominant. Just as people are either right- or left-handed, one eye is more dominant than the other. Discovering which eye a shooter favors is important because it could determine on which side the gun is held.

To find which eye is dominant, have participants extend both arms in front of them and form a small hole with 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.

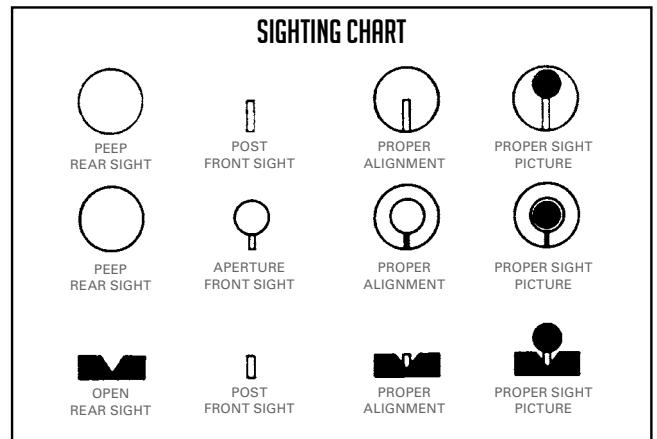
Assign youth, leaders, and parents in pairs to assist each other, then have them check with the rangemaster.

### *Shooting Shoulder*

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

### *Breathing*

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



### *Sight Alignment*

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

Proper sight alignment is a key to accurate shooting. Any misalignment of the front sight with the rear sight introduces an angular error that is multiplied with distance.

A correct sight picture is obtained by achieving the proper alignment and then putting the aligned sights into their proper relationship with the target.

Focus should be on the front sight.

### *Trigger Squeeze*

Trigger squeeze is the term used to explain how pressure is applied to the trigger. Some other terms commonly used are trigger pull, trigger control, trigger press, and trigger movement. While all these terms are correct, the preferred term is trigger squeeze because it accurately describes the smooth application of pressure required.



When ready to begin squeezing the trigger, the index finger should be on the trigger so the trigger is about halfway between the tip of the finger and the first joint.

The trigger must be squeezed straight back in a smooth, continuous manner without disturbing the sight alignment. Once trigger squeeze has begun, keep squeezing smoothly and continuously—do not speed up or slow down or apply pressure in a start-and-stop manner. Use the same type of pressure that would be used to squeeze a drop of liquid from a medicine dropper—a gradual, steady application of pressure until the drop finally falls. Just as it would be impossible to predict the instant the drop of liquid will fall, it should be impossible to predict the precise instant the gun will fire. Each shot should come as a surprise.

For best results, the trigger squeeze should be done as the shooter holds steady on the correct sight picture.

### ***Follow-Through***

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

The idea is to prevent any unnecessary movement before the projectile leaves the barrel. Because an air gun takes longer to send a projectile out of the barrel, proper follow-through is particularly important.

### ***Shooting Positions*** (All positions are described for right-handed shooters. Reverse for left-handed shooters.)

Proper body position is essential to achieve a good shooting score. When learning any shooting position, these basic steps must be followed:

1. Study the position.
2. Practice the position without a gun. (Learn to put the feet, legs, body, head, and arms in the correct position without holding a gun.)
3. Practice the position with a gun.
4. Align the position properly with the target.  
Adjust the position so the gun points naturally at the target.
5. Shoot from the position.

### ***Free-Arm Standing Position***

#### **Body position:**

- **Feet.** Stand with feet shoulder width apart and body weight evenly distributed.
- **Body and head.** Keep the body and head comfortably erect.
- **Face.** Place your cheek against the stock so you are looking down the barrel.
- **Knees.** Keep the knees straight but not locked.
- **Left arm.** Rest the left arm against the rib cage to support the rifle.

- **Left hand.** Place the left hand under the fore-end of the rifle to support the weight of the rifle.
- **Right hand.** Grasp the rifle grip with the right hand.
- **Right shoulder.** Position the rifle butt against the right shoulder so the sights are at eye level.



**FREE-ARM  
STANDING POSITION**

### ***Bench Rest Position***

#### **Body position:**

- **Body & Feet.** Seated at the bench. Body leaning forward slightly, and feet flat on the floor.
- **Head.** Keep the head comfortably erect.
- **Face.** Place your cheek against the stock so you are looking down the barrel.
- **Left arm.** Rest the left elbow against the bench to support the rifle.
- **Left hand.** Place the left hand under the fore-end of the rifle to support the weight of the rifle.
- **Right hand.** Grasp the rifle grip with the right hand.
- **Right shoulder.** Position the rifle butt against the right shoulder so the sights are at eye level.



**BENCHREST POSITION**

### ***Prone Position***

#### **Body position:**

- **Body.** Lie on the ground, facing the target and angles slightly left.
- **Right knee.** Slightly bend the right knee.
- **Right leg.** Draw the right leg up, keeping it parallel to the back, and place the right foot on the ground.
- **Face.** Place your cheek against the stock so you are looking down the barrel.

- **Left elbow.** Extend the left elbow forward.
- **Left hand.** Hold the fore-end of the rifle with the left hand.
- **Right hand.** Grasp the rifle grip with the right hand.
- **Right shoulder.** Position the rifle butt against the right shoulder so the sights are at eye level.



**PRONE POSITION**

### *Sitting Position*

#### **Body position:**

- **Body.** Sit cross-legged at a 45-degree angle to the line of fire.
- **Feet.** With the sides of the feet flat on the ground, rest the calves on the upper sides of the feet.
- **Elbows.** Rest both elbows on the legs just in front of the knees.
- **Face.** Place your cheek against the stock so you are looking down the barrel.
- **Left hand.** Hold the fore-end of the rifle with the left hand.
- **Right hand.** Grasp the rifle grip with the right hand.
- **Right shoulder.** Position the rifle butt against the right shoulder so the sights are at eye level.



**SITTING POSITION**

### **Basic Shooting Activity**

This shooting activity covers many of the basic fundamentals needed in shooting a BB gun. Pair Scouts and adults as shooters and coaches.

1. Greet the participants.
2. Bring the participants onto the range.
3. Show the gun and say “This is a BB gun.”
4. Point to the barrel and say, “This is the barrel.”
5. Point to the muzzle and say, “This is the muzzle. It is the end the BB shoots out.”

**Always keep the gun pointed in a safe direction.**

6. Point to the action and say, “This is the action. It has the trigger—the part you squeeze to shoot.”

**Always keep your finger off the trigger until you are ready to shoot.**

7. Say, “The action also has the chamber where you put the BB to load the gun.”

**Always keep the gun unloaded until ready to use.**

8. Point to the stock and say, “This is the stock.” Then demonstrate how to hold the gun: Put the butt of the stock against your shoulder, hold the grip with the hand of the same arm, keeping your finger off the trigger and pointed in the same safe direction as the gun. Hold the forearm with your other hand.
9. Say, “You will use the free-arm standing position like this.” Demonstrate the position that is recommended for your range.
10. Have everyone on the range put on eye protection, either safety glasses or goggles.
11. Say, “Shooters, please move forward at my command.” Then give the command, “ON THE FIRING LINE.”
12. Assume the shooting position.
13. Have shooters pick up their guns, keeping them pointed in a safe direction downrange.
14. Have shooters again assume the shooting position, this time with the gun, and look through the sights. Explain how the sights are used.
15. Once all shooters know how to assume the shooting position and how to properly hold the gun, explain and demonstrate how to charge the gun.
16. Have shooters load BBs into the chamber. (Explain further.) Close and ready the gun.
17. Return to your shooting position. Note that everyone can make ready and load the gun.
18. Give the command “READY ON THE FIRING LINE.”
19. When shooters are in the ready position, give the command “COMMENCE FIRING.” Shoot all your five shots.
20. Watch for safety and help as needed.
21. Give the command “CEASE FIRE.” Everyone is to stop shooting.
22. Give the command “CLEAR ALL GUNS.” Have everyone clear their gun.
23. Explain and demonstrate how to make a gun safe. Explain how to ground the gun for position and range.

### **BB Gun Shooting Games and Activities**

A variety of games or activities can be done with BB gun shooting skills. Different ranges could be set up to play a particular game or courses could be set up where

participants go from station to station. BB gun shooting games and alternate activities work well, especially when youth are in camp for more than one day or if a council sponsors a special BB gun shooting camp for Cub Scouts. Shooting games are designed to improve shooting skills. Remember—safety is a must.

The following games and activities are appropriate for Tiger Cubs with their adult partners, Cub Scouts, Webelos Scouts and Arrow of Light Scouts.

### Fun Target Activities

- 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 their BBs hit. The highest score is the winner.
- Place dots on a target, then shoot at the back side of the target. Count the score from the dotted side.
- Suspend table tennis balls in a box to use as targets.
- Create a target by taping round candy to the back of a box. When the target is hit by the BB the candy shatters.
- Set up balloons as targets.
- Set up crackers as targets. Have participants shoot at the narrow edges of the crackers.

### 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.

### BB Gun Shooting Practice Fun

A practice station is a simple, basic BB gun shooting range, but is very fun for the boys. Many Cubs have few opportunities to shoot guns, so having the opportunity at a council camp or event to practice is a great experience for them.

Discuss and emphasize the primary rules of proper gun handling. Point out that all guns are potentially dangerous.

Practice the following skills:

- Have participants always point the muzzle in a safe direction and to be sure of their target.
- Show how to handle a gun while standing and when walking.
- Demonstrate and practice various gun-handling situations—how to pass the gun to another person, how to cross a fence with it, how to store it in an automobile, and how to get in and out of a boat

with it. Use real or artificial situations, but use the Scouts as demonstrators and require them to practice with others watching.

- Review sight pictures and sight alignment. Give reasons for sighting in a gun before shooting. Tell how little mistakes in sight alignment cause big misses on the target.
- Explain sight adjustment—move the rear sight in the direction you want the BB to go.
- Have relays, prone position without magazine, using sling or sandbag and paper targets.
- Explain the use of BB dishes.
- Demonstrate sitting, kneeling, and standing shooting positions.
- Shoot five rounds per Cub Scout using the standing position.

### Range Layout

**A sample outdoor BB Gun range layout is included at the end of this section.** Safety is a primary concern when operating a BB Gun range, and all safety rules must be followed.

If at all possible, the range should be laid out so shooting is done in a northerly direction so shooters are never facing the sun.

#### *Shooting on a Safe Range*

A safe range must have three things:

1. A safe area.
2. A safe distance
3. A safe backstop

1. **Safe area.** Whether inside or outside, be sure the range is set up so no one can accidentally walk in front of the firing line. When indoors, make sure doors and side windows are locked. When outside, make sure to always shoot in a safe direction. In either case, never point the gun toward windows or where people might walk.
2. **Safe distance.** Maintain at least 15 feet between the shooter and the target.
3. **Safe backstop.** A backstop to trap BBs and hold the target can easily be made from a large cardboard box. Do not shoot at a hard surface that could cause a ricochet. If using a tarp as a backstop, it is important to verify that the tarp is made of a heavy canvas material and not a thin plastic canvas material. It is best to hang the material at a 45-degree angle. Bales of straw also work well.

Important! Arrange facilities so there is no possibility of non-participants inadvertently walking behind the targets while shooting is in progress! No one may stand directly in front of the target while shooting is in progress!

**Inflatable Ranges** (Only commercially manufactured equipment is allowed to be used.)(A BSA certified BB Gun Rangemaster or individuals specified in NCAP standard SQ 407 must supervise the range.)

If an inflatable range is utilized, appropriate side and rear boundaries must be in place. (Minimum 10 ft. on the side, 15 ft. behind the target zone and 15 feet behind the shooting line.) There must also be a distinct gated entrance to access the shooting line. (Manufacturers guidelines must always be followed if they are more stringent.)(You may only use manufacturers recommended equipment.)

### Range Operation Rules

When operating the range, the safety rules must be remembered and constantly obeyed.

1. If the range is outdoors, fly a red range flag whenever the range is in use. The flag should be large enough and high enough on a flagpole to be seen from all approaches to the range.
2. Shooters reporting to the firing line will be issued a specific number of BBs and a BB dish that will be placed in plain sight at the firing point.
3. Shooters will be instructed that in case of a misfire the BB gun will be kept pointed at the target. The instructor will be called. If the malfunction is due to a broken part, the gun, after being cleared of BBs, will be removed from the firing line.
4. BB guns must be left with the action open or at half-cock, in the case of lever action spring-piston air guns, except when the shooter is in position on the firing line and has been given the command to load. (Half-cock position on a lever action spring-piston air gun is with the lever down, but without the spring compressed or cocked. To check to see if the gun is cocked, pull the lever forward; if there is no pressure on the lever, the spring is compressed and the gun is cocked.)
5. As soon as the command to cease firing is given, the BB guns must be opened and placed on the shooting mat with their muzzles pointing down-range, actions open or at half-cock, whether or not the shooter has completed firing all his shots. This rule must be enforced and obeyed absolutely.
6. In preparing to fire, the targets are first placed in position. The shooters then take their places on the firing line. While the first group is firing, the targets are prepared for the next group of shooters and they are told their firing point. When the first group has completed firing and all BB guns are unloaded and actions open or at half-cock, the fired targets are taken down and the new targets set up.
7. No one, shooter or instructor, is allowed in front of the firing line after the order has been given

to load and before the order has been given to cease firing—actions open.

8. No one is allowed on the firing line except the shooters and their coaches or instructors.
9. Horseplay of any kind is forbidden on the range. Spectators and those who are waiting their turn to fire are not permitted to do anything that may distract the attention of the shooters from the business of shooting accurately and safely.
10. All BB guns not in use should be kept in racks with the actions open or at half-cock.

### Sample Range Rules Poster



#### GENERAL SHOOTING RANGE RULES

1. This range may be opened only by a qualified BSA-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.

This poster can be found in the *Cub Scout Shooting Sports Guide*, No. 510-322, in Appendix 20 of this guide.

### Range Commands

When ready to start firing, the rangemaster commands: “ON THE FIRING LINE.”

Immediately, each shooter takes his assigned place at his firing point and prepares to fire, but does not load. The rangemaster checks the location of each shooter to ensure correct firing point and target number.

The rangemaster makes sure the range is clear, then asks: “IS THE LINE READY?”

If there is any shooter who is not ready or whose target is in bad order, that shooter immediately raises his arm and calls:

“NOT READY” and gives the number of his target.

The rangemaster will immediately call:

“THE LINE IS NOT READY.”

The rangemaster will investigate the difficulty and assist in correcting it. When the difficulty has been corrected, the rangemaster calls:

“IS THE LINE READY?”

If all is ready, the rangemaster then calls:

“THE LINE IS READY.”

(This means the line is ready on the right, ready on the left, and ready on the firing line.)

The rangemaster calls:

“LOAD.” Shooters load the BB gun chambers.

The rangemaster calls:

“READY ON THE FIRING LINE.”

The rangemaster commands:

“COMMENCE FIRING.”

After firing, the rangemaster commands:

“STOP FIRING — CLEAR ALL GUNS.” All BB gun chambers and magazines are unloaded and shooters leave the firing line with the actions of their BB guns open.

Repeat the above steps for all succeeding shooters.

The rangemaster will immediately command “STOP FIRING” if any incident occurs that could result in possible injury to some living thing should firing continue.

“AS YOU WERE” means to disregard the command just given. “CARRY ON” means to proceed with whatever was being done before the interruption occurred.

## Equipment

### Range Accessories

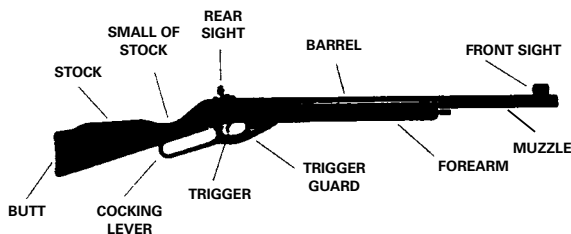
- Tarps to provide shade over the pads protecting the shooters and the guns
- BB dishes at each firing point
- Shooting mats at each firing point
- A desk with storage space for equipment for recording scores. It should be behind the ready line and near the bulletin board.
- Ample waste receptacles behind the firing line for fired targets and trash
- Sandbags or other rest equipment for each firing point
- Range flag and pole for use during range operation
- BB gun racks to store BB guns that are not in use

### Air Guns

Air guns, traditionally regarded as guns for beginners, are now enjoyed by shooting enthusiasts at all skill levels. Some, such as the familiar BB gun, are excellent for beginners, while other types are designed for the seasoned competitor. Whether used for recreation or sport, for field use or as an inexpensive training tool, air rifles are an excellent way to enjoy shooting.

In recent years, air guns have undergone dramatic improvements, making them more reliable, durable, and accurate. Air guns can be fired safely by shooters of all ages and experience levels on a wider variety of ranges than any other type of firearm.

## Spring Piston Guns



Spring-piston air guns use a manually operated lever, pivoting barrel, or other device to move a piston that in turn compresses a mainspring located in the frame or receiver portion of the gun.

When the piston is completely retracted, the mainspring is fully compressed. The piston will remain in this retracted position until the shooter releases it by pulling the trigger. The piston, under pressure from the compressed mainspring, moves rapidly forward when it is released, and compresses the air in front of it. The compressed air then forces the projectile out of the barrel.

In this type of air gun, the air that propels the projectile is not stored in a reservoir prior to firing; the air is compressed by the movement of the piston after the trigger is pulled.

## Pneumatic Guns

Pneumatic air guns use the principle of stored compressed air or gas and can be divided into two categories: single-stroke/multi-pump guns and compressed CO<sub>2</sub>/air guns.

### Air Gun Ammunition

There are five basic types of air gun ammunition: BBs, pellets, lead balls, darts, and bolts.

Keep BB Gun shooting equipment in good condition. Repairing guns and keeping target faces and mats in good condition can save money and make shooting experiences more successful.

### Eye Protection

Eye protection must be available for all individuals on a BB Gun range. The best ones are those with side shields.

### Backstops

Baled straw stacked behind the target will stop shots. Also, several layers of burlap, old canvas, or rugs hanging loosely over a horizontal pole or plank 1 or 2 inches wide will stop many shots. If tarps are used, check them for weakness during the season. Heavy duty moving blankets may also be used as long as it is monitored.

## Cub Scout Shooting Sports Awards

Cub Scouts earn the shooting sports awards in the following order:

1. **Rank-level patch.** Complete level 1 requirements. This involves participation in archery and acquiring basic knowledge of proper technique, safety, and operations. The patch is only awarded one per program (rank) year.



2. **Discipline device (pin).** Complete the level 2 requirements. This is designed to help a Cub Scout develop and demonstrate further skills, proficiency, and knowledge in BB Gun shooting. These skills are rank specific and provide a progression of skills appropriate for each age and rank of Cub Scouting.



## How To Set Up Outdoor Target BB Gun Range

Set up for wide-open, cleared space.

1. Select the Orientation of the Range
  - Avoid shooting into the sun by facing North.
  - The ground should be flat and free of obstacles.
  - Look for a natural backstop such as a berm to stop bb's. (If there is no berm, provide a minimum of 150 feet of open area behind the targets.)
  - The safety zone on the side should be 30-50 feet.
2. Place Range and Safety Lines
  - Rope, eco-friendly spray paint or chalk are ways to lay down the range lines outdoors. Follow the guidelines illustrated on the following page.
  - Shooting Line – The Shooting Line is between 15-30 feet from the Target Line depending on the skill level of the participants.
  - Waiting Line – Shooters stand behind the Waiting Line before and after shooting their arrows. 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 archers 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)

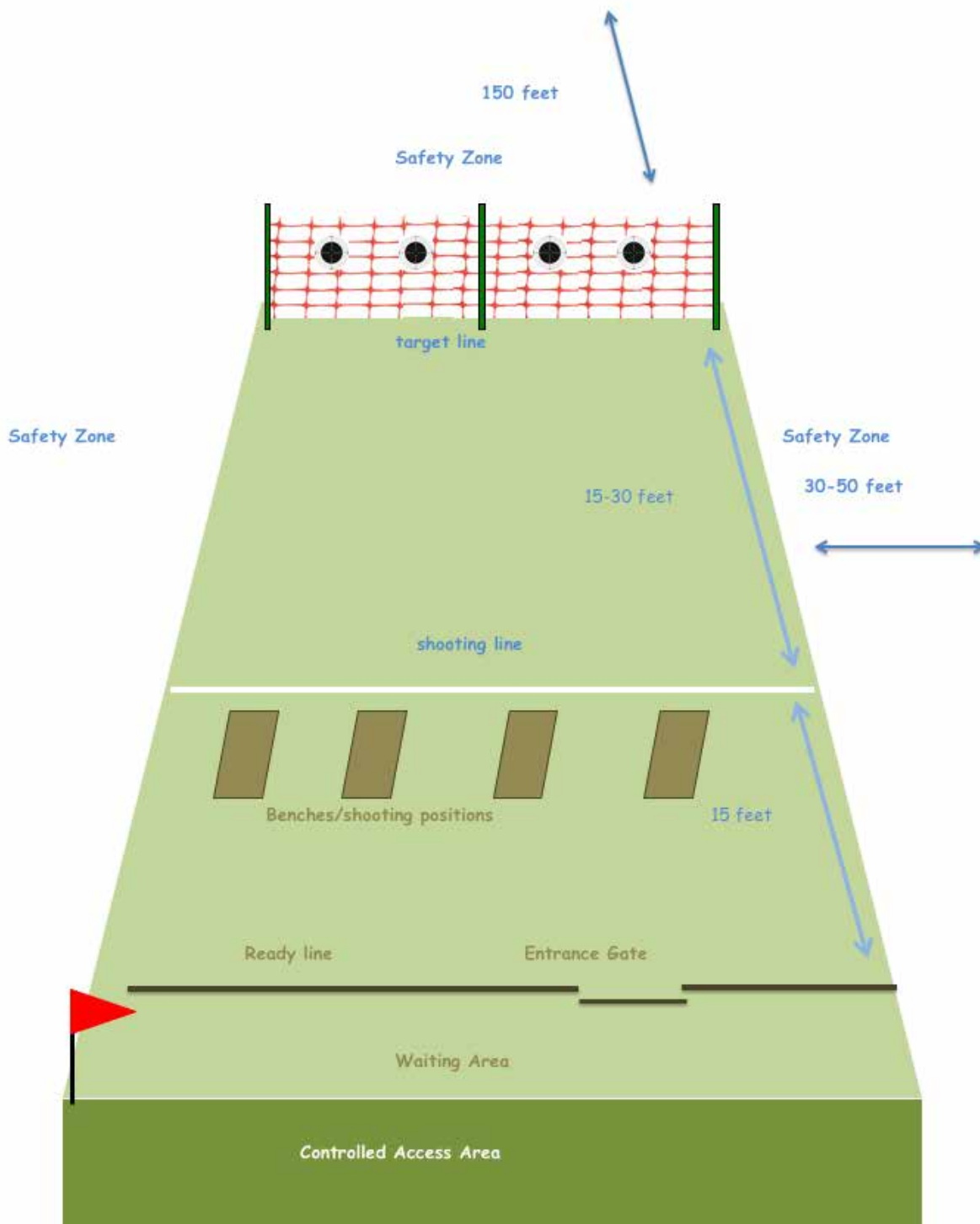
### 3. Set Up Targets

- 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.
- Evenly space targets in front of the berm. Space between targets is dependent on placement of shooting positions.
- 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.
- A temporary target holder can be made using old political signs with their wire ground stands. (Paint over the political signs if they are used.)

### 4. Place the Equipment

- Eye protection should be available in the waiting area. All participants on the range must wear eye protection.
- BB Guns – May be on the top of the bench if using bench rest positions, or on the mat used for the prone positions. If shooters are shooting from the free-arm standing position, there should be some type of stand where the guns may be placed when not in use.
- BB's – Should be between the shooting line and the ready line under the control of the rangemaster.

## Outdoor Range Layout: Wide Open Space



# ARCHERY

Archery is a colorful, interesting, and worthwhile activity for youth. The beginner gets immediate satisfaction yet finds a continuous challenge as they develop into a skilled archer. This activity provides good physical exercise and develops powers of concentration and coordination.

The goal is to teach Lion and Tiger Cubs with their adult partners, Cub Scouts, and Webelos and AOL Scouts how to use the bow and arrow safely. Archery is approved for all levels of Scouting.

## A Brief History of Archery

The advancement of civilization was enhanced by the use and discovery of bows and arrows. The bow and arrow provided a much safer way to hunt and made life easier.

Generally it is thought the spear was the predecessor to the bow. Spearheads have been discovered from many thousands of years ago.

A recognizable bow was discovered dating back to 6000 B.C. that was made from yew or elm.

Egyptians, somewhere around 3500 B.C. to 2800 B.C., are considered the first to use the bow in battle, which gave them superiority over their enemies. This bow was known as a composite bow.

Assyrians developed a shorter recurve bow that provided more power and easier handling around 1500 B.C. Crossbows were also used in ancient China.

About this same time, the Parthians became famous for shooting backwards while riding a horse. The term “Parthian shot” is still used today in archery.

Heracles, a Greek hero, was very well known for his help with the siege of Troy around 1260 B.C.–1240 B.C. As a direct result of Heracles’ help, the city of Troy fell through the use of the Trojan Horse.

Around 1200 B.C., a famous Egyptian pharaoh named Rameses II gave archery another boost by putting archers on chariots. This mobility allowed the Egyptians to defeat the Hittite army.

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

Some of the first archery clubs were formed in England. Competitions were part of their way of life. The English are noted for the three forms of shooting. Butt shooting is where targets are mounted on mounds at 100 to 140 yards. Clout shooting is where targets

are mounted on the ground with a wooden stay in the center. For these two forms, arrows are shot upward to descend on the target. For the third form of shooting, roving archers shoot at simulated small animals over varying ranges on unprepared ground and courses.

Around 1000 A.D., bow and arrow technology swept the Americas. As seen through archeological studies, its use was adopted by most prehistoric native Americans.

In 1879 the National Archery Association was founded. The first national tournament was held in White Stocking Park in Chicago the same year. The first archery club in the United States, the United Bowmen of Philadelphia, was founded in 1928.

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

## Leadership

Archery must be conducted by trained, qualified on-site Rangemasters who direct the operation of the range program and archery instruction. To qualify as an archery Rangemaster, the Rangemaster must be at least 18 years old and be trained by a National Camping School-trained shooting sports director or a USA Archery/NFAA instructor.

The local council issues a Training Course Pocket Certificate, No. 33767, and keeps a record of those who have been certified. Archery Rangemaster, course code CS 31. Certification must be renewed every two years.

## Training Cub Scouts

The objective is to teach Cub Scouts how to shoot a bow and arrow and to have fun safely.

This instruction is designed for immediate participation and success. For example, beginning archers tend to shoot high because they want to look at the point of their arrows. By placing the bottom of the targets on the ground at 10 yards, rather than at the traditional 48-inch level at 25 yards, fewer arrows miss the target. This means more class time can be spent on shooting and less on looking for arrows.

Before handing out equipment, check each archer’s eye dominance, page 66. Also, look for loose objects on the archers such as pins, pencils, loose sweaters, and watches that could get in the way of shooting.



For the best learning experience, give each Cub Scout a bow, an arm guard, a finger tab, a quiver, and six arrows. If it is not possible for each to have a bow, one bow might be shared by two or more archers.

Caution the class to hold the items but to not shoot until you give exact instructions to do so. Bows should already be strung at the first session. Stringing and unstringing bows may be taught later.

For beginning instruction, have left-handed archers grouped at the right end of the shooting line to allow them a better view of the Rangemaster as they demonstrate.

Instruction takes place at the shooting line. Explain the use of whistles, page 166.

### **Teaching Tips**

The coach-pupil method is effective for all types of skill training and is particularly effective in shooting sports. To put this method into practice:

1. Put the bow in the archer's hand as soon as possible so they can understand the tool while the basics are explained.
2. Group archers into pairs (Scout and parent/guardian would be ideal.) Check for loose items on the bow side of the archer that could interfere with their shooting.
3. The instructor demonstrates the activity or action to be followed before the whole group. When demonstrating techniques, be sure to do them correctly. The instructor then circulates among the pairs, giving a word of advice or assistance, recognizing good work, correcting errors, and determining how well the archers understand the method.
4. Check the archer's finger tab closely before they shoot. Watch for four fingers on the string. Look for cramped fingers on the bowstring. Watch the thumb on the drawing hand. If an archer masters the draw and anchor quite readily, stand behind them and check that when the string is released it will not hit the arm or chest of the archer when they shoot.
5. The archer practices while their partner coaches. Let archers shoot the first arrow as soon as possible, even if the bow hand, anchor, draw, etc., are not perfect.
6. At a predetermined signal, the positions are reversed if using coach/pupil.
7. Progressively, archers are learning by observing, by doing, and by coaching.
8. Use a positive approach. Use praise sincerely. Before making a correction, figure out the fault to find the cause. Never correct a student after spotting a fault on one arrow shot.

9. Avoid long discussions on learning the parts of equipment used. Teach just enough so archers will know how to safely use the equipment.
10. Allow each archer to feel the satisfaction of hitting the target as quickly as possible.

## **Cub Scout Archery Training—Youth**

### **Section I (20 minutes)**

- A. Safety Guidelines, page 66
- B. Equipment, page 69
  1. Review bows, bowstrings, arrows, arm guards, finger tabs, quivers, points of aim, target butts, target faces, and backstops.
  2. Review how to maintain, store, and care for equipment.
  3. Review how to string and unstring a bow. (*Optional*)

### **Section II (40 minutes)**

- A. Archery Shooting Basics, page 66
  1. Eye Dominance, page 66
  2. Stance, page 66
  3. Nock the Arrow, page 67
  4. Establish the Bow Hold, page 67
  5. Draw, page 67
  6. Aim, page 67
  7. Anchor, page 67
  8. Release or Loose, page 67
  9. Follow-Through, page 67
  10. Retrieve Arrows, page 67
- B. Practice, practice, practice

### **Section III (60 minutes) (optional activities)**

- A. The difference between an End and a Round, page 68
- B. Archery Games & Activities, page 68
- C. Cub Scout Awards (Refer to *Cub Scout Shooting Sports Guide*, No. 510-322, in Appendix 20 of this guide)

## **Lion and Tiger Cubs and Archery**

Lion and Tiger Cubs and their adult partners may participate in archery activities. The adult partners must be included in all archery activities. Each Lion and Tiger Cub must be paired with their adult partner before being allowed to shoot.

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 previous experience working as a group and may require more time to understand how the range operates. Lion and Tiger Cubs have a wide range of ability and experience levels, so be ready for anything!

## Safety Guidelines

Lion and Tiger Cubs with their adult partners, Cub Scouts, Webelos Scouts, and AOL Scouts should learn these simple safety rules. When training archers to shoot, be sure to have the proper equipment, secure and safe ranges, and clear safety instruction.

1. Observe all state and local laws on using a bow and arrow.
2. Shoot only with proper range supervision.
3. Always check your equipment before shooting. All defective equipment should immediately be removed from the range.
4. Be sure to include all of the safety guidelines and the proper whistle codes.
5. Bows and arrows should be used only in places set aside for their use.
6. Use only arrows that have been measured for your proper draw length. Arrows that are too short may cause personal injury or damage to the bow and arrow.
7. Always wear an arm guard and finger tab or glove.
8. Keep the arrows in the quiver until everyone is on or behind the shooting line and the Rangemaster has indicated that you may get in proper shooting position.
9. **Archers straddle the shooting line, with one foot on either side.**
10. Always keep your arrows pointed down or toward the target.
11. Only release an arrow when you can see its full clear path to the target.
12. Shoot only at the target in front of you.
13. Stop shooting immediately upon signal from the Rangemaster or if anyone crosses in front of the shooting line or in front of or behind the targets.
14. Always walk, never run, when on the archery range or while carrying arrows.
15. Stay on marked paths. Travel the direction in which the targets are marked.
16. On a target range, leave the bow at the shooting line.
17. Always practice courtesy and good sportsmanship.

### *Know the Proper Whistle Codes*

**Two blasts.** Move up to the shooting line.

**One blast.** Fire the proper number of arrows.

**Three blasts.** Cease firing. Move to the target. Retrieve and score arrows.

**Five or more whistle blasts.** Cease firing. Stay where you are. This is an EMERGENCY. Officials will tell the archers what action to take either verbally or by whistle code.

Remember, there is only ONE command to shoot – ONE blast of the whistle.

For any command of more than one blast, STOP shooting. Watch and listen for further instructions.

## *Sun Safety on the Shooting Range*

The American Academy of Dermatology advises the following protection tips against damaging rays:

- Limit exposure to sun between 10 a.m. and 4 p.m. when the sun's rays are the strongest.
- Generously apply sunscreen with a sun protection factor (SPF) of at least 15 and reapply it every two hours when outdoors, even on cloudy days.
- Wear protective, tightly woven clothing, such as a long-sleeved shirt and pants.
- Wear a hat with a wide, 4-inch brim and sunglasses with UV protective lenses.
- Stay in the shade whenever possible.
- Avoid reflective surfaces, which can reflect up to 85% of the sun's damaging rays.

## **Archery Shooting Basics**

The following instructions are written for right-handed archers. When training left-handed archers, reverse the instructions as necessary.

### *Eye Dominance*

Before shooting a bow, the archers should determine which eye is dominant. Just as people are either right- or left-handed, one eye is more dominant than the other. Discovering which eye an archer favors is important because it could determine on which side the bow should be held.

To find which eye is dominant, have archers 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.

Assign archers, leaders, and parents in pairs to assist each other, then have them check with the Rangemaster.

***Archers should usually draw back the bowstring with their dominant hand, even if it does not match their dominant eye. If they are cross-dominant, you may suggest they close their dominant eye while shooting.***

### *Stance*

Stance is the correct foot position of the archer. The goal is to provide a solid foundation for the shot. An archer is most stable in an open stance.

1. Stand with feet **straddling** the shooting line.
2. Feet should be about shoulder-width apart.

3. Move the foot closest to the target back about 3 inches.
4. Turn the toes of both feet toward the target about 30 degrees.

### ***Nock The Arrow***

To nock the arrow is to securely place the arrow on the bowstring. When the arrow is securely placed on the bowstring the archer feels and/or hears the arrow “snap” into place.

1. Grasp the arrow below the nock.
2. Bring the arrow up and over the bow and place it on the arrow rest.
3. Spin the arrow so the index vane (usually a different color) points away from the riser (bow) and towards the archer’s body.
4. Push the nock into place on the bowstring directly below the nocking point.

### ***Hook and Grip***

Archers touch the bow in only two places: the bowstring where they “hook” it, and at the grip where they “grip” the bow. *Hook* is when an archer curls three fingers around the bowstring directly beneath the arrow. The *grip* on a bow is where the archer places their hand on the bow.

1. Curl the bowstring with the fingertips of the index, middle, and ring fingers under the arrow.
2. Pull the bowstring back enough to apply a small amount of tension.
3. Center the meaty part of the thumb on the back of the bow grip.
4. Point the thumb toward the target and angle your knuckles 45 degrees. Check to be sure the grip is relaxed.

### ***Raise the Bow***

This step gives the archer the opportunity to confirm that all previous steps have been completed before proceeding. Once that is done, do the following:

1. Turn the head toward the target.
2. Rotate the elbow of the bow arm away from the bowstring.
3. Lift both arms to shoulder height.
4. Extend the bow arm fully, keeping the bow vertical.

The archer raises the bow in preparation for drawing back the bowstring. This gives the archer a sense of direction by knowing where the bow is in relation to the target. While raising the bow, it is important to keep the rest of the body still.

### ***Draw***

Pull the bowstring back toward the face. The draw is seamless and smooth.

### ***Anchor***

The archer should pull the bowstring back to a consistent anchor point every time to maintain accuracy. For beginning archers, the corner of the mouth is the preferred anchor point.

1. Settle the index finger of the draw hand into the corner of the mouth.
2. Keep the draw hand relaxed and against the face.

### ***Hold***

Move the draw arm elbow slightly behind the arrow to brace the draw weight of the bow. The tension of holding the bow is not transferred from the shoulder and arm muscles to the back muscles

### ***Aim***

Aim is lining up the arrow to the target. Simply put, the arrow will go where it is pointed. The goal is to focus equally on the target and the arrow point.

1. Place the point of the arrow on the intended target area.
2. The eye focus is equally on the arrow point and the target.

### ***Release/Follow-Through***

Release occurs when the archer relaxes the tips of the fingers that are hooking the bowstring, allowing the bowstring to push the fingers out of the way. Follow-through is the finish position.

1. Relax the fingertips to allow the bowstring to push the fingers out of the way.
2. Keep the bow arm up.
3. Finish the shot by allowing the draw hand to fall between the ear and the shoulder.

### ***Retrieve Arrows***

After all archers have shot their allotment of arrows (usually around five, if time permits), demonstrate and explain the proper methods to retrieve arrows from the target and ground.

First, before any archer goes to retrieve arrows, permission must be granted by the range officer. The range officer will observe the archers and indicate when all archers have completed shooting and it is safe to retrieve arrows.

1. Follow the proper commands to move to the target line. (*Three whistle blasts.*) Archers should walk slowly to the target line and watch for arrows on the ground.

2. Remove arrows by standing to the side of the target and brace it with the side of the body. Place one hand on the target at the base of the arrow. **(If two people are shooting at the same target, only one should remove their arrows at a time. The other archer should stand back at the target line.)**
3. Grasp the arrow near the target and pull firmly and slowly straight back toward the shooting line.
4. Place the arrow on the ground.
5. Remove the others in the same manner and place them on the ground.
6. After all the arrows have been removed, pick up the arrows from the ground. Cover the points with one hand and grasp the arrows near the fletchings (vanes) with the other hand. If an arrow is buried under the grass, it should be withdrawn by pulling it forward without lifting until it is clear of the grass.
7. Walk back to the shooting line carrying the arrows parallel to the ground with both hands in front of the body. Place the arrows into the quiver, point down.
8. Move off the range, or prepare to resume shooting as commanded.

### Archery Games and Activities

A variety of games or activities can be done using archery skills. Different ranges could be set up to play a particular game, or courses could be set up where archers go from station to station. Archery games and alternate activities work well, especially when archers are in camp for more than one day or if a council sponsors a special archery camp for Cub Scouts.

**Remember, any place there is an archery range and there is archery shooting, even when playing a game or activity, a qualified archery Rangemaster must be present.**

Shooting games are designed to improve shooting skills. Remember, safety is a must.

The following activities and opportunities would be appropriate for Lion and Tiger Cub Scouts with their adult partners, Cub Scouts, Webelos Scouts, and AOL Scouts.

#### *Shooting a Competitive Round*

When shooting a competitive round, an “end” is shooting six arrows at a target. A “round” is the total number of ends to complete the round.

**For example:** An **American round**, in archery, a target-shooting event consisting of **five ends** (six arrows each), shot from distances of 60, 50, and 40 yards

#### *Tic Tac Toe*

Place a Tic-Tac-Toe grid on a target back (You can use flip-chart paper to make the grid or put up nine separate sheets of paper in a 3x3 grid pattern.) Divide the group into two lines, and have them stand in a single file 20 feet from the target. Each team will alternate their archers. Each archer will shoot one arrow and step back. The second and each succeeding archer will shoot one at a time. The first team to get complete a horizontal, vertical, or diagonal row wins.

#### *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 archer will shoot one at a time. The first team to get two points is the winning team.

#### *Balloon Bust*

Place a variety of balloons on a target mat. (They may be different sizes and colors.) 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 archer will shoot one at a time. The first team to break a set number of balloons is the winning team.

#### *Archery Practice Fun*

Any station set up for participants to practice skills can be fun for Cub Scouts. The archers have limited times to shoot arrows, so the opportunity to practice at a council camp or event is a great experience for them.

#### *Range Layout*

**A sample outdoor archery range layout is included at the end of this section.** Safety is a primary concern when operating an archery range, and the safety rules must be followed.

If at all possible, the range should be laid out so shooting is done in a northerly direction so archers are never facing the sun. To protect arrows, all outcropping rocks should be reduced to ground level. Grass should be planted so a good sod is developed. Keep grass cut close and raked clear. Sandy soils need no ground cover.

Important! Arrange facilities so there is no possibility of non-participants inadvertently walking behind the targets while shooting is in progress!

**Inflatable Ranges** (Only commercially manufactured equipment is allowed to be used.) *(This activity must be supervised by a BSA certified Archery Rangemaster or USA Archery Level 1 or higher instructor.)*

If an inflatable range is utilized, appropriate side and rear boundaries must be in place. (Minimum 10 ft. on the side, 15 ft. behind the target zone and 15 feet behind the shooting line.) There must also be a distinct gated entrance to access the shooting line. (*Manufacturers guidelines must always be followed if they are more stringent.*) (*You may only use manufacturers recommended equipment.*)

### Range Operation Rules

1. Never operate a range without adult supervision.
2. Be sure all safety rules are understood and followed.
3. Range flags must be flown while the range is in use.
4. Check all equipment before using to be sure bows, bowstrings, and arrows are in safe condition.
5. All spectators and archers waiting to shoot must remain behind the waiting line at least 3 yards behind the shooting line.
6. Archers must wear shoes on the range at all times.
7. Archers may not allow anyone to hold a target for them.
8. Archers must not talk or disturb shooters on either side when they are shooting.
9. Archers stay on the shooting line until their target partners have shot their last arrows, and then both step back together.
10. Use the proper whistle codes.
11. Use the proper scoring techniques.
12. Always walk on the range.

### Sample Range Rules Poster



## ARCHERY RANGE RULES AND COMMANDS

#### ARCHERY RANGE RULES

1. Always walk on the range.
2. Keep your arrows in your quiver until you are told to shoot.
3. Only release the bow string when an arrow is nocked and safely pointed toward the target.
4. Leave dropped arrows on the ground until instructed to retrieve them.

If there is an emergency on the range, immediately tell the instructor.

#### WHISTLE COMMANDS

- 2 WHISTLE BLASTS = Go to the line.
- 1 WHISTLE BLAST = Shoot.
- 3 WHISTLE BLASTS = Retrieve arrows.
- 5 OR MORE WHISTLE BLASTS = Emergency. Immediately stop shooting, return bows to the rack, and go behind the waiting line.

(From USAA Archery Certification Course – Level 1 manual. Used with permission.)

This poster can be found in the *Cub Scout Shooting Sports Guide*, No. 510-322, in Appendix 20 of this guide.

### Equipment

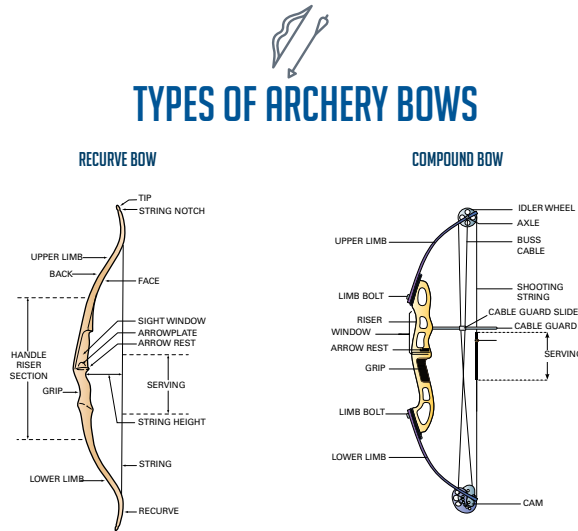
When not in use, archery equipment should be kept in locked storage to protect it from weather, rodents, and theft.

### Bows

The two most common bows used by Cub Scouts are:

**Recurve:** Recurve bows are the traditional bows for learners. It allows the archer to better learn the proper finger tension. Modern recurve bows are made entirely either of fiberglass, or a composite of wood and fiberglass. Both options are satisfactory for beginning instruction.

**Compound:** Compound bows are generally harder to master, but they will produce more consistent results. The pulley system provides a mechanical advantage to assist where strength or stamina is an issue.



This poster can be found in the *Cub Scout Shooting Sports Guide*, No. 510-322, in Appendix 20 of this guide.

### Care of Bows

Some basics to follow in the care of your bows whether they be wood, metal or fiberglass:

- Never lay a bow on the ground.
- Never stand a bow on end.
- Store bows by laying them on pegs that support the bow in the handle riser section.
- Although finishes are waterproof, it is best to dry the bow if it gets wet. Bow wax will help preserve the finish on the bow.
- Carry a bow unbraced (unstrung) in a bow case to protect it from scratches and possible damage.
- Never leave a bow in an automobile as the heat from the sun may cause damage. Store bows unstrung and, if possible, in a cool place with moderate humidity.

### Bowstrings

Keep the bowstring well waxed with either a commercial bowstring wax or one you make yourself using one part resin to three parts beeswax.

Inspect the string carefully before and after each day's shooting. If any of the strings are broken, discard the string. Check the serving and repair or replace it if it is loose or worn.

Replacement bowstrings should be ordered according to the length and weight of the bow. If a bow is marked 56 inches, 20 pounds, order a 56"-20# string. Do not order by the actual measured length of the string.

### ***Bow Stringer***

Always use a bow stringer to string a recurve bow. The step-through and push-pull methods can cause permanent damage to bows by twisting their limbs. A bow-stringer is a piece of string about 5 feet long that has a leather cap at each end. The larger cap attaches over the bottom bow notch and the smaller cap goes over the upper bow notch. The top cap is small enough for the bowstring to be slipped into the bow notch.

To string a bow, position the bottom end of the bowstring in the bottom notch and slip the caps of the bow-stringer over the ends of the bow. Holding the bow by the grip, allow the stringer to rest on the ground. Step on the center of the bow stringer and smoothly pull upward on the bow grip to tension the bow. Using the thumb and index finger, slide the top loop of the bow-stringer into the upper bow notch.

Check the bow to make sure the bowstring is properly in place. To unstring a bow, tension it and guide the top loop down. Bows that are not in use should be unstrung before being stored.

### ***Arrows***

A shaft made of carbon, aluminum, wood, fiberglass, or composite materials with a point on one end and a nock on the other end. Fletching, which can be either feathers or plastic vanes, are located on the arrow near the nock end.

One way to determine if an arrow is long enough for an archer is to place the nock of the arrow in the center of the chest and hold the shaft with both hands extended in front of them. The point of the arrow should extend at least one inch further than where their hands come together.

**Field point:** Similar to a target point and has a distinct shoulder, so that missed outdoor shots are easier to remove from obstacles such as tree stumps.

**Fletching:** The stabilizing feathers or vanes of an arrow.

**Index fletch or vane:** A different-colored fletch or vane used to indicate proper arrow positioning in relation to the bowstring or bow.

**Nock:** The plastic attachment or grooved notch at the end of an arrow used to attach the arrow to the bowstring.

**Shaft:** The main structural element of an arrow.

**Target point:** Attached to the front end of the arrow and penetrates the target.

### ***Care of Arrows***

Feathers on arrows should be kept dry. If the feathers become wet, wipe them dry and clean before storing. Separate the arrows until they are dry to allow the feathers to expand and regain their original shape. If the feathers are matted down, they can be steamed to return them to their original shape.

Discard any fiberglass or wooden arrows that have splinters or cracks in the shaft.

The arrows can be kept in the quivers during the season, but if they are not going to be used for several months, it is best to store them in the boxes in which they were received. These boxes have individual holes for each arrow. This will preserve the feathers and help prevent wooden arrows from warping.

### ***Arm Guards***

The arm guard is either leather or plastic with at least two elastic straps. It is slipped over the forearm that holds the bow and provides protection from the slap of the bowstring after the arrow is released.

### ***Care of Arm Guards***

Arm guards should have laces or elastic replaced when needed. Arm guards should be kept in labeled boxes. All leather goods will last longer if stored in a cool, dry place and occasionally cleaned with saddle soap.

### ***Finger Tabs***

Finger tabs are preferable to gloves for group instruction because they present fewer fitting problems. Made of smooth leather, finger tabs absorb the friction of the bowstring across the fingertips. Without them, painful blisters can develop. Many designs are available, but for beginners the simplest and most inexpensive type is satisfactory.

***Every Cub Scout archer must use an arm guard and finger tabs.***

### ***Quivers***

For novice shooters, having a quiver to use when returning arrows from the target to the shooting line will improve safety procedures.

## Targets and Scoring

### Target Butts

Targets for beginners should be about 48 inches in diameter and made of straw or Ethafoam. The target butts are placed on soft-pine tripods, about 6 inches off the ground. (Ethafoam is the proper material for a target butt. Plastic foam is messy and does not last long.) Keep the targets close to the ground so missed arrows will not go far and so younger archers can reach the highest arrows easily.

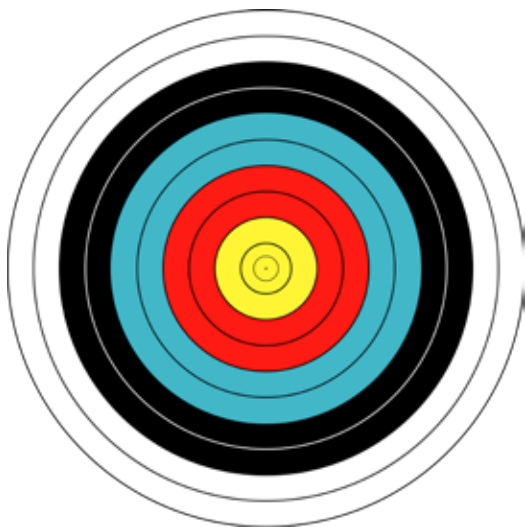
Three to five bales of straw may be stacked to serve as target butts. Make sure the bales are tied back to a post so they will not fall forward on someone pulling arrows. Care should be taken in stacking the bales to be sure they are very close together. Keep the bales off the ground by stacking them on old tires.

### Target Faces

The 48-inch standard target face is recommended for use on outdoor ranges. These are printed on several types of material, including heavy paper, canvas, and oil cloth. If you use paper targets, paste them to light cardboard or they will not last long. Smaller targets are made to be shot at from shorter distances.

The target is made up of five concentric color zones. Each zone is divided by a thin line into two scoring zones of equal width. Each circle represents the following point values:

- Inner gold = 10 points
- Outer gold = 9 points
- Inner red = 8 points
- Outer red = 7 points
- Inner blue = 6 points
- Outer blue = 5 points
- Inner black = 4 points
- Outer black = 3 points
- Inner white = 2 points
- Outer white = 1 point



### Care of Target Faces

Target faces should be removed from mats when the mats are being moistened. Masking tape applied to the back of a target face that is tearing from much use will help it last longer. Center patches that cover the gold and part of the red scoring areas on the target face will double the life of the target faces. The patches must be carefully aligned so the lines marking the scoring areas line up exactly.

### Backstops

Baled straw stacked behind the target will catch wild shots. Also, several layers of burlap, old canvas, or rugs hanging loosely over a horizontal pole or plank 1 or 2 inches wide will stop arrows that miss the target. These materials will last much longer if they can be rolled up and stored between seasons.

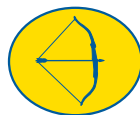
### Cub Scout Shooting Sports Awards

Cub Scouts earn the shooting sports awards in the following order:

1. **Rank-level patch.** Complete level 1 requirements. This involves participation in archery and acquiring basic knowledge of proper technique, safety, and operations. The patch is only awarded one per program (rank) year.



2. **Discipline device (pin).** Complete the level 2 requirements. This is designed to help a Cub Scout develop and demonstrate further skills, proficiency, and knowledge in archery. These skills are rank specific and provide a progression of skills appropriate for each age and rank of Cub Scouting.



## How To Set Up Outdoor Target Archery Range

Set up for wide-open, cleared space.

### 1. Select the Orientation of the Range

- Avoid shooting into the sun by facing North.
- The ground should be flat and free of obstacles.
- Look for a natural backstop such as a berm to stop arrows. (If there is no berm, provide a minimum of 150 feet of open area behind the targets.)
- The safety zone on the side should be

### 2. Place Range and Safety Lines

- Rope, eco-friendly spray paint or chalk are ways to lay down the range lines outdoors. Follow the guidelines illustrated on the following page.
- Target Line – The purpose of the Target Line is to provide archers a safe place to stand when waiting for their turn to pull arrows from the target.
- Shooting Line – The shooting line is placed close enough to the Target Line to ensure success for the archers to hit the target. This line can be moved back to greater distances as archers become more advanced. The Shooting Line is placed 15-30 feet from the Target Line.
- Waiting Line – Archers stand behind the Waiting Line before and after shooting their arrows. 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 archers 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

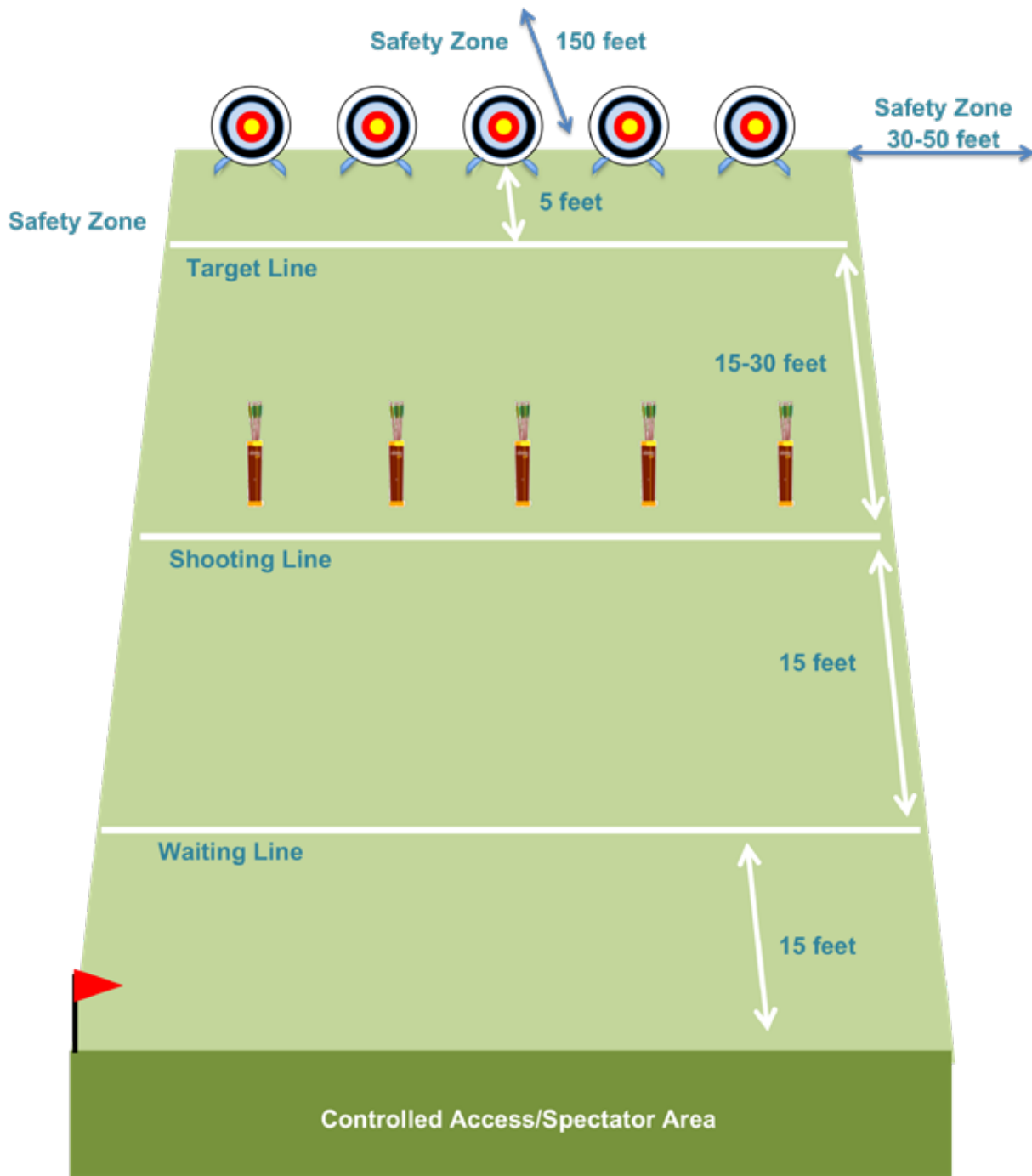
- Place targets in front of the natural berm. If a natural berm is not available, place targets in a wide-open space with a minimum safety zone of 150 feet behind the targets.
- Evenly space targets in front of the berm. It is best to place the targets five feet, or two arrow lengths, from target-center to target-center. Evenly spaced targets allow for multiple people to shoot at the same target safely.

### 4. Place the Equipment

- Bows – The bow rack is placed between the Waiting Line and the Shooting Line. The bows are placed in the bow rack.
- Ground Quivers – Ground quivers are evenly spaced apart on the Shooting Line. Two quivers per target are suggested.
- Arrows – Place arrows in a central location near the bow rack. Once the instructor is comfortable with an archer's skill level, arrows may be placed in each individual archer's ground quiver.



# Outdoor Range Layout: Wide Open Space



## Directing Shooting Sports in a Council Program

- Know and strictly follow all the safety regulations related to BB guns, slingshots, throwing sports and archery.
- Train staff about safety regulations for all sports areas.
- Train all campers and leaders in the safety fundamentals.
- Check the performance and safety aspects of all areas.
- Restrict from using an area, any person who does not follow all safety instructions.
- Set up all areas in a practical, safe, and inviting manner.
- Always provide qualified supervision for each area.
- Train, schedule, and supervise staff to perform daily routines.
- Check the inventory of all shooting sports equipment. Check equipment to make sure there is enough equipment, and obtain any needed equipment.
- Keep an adequate stock of BB guns, slingshots, throwing sports and archery equipment on hand and be accountable for all inventories.
- Make sure equipment is properly stored and secured appropriately when not in use.
- Organize and promote individual and team competition.
- Report any and all operational and personnel problems to the appropriate staff who may be overseeing the program, camp or activity.
- If appropriate file a closing inventory, a closing report, and recommendations as instructed.

## Safety Instruction Guidelines

To be effective, instruction should use the EDGE method of instruction:

- Explain the safety and safe use of equipment
- Demonstrate proper techniques in equipment usage
- Guide participants in developing skills related to the specific discipline
- Enable participants to meet the goals of the intended program.

Give instruction in simple terms. Controversial methods should be omitted. Make it clear that only one method will be used and that while other methods may exist, there are specific procedures for the current range that must be followed. Instructors should exactly follow the method they teach.

Shooting sports skills must be learned by practice, with each participant learning the rules of safety and self-discipline by putting them into practice. Participants quickly learn that there is no place for foolishness, carelessness, or horseplay when they handle shooting sports equipment. The instructor must

always be mindful of their responsibility to make safety rules thoroughly understood before, during, and after instruction and practice. At the same time, they must have warmth, patience, and understanding for the youth who may not understand an instruction or who finds a skill challenging.

## Positive Aspects of Shooting Sports

From material by R.A. Soldivera, shooting sports consultant

- Shooting sports are part of the Olympic and Paralympic Games.
- Shooting sports do not require participants to start at an early age to be successful. A person may start shooting in high school and compete on a national level before entering college.
- Age does not seem to be a factor in learning shooting sports. Shooting sports have had a national champion who was more than 60 years old, and one as young as 16 years old.
- Shooting sports are for everyone.
- Shooting sports may be conducted both indoors and outdoors.
- Shooting sports may be featured as both a winter sport and a summer sport.
- Shooting sports may offer individual participation, team participation, or both at the same time.
- Shooting sports are recognized as being safe with few injuries.
- Students who have participated in shooting sports report a marked improvement in their ability to concentrate when they apply the principles of these sports to their academic pursuits.
- Sportsmanship has been described as “the quality and conduct of a person who accepts victory and defeat graciously.” Shooting sports has a reputation for high sportsmanship conduct among its participants.
- People with physical disabilities can compete at high levels of competition in shooting sports.
- College scholarships are awarded in shooting sports.

## APPENDIX 7 - PRIVATE PROPERTY APPROVAL FOR SHOOTING SPORTS BY UNITS, DISTRICTS AND COUNCILS

### Background: Why is this important?

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

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

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

1. Appoint a shooting sports chair and committee for the council with district representatives on the committee.
2. Appoint a certified NRA chief Range Safety Officer(s) to evaluate proposed private property ranges using the forms referenced below. Once the forms are completed, they are presented to the shooting sports committee and Scout executive for approval and are to be used by local units, districts, or the council.

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

### Permission to Enter Upon and Use Land and Evaluation of Private Property Shooting Ranges—Private Property Range Evaluation Checklist

Download BSA form 430-065 and complete it before using any private land for any kind of shooting sports. The form is available at <https://www.scouting.org/outdoor-programs/shooting-sports/>

## APPENDIX 8 - PROHIBITED ACTIVITIES

For the BSA unauthorized activities, visit <https://www.scouting.org/health-and-safety/gss/gss07/>

## APPENDIX 20 - CUB SCOUT SHOOTING SPORTS GUIDE

### A Guide to the Cub Scout Shooting Sports Awards for Unit Leaders, Councils, Districts, and Range Masters

#### A WORD ABOUT YOUTH PROTECTION

Child abuse is a serious problem in our society and, unfortunately, it can occur anywhere, even in Scouting. Because youth safety is of paramount importance to Scouting, the Boy Scouts of America continues to strengthen barriers to abuse through its policies and leadership practices; through education and awareness for youth, parents, and leaders; and through top-level management attention to any reported incidents.

#### KEY TO SUCCESS: LEADERSHIP EDUCATION AND TRAINING

Registered leaders are required to complete Youth Protection training within 30 days of registering.

Parents, guardians, and any adults working with youth (whether in Scouting or not) are also encouraged to take the training.

To take the training online, go to [www.myscouting.org](http://www.myscouting.org) and establish an account. If you do not yet have your membership number, be sure to return to MyScouting later and enter your number for training record credit.

**The training must be taken every two years to remain current.** If a volunteer does not meet the BSA's Youth Protection training requirement at the time of recharter, the volunteer will not be reregistered.

#### BSA YOUTH PROTECTION TRAINING

The BSA created Youth Protection training to address the needs of different age groups as follows.

- **Youth Protection Training for Volunteer Leaders and Parents** — Adults come away with a much clearer awareness of the kinds of abuse, the signs of abuse, and how to respond and report should a situation arise.

- **Youth Protection Guidelines: Training for Adult Venturing Leaders** — Designed to give guidance to the leaders in our teenage coed Venturing program. Supervision and relationship issues have a different focus regarding personal safety with this age group.
- **It Happened to Me** — Developed for Cub Scout-age boys and girls from 6 to 10 years old and their parents. It addresses the four rules of personal safety: Check first, go with a friend, it's your body, and tell.
- **A Time to Tell** — A video for Scouts BSA-age boys and girls from 11 to 14 years old — the target group for most molesters. It stresses the three R's of Youth Protection: Recognize, Resist, and Report.
- **Personal Safety Awareness for Venturing** — Developed for youth ages 13 through 20 in the coeducational Venturing program. It deals with issues pertinent to this age group.

The BSA has Youth Protection policies to protect youth, and these same policies help protect adult volunteers. These and other key policies are addressed in the training:

- Two-deep leadership is required on all outings.
- One-on-one contact between adults and youth members is prohibited.
- Privacy of youth is respected.
- Separate accommodations for adults and Scouts are required.
- Units are responsible for enforcing Youth Protection policies.

To find out more about the Youth Protection policies of the BSA and how to help Scouting keep your family safe, see the *Guide to Safe Scouting* at [www.scouting.org/HealthandSafety/GSS/toc.aspx](http://www.scouting.org/HealthandSafety/GSS/toc.aspx) and the Parent's Guide in any of the Cub Scouting or Scouts BSA handbooks, or go to [www.scouting.org/Training/YouthProtection.aspx](http://www.scouting.org/Training/YouthProtection.aspx).

## PREFACE

Cub Scout shooting sports 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 BSA shooting sports 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 shooting sports Rangemasters in the *Boy Scouts of America National Shooting Sports 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 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.
- **The Multi-Gun Airsoft Experience introduced in August 2015 was not designed for participation in this award. Airsoft guns are not approved for use in the Cub Scout shooting sports program.**
- **All local, state, and federal laws for BB guns, archery, and slingshot shooting must be followed.**

This *Cub Scout Shooting Sports 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 *Boy Scouts of America® National Shooting Sports Manual*, No. 430-938, which is the reference for any shooting sports activities in the Boy Scouts of 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/scoutsourc/HealthandSafety/GSS](http://www.scouting.org/scoutsourc/HealthandSafety/GSS).



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## SECTION 1: INTRODUCTION

The goal of the *Cub Scout Shooting Sports Guide* is to support shooting sports directors, Rangemasters, on-range adult volunteers, and unit leaders as they assist Cub Scouts in meeting the requirements of the Cub Scout shooting sports awards according to Boy Scouts of America policy and practice. This resources supports — but does not replace — the *Boy Scouts of America National Shooting Sports Manual* (No. 430-938).

The Cub Scouting shooting sports 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 BSA property where there are current and properly trained BSA shooting sports Rangemasters and where all standards for BSA shooting sports are enforced.

### Purpose of the Cub Scout Shooting Sports Awards

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

Beyond capturing that enthusiasm, the BSA created the Cub Scout Shooting Sports Awards program to encourage in Cub Scouts the development of safe shooting practices and proficiency in shooting sports. As Cub Scouts participate in shooting sports 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 and Shooting Sports

Lions and their adult partners may participate in archery or slingshot shooting sports activities. Tigers and their adult partners may participate in all Cub Scouting shooting sports 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 shooting sports 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 Shooting Sports Awards

Cub Scout shooting sports awards 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.

**Level 1** involves participation in a discipline and acquiring basic knowledge of proper technique, safety, and operations in that discipline.

**Level 2** is designed to help a Cub Scout develop and demonstrate further skills, proficiency, and knowledge in a shooting discipline. Level 2 requirements are rank-specific and provide a progression of skills appropriate to each age and rank of Cub Scouting.

## Earning the Awards

Cub Scouts earn the shooting sports awards in the following order:

1. **Rank-level patch.** Choose a discipline: BB gun, archery, or slingshot. Complete the level 1 requirements for that discipline. The patch is awarded only once per program (rank) year.
2. **Discipline device (pin).** Complete the level 2 requirements for the same discipline in which the patch was earned.
3. **Additional discipline devices.** Earn pins for the remaining disciplines by completing the level 1 and level 2 requirements in those disciplines. (NOTE: Requirements for both level 1 and level 2 must be completed for each successive discipline.)

**Disciplines:** BB gun, archery, slingshot

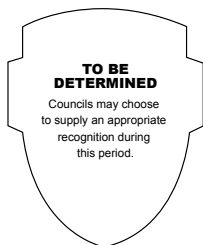
**Program years/ranks:** Lion, Tiger, Wolf, Bear, Webelos/Arrow of Light

### Sample situation:

A new Tiger completes the level 1 requirements for BB guns and earns the Tiger shooting sports patch at a day camp in the district. The Scout later attends another day camp and completes the level 2 requirements and earns the BB gun pin to attach to the patch. Later that year, the district holds a Cub Scout shooting sports day at the local park. This time the Cub Scout completes both the level 1 and level 2 for archery. He or she earns the archery pin, which will be worn on the Tiger shooting sports patch.

**See section 2 for more information on awards and requirements.**

## Shooting Sports Awards



LION



TIGER



WOLF

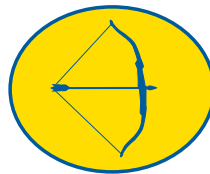


BEAR



WEBELOS

## Shooting Sports Award Pins



## SECTION 2: AWARD REQUIREMENTS AND EXPLANATIONS

### BB GUN LEVEL 1 REQUIREMENTS

#### Level 1: Participation and Knowledge – ALL RANKS (Lions are not approved for BB guns)

1. Explain what you should do if you find a gun. Recite the four safety reminders.
2. On an approved range in your city or state, explain how to use the safety mechanism, and demonstrate how to properly load, fire, and secure the BB gun.
3. On an approved range, demonstrate to qualified leadership good shooting techniques, including eye dominance, shooting shoulder, breathing, sight alignment, trigger squeeze, and follow-through.
4. On an approved range, show how to put away and properly store BB gun shooting equipment after use.

### TRAINING CUB SCOUTS

The objectives of this award are to teach Cub Scouts how to use a BB gun safely, to teach basic BB gun shooting skills, and to have fun. Cub Scouts should have the opportunity to fire a BB gun during the first orientation period. This activity is not intended to produce expert marksmen.

The instructor must always be mindful of his or her responsibility to make safety thoroughly understood before, during, and after instruction and practice. At the same time, he or she must have warmth, patience, and understanding for the Scout who finds the skill difficult to learn.

#### Teaching tips

The coach-pupil method is effective for all types of skill training and is particularly effective in shooting sports. To put this method into practice:

- Put the BB gun in the Cub Scout's hand as soon as possible so he or she can understand the BB gun while the basics are explained.
- Group participants into pairs (Scout and parent/guardian would be ideal).
- The instructor demonstrates the activity or action to be followed before the whole group. When demonstrating techniques, be sure to do them correctly.
- The instructor then circulates among the pairs, giving a word of advice or assistance, recognizing good work, correcting errors, and determining how well the participants understood the method.
- The Scout practices while the parent coaches. Let

Scouts shoot the first round. At a predetermined signal, reverse the roles. Progressively, participants are learning by observing, by doing, and by coaching.

- Use a positive approach. Use praise sincerely. Before making a correction, question the fault to find the cause. Do show a Scout what they might be doing wrong.
- Avoid long discussions on the parts of the equipment used. Teach just enough so participants will know how to safely use the equipment.
- Allow each Scout to feel the satisfaction of hitting a target as quickly as possible.

### NOTES ON BB GUN LEVEL 1 REQUIREMENTS

#### Level 1, Requirement 1

*Explain what you should do if you find a gun. Recite the four safety reminders.*

This requirement should be reviewed while the Scouts are preparing for their turn on the range or in a pre-event activity. A lively chant will help them memorize the reminders.

#### The Four Safety Reminders

What should you do if you find a gun?



**STOP!**



**LEAVE THE AREA!**



**DON'T TOUCH!**



**TELL AN ADULT!**

#### Level 1, Requirement 2

*On an approved range in your city or state, explain how to use the safety mechanism, and demonstrate how to properly load, fire, and secure the BB gun.*

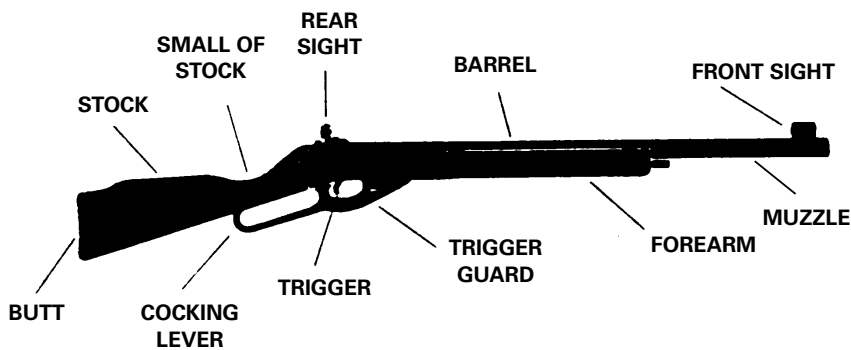
#### Safety Guidelines

When training youth to shoot, be sure to have proper equipment, secure and safe ranges, and clear safety instruction.

Gun safety is a simple but continuous process. Youth must first learn about safe gun handling. Safe handling skills are developed through practice. The most important safety element is attitude. All the safety knowledge and skills are of little value unless they are used. Being safe means consciously keeping a BB gun under control.



Before handling any gun, a Scout must always get permission from his or her parent or guardian. If this is their first BB gun shooting experience, the Scout should sit down with an adult and discuss under what circumstances the gun can be handled. They must understand that the BB gun is not a toy.



The following basic rules apply to handling a BB gun under any circumstances. Also review any applicable local, state, and federal laws, and be sure to follow them on your range.

1. **Always keep the gun pointed in a safe direction.** This is the primary rule of gun safety. “Safe direction” means that the gun is pointed so that even if it were to go off, it would not cause injury or damage. The key to this rule is to control where the muzzle or front end of the barrel is pointed at all times. Common sense dictates the safest direction depending on circumstances.
2. **Always keep your finger off the trigger until you are ready to shoot.** When holding a gun, rest your finger along the side of the gun or the trigger guard. Until you are actually ready to fire, do not touch the trigger.
3. **Always keep the gun unloaded until ready to use.** When you pick up a gun, carefully point it in a safe direction. Check to be certain the safety is on, and if not, engage the safety if possible. Then, while keeping your finger off the trigger, open the action and look inside the chamber(s) to make sure it is clear of ammunition. If the gun has a magazine, remove it before opening the action and make sure it is empty. If you do not know how to open the action or inspect the chamber(s), leave the gun alone and get help from someone who does.
4. **Know how to use a gun safely.** Before handling a gun, learn how it operates. Know its basic parts and how to safely open and close the action. Know how to remove ammunition from the gun or magazine.
5. **Be sure the gun is safe to operate.** Just like other tools, guns need regular maintenance to remain in good working order. Regular cleaning and proper storage are part of the gun’s general upkeep. If there is any question about a gun’s ability to function, then do not use it. Get someone to fix it!
6. **Use only the correct ammunition for the gun.** Only the BB designed for a particular BB gun can be

fired safely in that gun. Do not shoot the gun without loading the proper ammunition.

7. **Wear eye protection.** Always wear eye protection. Shooters and instructors should wear approved safety goggles at all BB gun ranges. BBs might ricochet.

8. **Don’t rely on the safety.** Most guns have a mechanism called a “safety” that helps to prevent the gun from accidentally firing. However, a safety is a mechanical device, which can—and will—fail. Shooters must be trained that the safety mechanism is not a sure, safe way to prevent a gun from firing. Many accidents have occurred because shooters have relied on the safety mechanism to work.

9. **Wear ear protection.** Although not mandatory for BB gun shooting, ear protection may also be worn. Shots fired from guns are loud and the noise could damage the hearing of some shooters.

10. **Know your target and what is beyond the target.** Be absolutely sure to identify the target beyond any doubt. Equally important, be aware of the area beyond the target. Never fire in a direction where there are people or where any other potential for mishap might exist. Think first. Shoot second.

11. **Store guns so they are not accessible to any unauthorized person.** Deciding where and how to store guns and ammunition depends on several factors, including security and accessibility. Safe and secure storage means that untrained individuals (especially children) are denied access to guns and ammunition.

### Level 1, Requirement 3

*On an approved range, demonstrate to qualified leadership good shooting techniques, including eye dominance, shooting shoulder, breathing, sight alignment, trigger squeeze, and follow-through.*

NOTE: The following activities can be taught in advance at a pre-event meeting or during a separate session.

#### Eye Dominance

Before shooting a gun, the participants should determine which eye is dominant. Just as people are either right- or left-handed, one eye is more dominant than the other. Discovering which eye a shooter favors is important because it could determine on which side the gun is held.



To find which eye is dominant, have participants extend both arms in front of them and form a small hole with 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.

### Shooting Shoulder

It is recommended that a shooter use the shoulder that is on the same side of the body as the dominant eye. If the right eye is dominant, place the firearm against the right shoulder. If the left eye is dominant, use the left shoulder. If the shooter has learned to use the opposite shoulder and eye, it may be more comfortable for them to shoot that way.

### Breathing

When shooting, stop breathing before firing a shot. Breathing causes the body to move and makes it difficult to maintain a steady sight picture. Before firing, relax and get comfortable. Then exhale and stop breathing. This technique will help shooters aim by reducing the body and rifle movement in relation to the target. Do not stop breathing for longer than 8 to 10 seconds while aiming at the target. If you are not able to shoot within that time, stop, take a breath or two, and repeat the process.

### Sight Alignment

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

### Trigger Squeeze

“Trigger squeeze” is the term used to explain the manner in which pressure is applied to the trigger. Some other terms commonly used are “trigger pull”, “trigger control”, “trigger press”, and “trigger movement”. While all of these terms are correct, the preferred term is “trigger squeeze” because it accurately describes the smooth application of pressure required.

When ready to begin squeezing the trigger, the index finger should be located on the trigger so that the trigger is about halfway between the tip of the finger and the first joint.

The trigger must be squeezed straight back in a smooth, continuous manner without disturbing the sight alignment. Once trigger squeeze has begun, keep squeezing smoothly and continuously; do not speed up, slow down, or apply pressure in a start-and-stop manner. Use the same type of pressure that would be used to squeeze a drop of liquid from a medicine dropper—a gradual, steady application of pressure until the drop finally falls. Just as it would be impossible to predict the instant that the drop of liquid will fall, it should be impossible to predict the precise instant that the gun will fire. Each shot should come as a surprise.

For best results, trigger squeeze and sight alignment must be done simultaneously.

### Follow-Through

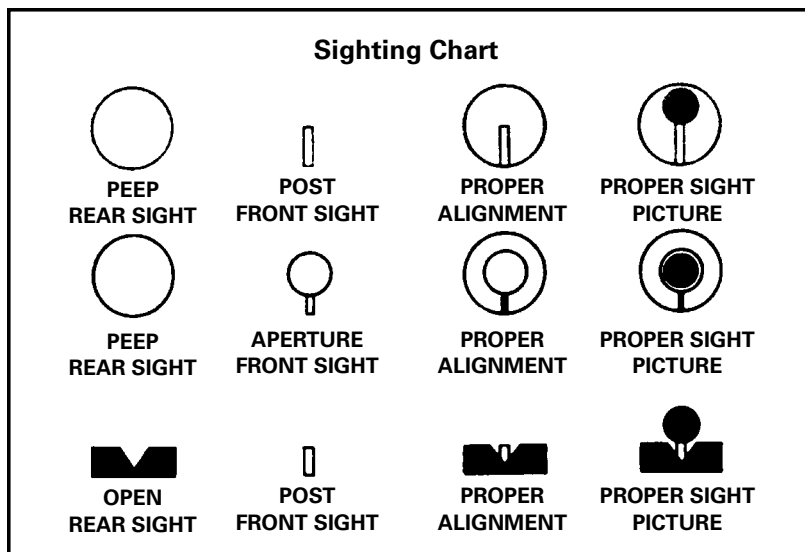
The shooter must also master proper follow-through. Follow-through means to continue to do everything that was being done at the time the shot was fired. In other words, keep aiming until the BB hits the target.

The idea is to prevent any unnecessary movement before the projectile leaves the barrel. Because an air gun takes longer to send a projectile out of the barrel, proper follow-through is particularly important.

### Level 1, Requirement 4

*On an approved range, show how to put away and properly store BB gun shooting equipment after use.*

- Work with your range master according to local practices and procedures. In most cases:
  - The BB gun should be unloaded.
  - The safety mechanism should be engaged.
  - The BB gun should be protected from scratches and scrapes from other guns.
  - The BB gun should be locked or otherwise secured in a safe place.



Proper sight alignment is a key to accurate shooting. Any misalignment of the front sight with the rear sight introduces an angular error that is multiplied with distance.

A correct sight picture is obtained by achieving the proper alignment and then putting the aligned sights into their proper relationship with the target.

## Level 2: Skill and Knowledge

To earn the Level 2 Skill and Knowledge recognition, Cub Scouts must complete the Level 1 Participation and Knowledge requirements, and do the following:

- Tigers must complete S1–S3 from the Tiger column.
- Wolves and Bears must complete S1–S4 from the Wolf/Bear column.
- Webelos and Arrow of Light Scouts must complete S1–S4 from the Webelos/Arrow of Light column.

	Tiger	Wolf/Bear	Webelos/Arrow of Light
S1	Demonstrate one of the positions associated with shooting BB guns.	Demonstrate one of the positions associated with shooting BB guns.	Demonstrate the prone, bench, and sitting positions associated with shooting BB guns.
S2	On an approved range, fire five BBs at the "TIGER" target. Score your target; then repeat and do your best to improve your score. (Fire a total of 10 BBs.)	On an approved range, fire five BBs at the "CUB SCOUT" target. Score your target; then repeat twice and do your best to improve your score each time. (Fire a total of 15 BBs.)	On an approved range, fire five BBs at the "WEBELOS/AOL" target. Score your target; then repeat three times and do your best to improve your score. (Fire a total of 20 BBs.)
S3	Demonstrate proper range commands, and explain how and when to use them.	Demonstrate proper range commands, and explain how and when to use them.	Demonstrate proper range commands, and explain how and when to use them.
S4		Tell five facts about the history of BB guns.	Tell five facts about the history of BB guns.

## BB GUN LEVEL 2 REQUIREMENTS

### NOTES ON BB GUN LEVEL 2 REQUIREMENTS

#### Level 2, Requirement S1: Shooting Positions

Decide with input from your range master the best method and order for accomplishing this requirement.

#### Shooting Positions

Proper body position is essential to achieve a good shooting score. When learning any shooting position, these basic steps must be followed:

1. Study the position.
2. Practice the position without a gun. (Learn to put the feet, legs, body, head, and arms in the correct position without holding a gun.)
3. Practice the position with a gun.
4. Align the position properly with the target. Adjust the position so that the gun points naturally at the target.
5. Shoot from the position.



PRONE POSITION



SITTING POSITION



BENCHREST POSITION



FREE-ARM STANDING POSITION

## Level 2, Requirement S2

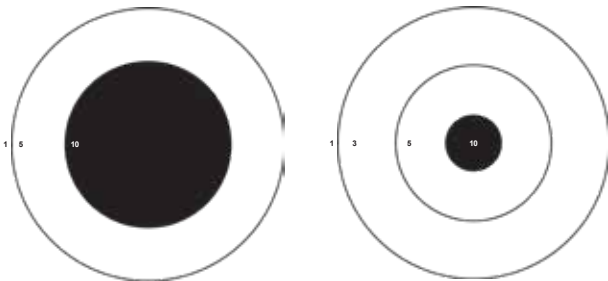
**Tiger:** On an approved range, fire five BBs at the “TIGER” target. Score your target; then repeat and do your best to improve your score. (Fire a total of 10 BBs.)

**Wolf/Bear:** On an approved range, fire five BBs at the “CUB SCOUT” target. Score your target; then repeat twice and do your best to improve your score each time. (Fire a total of 15 BBs.)

**Webelos/Arrow of Light:** On an approved range, fire five BBs at the “WEBELOS/AOL” target. Score your target; then repeat three times and do your best to improve your score. (Fire a total of 20 BBs.)

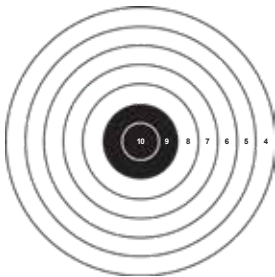
Leaders assisting with this requirement should keep in mind the Cub Scout motto, “Do Your Best,” at all times. The goal is for the Cub Scout to improve their technique and, as a result, improve their overall performance. There is NO specific score required for this requirement, only improvement. This may mean five misses the first time, and one hit on the target the second time. While it is clearly desired that the Scout would improve to the point of scoring an actual target, and while it would be good to work to that goal if time allows, the requirement only requires improvement.

Using the designated target for each Cub Scout rank allows Scouts of all ages the opportunity to reach an appropriate proficiency level. There are three targets for BB guns, as shown below.



**TIGER TARGET**

**WOLF/BEAR TARGET**



**WEBELOS/ARROW OF LIGHT TARGET**

These targets are included for reproduction purposes in the poster section of the appendix. Each Cub Scout should use the appropriate target for their rank. When reproducing the targets, choose a paper color that contrasts with the background coloring to make “hits” easier to spot.

## Level 2, Requirement S3

*Demonstrate proper range commands, and explain how and when to use them.*

Safety is critical at your event. The actual commands should be taught, and the Scouts should quiz each other until they acquire a thorough knowledge level. See the appendix for some common range commands, but confirm with your range master the actual commands and their meanings on your range.

### SUGGESTED BB GUN RANGE COMMANDS

<b>LOAD</b>	<b>Load your BB gun.</b>
<b>READY ON THE FIRING LINE</b>	<b>All shooters are ready.</b>
<b>COMMENCE FIRING</b>	<b>You may fire your BB gun.</b>
<b>CEASE FIRING</b>	<b>Stop shooting.</b>
<b>CLEAR ALL GUNS</b>	<b>Show your BB gun is empty. Lay it down.</b>

## Level 2, Requirement S4

*Tell five facts about the history of BB guns.*

Using the material in this guide or another source, help the Cub Scouts learn about BB guns and their history.

### A Brief History of BB Guns

In ancient history, blowguns began to appear in many different parts of the world. Although crude, these primitive weapons were very accurate. They were made from bamboo or other hollowed-out woods. A blowgun is a tube into which a hunter blows to shoot a projectile out the other end. This idea was transferred into gun form sometime in the 1500s. The bellows gun, invented around 1580, is the earliest known air-powered gun.

A few decades later, the first pneumatic (pump-up) air gun was created in France for King Henry IV. The nobility usually owned these early guns, since they were too expensive for commoners.

In the late 1700s, some units of the Austrian army were equipped with air rifles.

In America, records show that in the 1800s, Lewis and Clark had an air gun for hunting and for impressing the American Indians. The American Indians called it “the smokeless thunder stick.”

In 1885, in the United States, the Markham Air Rifle Company became one of the first companies to sell BB guns. These pneumatic rifles eliminated bullets and

used a small pellet the size of a ball bearing, soon to be called a “BB.”

A few years later, a company that sold steel windmills decided to also sell BB rifles. By 1895, this company had stopped producing windmills and made air rifles full-time and changed the company name to Daisy.

Daisy’s guns were mostly made of steel, which improved the gun’s strength and design. The Daisy air rifle became popular very quickly, and within five years Daisy had sold 250,000 BB guns. Soon, Daisy bought out all of its competition.

Daisy also promoted to youth by making special BB guns associated with popular historical characters like Davy Crockett.

In 1984, the Olympic Games featured air guns for the first time.

Today, BB guns are still being produced in both rifle and pistol forms and are very popular among all age groups.

## ARCHERY LEVEL 1 REQUIREMENTS

<b>Level 1: Participation and Knowledge (ALL RANKS)</b>
1. Demonstrate how to follow archery range safety rules and whistle commands.
2. Identify and name a recurve bow and/or compound bow.
3. Explain and demonstrate how to apply and use arm guards, finger tabs, and quivers.
4. On an approved range, demonstrate how to safely and effectively shoot a bow and arrow, including how to establish a correct stance, nock the arrow, hook and grip the bow, raise the bow, draw, anchor, hold, aim, and release/follow through.
5. On an approved range, demonstrate how to safely retrieve arrows after the range is clear and the command to retrieve arrows has been provided.

## NOTES ON ARCHERY LEVEL 1, REQUIREMENT 1

This requirement may be taught in advance of the shooting experience at a pre-event meeting or additional program station in a camp setting. **Be sure to use the actual rules and commands or whistle codes your range will use!**

## Archery Range Rules and Commands

### ARCHERY RANGE RULES

1. Always walk on the range
2. Keep your arrows in your quiver until you are told to shoot.
3. Only release the bow string when an arrow is nocked and safely pointed toward the target.
4. Leave dropped arrows on the ground until instructed to retrieve them.

**If there is an emergency on the range, immediately tell the instructor.**

### KNOW THE PROPER WHISTLE CODES

**TWO BLASTS** = Move up to the line.

**ONE BLAST** = Fire the proper number of arrows.

**THREE BLASTS** = Cease firing. Move to the target. Retrieve and score arrows.

**FIVE OR MORE WHISTLE BLASTS** = Cease firing. Stay where you are. This is an EMERGENCY. Officials will tell the archers what action to take either verbally or by the whistle code.

Remember there is only ONE command to shoot — ONE blast of the whistle.

For any command of more than one blast, STOP shooting. Watch and listen for further instructions.

(From USAA Archery Certification Course — Level 1 manual. Used with permission.)

### Level 1, Requirement 1:

*Demonstrate how to follow archery range safety rules and whistle commands.*

Lions or Tigers with their adult partners, and Wolf, Bear, and Webelos Scouts should learn these simple safety rules. When training youth to shoot, be sure to have proper equipment, secure and safe ranges, and clear safety instruction.

### Safety Rules for Archers

1. Observe all state and local laws on using a bow and arrow.
2. Shoot only with proper range supervision.
3. Always check your equipment before shooting. Break and discard all cracked or fractured arrows.
4. Be sure to include all of the safety guidelines and the proper whistle codes.
5. Bows and arrows should be used only in places set aside for their use.

6. Always keep your arrows pointed down or toward the target.
7. Only release an arrow when you can see its full clear path to the target.
8. Shoot only at the target in front of you.
9. Keep the arrows in the quiver until everyone is on or behind the shooting line and the range master has indicated that you may begin shooting.
10. Archers stand with both feet behind the line.
11. Stop shooting immediately upon signal from the range master or if anyone crosses in front of the shooting line or in front of or behind the targets.
12. Use only arrows that have been measured for your proper draw length. Arrows that are too short may cause personal injury or damage to the bow and arrow.
13. Always wear an arm guard and finger tab or glove.
14. Always practice courtesy and good sportsmanship.
15. Always walk, never run, when on the archery range or while carrying arrows.
16. On a target range, leave the bow standing against the target face while you are looking for lost arrows.
17. Stay on marked paths. Travel the direction in which the targets are marked.

### Safety Rules for Rangemasters

1. **Know** where arrows will go if the target is missed and to ensure a safety zone is in place.
2. **Lock, secure, and affix signs** to all access gates and entranceways downrange of the shooting line to inform people of the activity.
3. **Communicate** with range officers and other camp personnel regarding when and where archery activities will take place.
4. **Avoid shooting into the sun.**
5. **Know how many arrows the archers have** before shooting to be sure they are all retrieved.
6. **Clear the range** of any potential tripping hazards.

*(From USAA Archery Certification Course – Level 1 manual. Used with permission.)*

### Level 1, Requirement 2:

Identify and name a recurve bow and/or compound bow.

The two bows most commonly used by Cub Scouts are

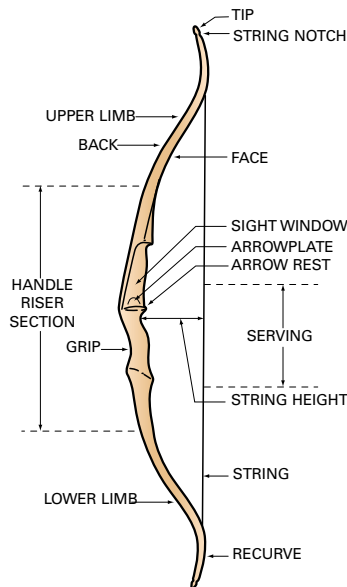
- **Recurve:** Recurve bows are the traditional bow for learners. It allows the archer to better learn proper finger tension. Modern recurve bows are either made

entirely of fiberglass, or are a composite of wood and fiberglass. Both options are satisfactory for beginning instruction.

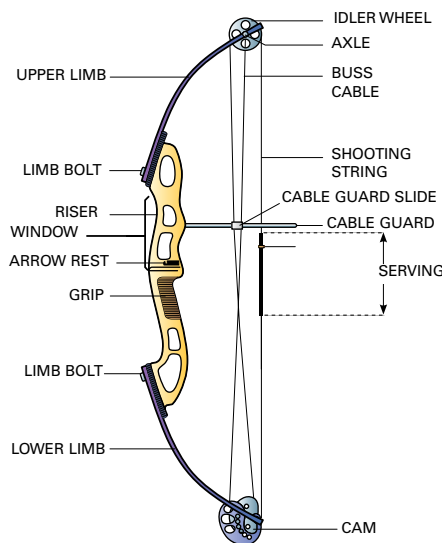
- **Compound:** Compound bows are generally harder to master, but they will produce more consistent results. The pulley system provides a mechanical advantage to assist where strength or stamina is an issue.

### Types of Archery Bows

#### RECURVE BOW



#### COMPOUND BOW



**All archers should be able to identify a recurve bow and compound bow. If your range uses only one type, obtain an example of the other for identification purposes to meet the requirement.**

### Level 1, Requirement 3:

*Explain and demonstrate how to apply and use arm guards, finger tabs, and quivers.*

Use the safety equipment available at your range, and demonstrate how to wear and adjust it properly. This should include arm guards, finger tabs, arrows, and quivers. Depending on the size of your shooters, you may need to adjust which equipment can be used safely. Be sure to cover loose and oversized shirts, jackets, or other items that may constitute a hazard when shooting arrows.



#### Arm Guards

An arm guard is a piece of stiff material, usually leather or nylon, that attaches to the inside of the forearm of the archer's bow arm to protect it from the bowstring upon release. It also holds down jacket and shirt sleeves so they don't interfere with the bowstring's travel. The larger part goes toward the elbow. A right-handed archer should wear the guard on the left arm, a left-handed archer on the right arm.

**Every shooter must use an arm guard and finger protector.**

#### Care of Arm Guards

Arm guards should have laces or elastic replaced when needed. Arm guards should be kept in labeled boxes. All leather goods will last longer if stored in a cool, dry place and occasionally cleaned with saddle soap.

#### Finger Tabs

Finger tabs are preferable to gloves for group instruction because they present fewer fitting problems. Made of smooth leather, finger tabs absorb the friction of the bowstring across the fingertips. Without them, painful blisters can develop. Many designs are available, but for beginners the simplest and most inexpensive type is satisfactory.

#### Quivers

For the young beginner, having a quiver to use when returning arrows from the target to the shooting line will improve safety procedures.

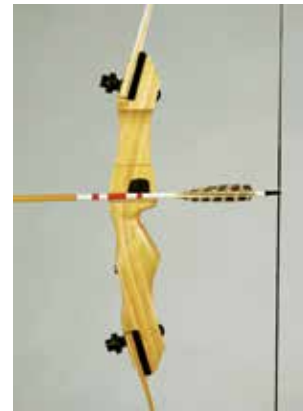
### Level 1, Requirement 4:

*On an approved range, demonstrate how to safely and effectively shoot a bow and arrow, including how to establish a correct stance, nock the arrow, hook and grip the bow, raise the bow, draw, anchor, hold, aim, and release/follow through.*

#### Step 1: STANCE

Stance is the correct foot position of the archer. The goal is to provide a solid foundation for the shot. An archer is most stable in an open stance.

1. Stand with both feet behind the shooting line.
2. Feet should be shoulder-width apart.
3. Move the foot closest to the target back about 3 inches.
4. Turn the toes of both feet toward the target about 30 degrees.



#### Step 2: Nock the Arrow

To nock an arrow is to securely place the arrow onto a bowstring. When the arrow is securely placed on the bowstring, the archer feels and/or hears the arrow "snap" into place.

1. Grasp the arrow below the nock.
2. Bring the arrow up and over the bow and place it on the arrow rest.
3. Spin the arrow so the index vane (usually a different color) points away from the riser and toward the archer's body.
4. Push the nock into place on the bowstring directly below the nocking point.

#### Step 3: Hook and Grip

Archers touch the bow in only two places: the bowstring where they "hook" it, and at the grip where they "grip" it. *Hook* is when an archer curls three fingers around the bowstring directly beneath the arrow. The grip on a bow is where the archer places his or her hand on the bow.



1. Curl the bowstring with the fingertips of the index, middle, and ring fingers under the arrow.
2. Pull the bowstring back enough to apply a small amount of tension.
3. Center the meaty part of the thumb on the back of the bow grip.
4. Point the thumb toward the target and angle your knuckles 45 degrees. Check to be sure the grip is relaxed.

#### Step 4: Raise the Bow

This step gives the archer the opportunity to confirm that all previous steps have been completed before proceeding. Once that is done, do the following:

1. Turn the head toward the target.
2. Rotate the elbow of the bow arm away from the bowstring.
3. Lift both arms to shoulder height.
4. Extend the bow arm fully, keeping the bow vertical.

The archer raises the bow in preparation for drawing back the bowstring. This gives the archer a sense of direction by knowing where the bow is in relation to the target. While raising the bow, it is important to keep the rest of the body still.

#### Step 5: Draw

Pull the bowstring back toward the face. The draw should be seamless and smooth.

#### Step 6: Anchor

The archer should pull the bowstring back to a consistent anchor point every time to maintain accuracy. For beginning archers, the corner of the mouth is the preferred anchor point.

1. Settle the index finger of the draw hand into the corner of the mouth.
2. Keep the draw hand relaxed and up against the face.

#### Step 7: Hold

Move the draw arm elbow slightly behind the arrow to brace the draw weight of the bow. The tension of holding the bow is now transferred from the shoulder and arm muscles to the back muscles.



#### Step 8: Aim

Aim is lining up the arrow to the target. Simply put, the arrow will go where it is pointed. The goal is to focus equally on the target and the arrow point.

1. Place the point of the arrow on the intended target area.
2. The eye focus is equally on the arrow point and the target.

#### Step 9: Release/Follow-Through

Release occurs when the archer relaxes the tips of the fingers that are hooking the bowstring, allowing the bowstring to push the fingers out of the way. Follow-through is the finish position.

1. Relax the fingertips to allow the bowstring to push the fingers out of the way.
2. Keep the bow arm up.
3. Finish the shot by allowing the draw hand to fall between the ear and the shoulder.

**Refer to the Archery Shooting Form poster, found on page XX of the appendix.**

#### Level 1, Requirement 5:

*On an approved range, demonstrate how to safely retrieve arrows after the range is clear and the command to retrieve arrows has been provided.*





## Retrieve Arrows

After all archers have shot their allotment of arrows (usually around six, if time permits), demonstrate and explain the proper methods to retrieve arrows from the target and ground.

First, before any archer goes to retrieve any arrows, permission must be granted by the range officer. The range officer will observe the archers and indicate when all archers have completed shooting and it is safe to retrieve arrows.

1. Follow the proper commands to move to the target line. Archers should walk slowly to the target and watch for arrows on the ground.
2. Remove arrows by standing to the side of the target and brace it with the side of the body. Place one hand on the target at the base of the arrow.
3. Grasp the arrow near the target and pull firmly and slowly straight back toward the shooting line.
4. Place the arrow on the ground.
5. Remove any others and place them on the ground.
6. After all the arrows have been removed, pick up the arrows from the ground. Cover the points with one hand and grasp the arrows near the fletching with the other hand. An arrow buried under the grass should be withdrawn point first and be completely clear of the grass before the arrow is lifted.
7. Walk back to the shooting line and place the arrows into the ground quiver.
8. Move off the range, or prepare to resume shooting, as commanded.

## ARCHERY LEVEL 2 REQUIREMENTS

### Level 2: Skill and Knowledge

To earn the Level 2 Skill and Knowledge recognition, all Cub Scouts must complete the Level 1 Participation and Knowledge requirements, and do the following:

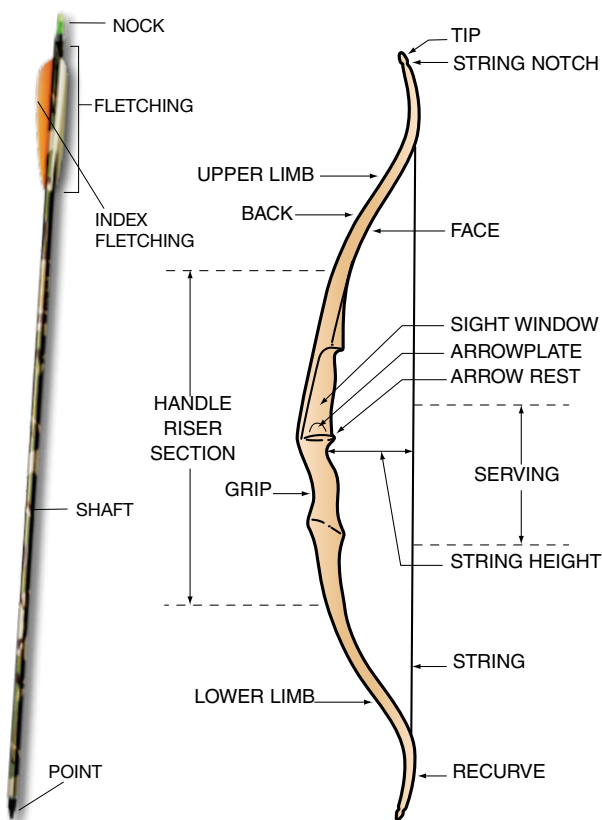
- Lions must complete S2–S3 from the Lion column.
- Tigers must complete S1–S3 from the Tiger column.
- Wolves must complete S1–S4 from the Wolf column.
- Bears must complete S1–S4 from the Bear column.
- Webelos and Arrow of Light Scouts must complete S1–S4 from the Webelos/Arrow of Light column.

	Lion	Tiger	Wolf	Bear	Webelos/Arrow of Light
S1		Identify three parts of the arrow and three major parts of the bow you will be shooting.	Identify three parts of the arrow and four major parts of the bow you will be shooting.	Identify four parts of the arrow and five major parts of the bow you will be shooting.	Identify five parts of the arrow and six major parts of the bow you will be shooting.
S2	Shoot at least two arrows at a target on an approved range; repeat and do your best to improve your score. (Shoot at least four arrows.)	Shoot three arrows at a target on an approved range; then repeat and do your best to improve your score. (Shoot a total of six arrows.)	Shoot five arrows at a target on an approved range; then repeat and do your best to improve your score. (Shoot a total of 10 arrows.)	Shoot five arrows at a target on an approved range; then repeat twice and do your best to improve your score each time. (Shoot a total of 15 arrows.)	Shoot five arrows at a target on an approved range; then repeat three times and do your best to improve your score each time. (Shoot a total of 20 arrows.)
S3	Demonstrate proper range commands, and explain how and when to use them.	Demonstrate proper range commands, and explain how and when to use them.	Demonstrate proper range commands, and explain how and when to use them.	Demonstrate proper range commands, and explain how and when to use them.	Demonstrate proper range commands, and explain how and when to use them.
S4			Tell five facts about archery in history or literature.	Tell five facts about archery in history or literature.	Tell five facts about archery in history or literature.

## NOTES ON ARCHERY LEVEL 2 REQUIREMENTS

### Level 2, Requirement S1: Parts of the Bow and Arrow

Review the parts of a bow and arrow with Cub Scouts. Determine that each Cub Scout has identified the number of parts needed to meet the requirement for his or her rank.



**Arrow:** A shaft made of carbon, aluminum, wood, fiberglass, or composite materials with a point on one end and a nock on the other end. Fletching, which can be either feathers or plastic vanes, are located on the arrow near the nock end

**Field point:** Similar to a target point and has a distinct shoulder, so that missed outdoor shots are easier to remove from obstacles such as tree stumps

**Fletching:** The stabilizing feathers or vanes of an arrow

**Index fletch or vane:** A different-colored fletch or vane used to indicate proper arrow positioning in relation to the bowstring or bow

**Nock:** The plastic attachment or grooved notch at the end of an arrow used to attach the arrow to the bowstring

**Shaft:** The main structural element of an arrow

**Target Point:** Attaches to the front end of an arrow and penetrates the target

### Level 2, Requirement S2

**Lion:** Shoot at least two arrows at a target on an approved range; repeat and do your best to improve your score. (Shoot at least four arrows.)

**Tiger:** Shoot three arrows at a target on an approved range; then repeat and do your best to improve your score. (Shoot a total of six arrows.)

**Wolf:** Shoot five arrows at a target on an approved range; then repeat and do your best to improve your score. (Shoot a total of 10 arrows.)

**Bear:** Shoot five arrows at a target on an approved range; then repeat twice and do your best to improve your score each time. (Shoot a total of 15 arrows.)

**Webelos/Arrow of Light:** Shoot five arrows at a target on an approved range; then repeat three times and do your best to improve your score each time. (Shoot a total of 20 arrows.)

Leaders assisting with this requirement should keep in mind the Cub Scout motto, “Do Your Best,” at all times. The goal is for the Cub Scout to improve his or her technique and, as a result, improve their overall performance. There is NO specific score required for this requirement, only improvement. This may mean five misses the first time, and one hit on a hay bale the second time. While it is clearly desired that the Cub Scout would improve to the point of scoring an actual target and, if there is adequate time, it would be good to work to that goal, the requirement only requires improvement.

**Cub Scout-level target scoring should be kept simple. For Tigers, it may be just hitting the hay bale or a large piece of paper on the bale. As the archers progress in skill, move to more structured scoring methods.**

### Level 2, Requirement S3

*Demonstrate proper range commands, and explain how and when to use them.*

This requirement is to be completed once for the level 1 award, and again for the level 2 award, according to the commands and rules practiced on your approved range.

With assistance from your Rangemaster, determine which range commands will be used. This may mean special archery whistle codes, or just a version of the BB gun range commands, depending on your location. This requirement could be partially accomplished off the firing line for instruction and then demonstrated on the firing line.

### Level 2, Requirement S4

*Tell five facts about archery in history or literature.*

Using the material in this guide or another source, help the Cub Scouts learn about archery in history or literature.

## A Brief History of Archery

The advancement of civilization was enhanced by the use and discovery of bows and arrows. The bow and arrow provided a much safer way to hunt and made life easier.

Generally it is thought the spear was the predecessor to the bow. Spearheads have been discovered from many thousands of years ago.

A recognizable bow was discovered dating back to 6000 B.C. that was made from yew or elm.

Egyptians, sometime around 3500 B.C. to 2800 B.C., were the first to use the bow in battle, which gave them superiority over their enemies. This bow was known as a composite bow.

Around 1500 B.C., Assyrians developed a shorter recurve bow that provided more power and easier handling. Crossbows were also used in ancient China, but not until many years later.

Around 1200 B.C., a famous Egyptian pharaoh named Ramses II gave archery another boost by putting archers on chariots. This mobility allowed the Egyptians to defeat the Hittite army.

Through the course of history, the wooden bow was made longer. The British were famous for improving on

the bow, which eventually became known as the British longbow. The most famous battle of the longbow was the battle of Crécy in 1346. In 1500, crossbows were banned in England to promote the use of the longbow. In 1595, the army was ordered to replace all bows with muskets. Still, archery has remained a popular sport in England.

Around 1000 A.D., bow and arrow technology swept the Americas. As seen through archeological studies, its use was adopted by most prehistoric Native Americans.

In 1879 the National Archery Association was founded. The first national tournament was held in White Stocking Park, Chicago, Illinois, that same year. The first archery club in the U.S., the United Bowmen of Philadelphia, was founded in 1928.

In 1900, archery became an Olympic sport, but it was dropped after 1920 because the rules could not be standardized. In 1931, the Fédération Internationale de Tir à l'Arc (FITA) was founded in Paris, and it standardized the rules for international competition. Archery returned to the Olympics in 1972 and is still part of the Olympic program. USA Archery is the sanctioning body in the United States for archery events.



## SLINGSHOT LEVEL 1 REQUIREMENTS

### Level 1: Participation and Knowledge (ALL RANKS)

1. On an approved range, demonstrate to qualified leadership good shooting techniques, including eye dominance, breathing, sight alignment, and follow-through.
2. On an approved range, explain the parts of a slingshot and demonstrate how to properly use them.
3. Explain the different types of ammunition that may be used with a slingshot and those that may not be used.
4. Explain the different types of targets that may be used with a slingshot and those that may not be used.

### NOTES ON SLINGSHOT LEVEL 1 REQUIREMENTS

The preferred slingshot for Cub Scouts has a wrist brace so the shooter's hand doesn't become weak from having to hold the frame tightly.

Using slingshots is an affordable, fun activity in council-sponsored camps. Youth love to shoot slingshots, and many have not had previous experience with them.

Although exciting and fun, slingshots are not toys. Scouts must understand that they must follow the rules when shooting slingshots or they will not be allowed to participate.

Shooting items from slingshots can be dangerous. For these activities, follow the same safety guidelines as used for BB shooting. Always shoot at a range such as an archery or BB gun range.

**CAUTION: Slingshot bands contain natural rubber latex. Those who are allergic to rubber latex should not use slingshots. Allergic reactions such as skin rashes, hives, or nasal, eye, or sinus symptoms may occur.**

**Slingshot ranges, equipment, and safe practices must follow the guidelines spelled out in the *National Shooting Sports Manual*. Generally, the same rules apply for this activity that would apply for BB gun shooting.**

#### Level 1, Requirement 1:

*On an approved range, demonstrate to qualified leadership good shooting techniques, including eye dominance, breathing, sight alignment, and follow-through.*

#### Good Shooting Techniques

(Instructions are for right-handed shooters. Reverse instructions for left-handed shooters where applicable.)

1. A Rangemaster must be present and there must be a one-to-one adult-to-Scout ratio.
2. Use a safe shooting range such as a BB gun range or archery range.
3. Wear protective eyeglasses or goggles.
4. Do not pick up a slingshot until told to do so.
5. Never shoot at anything if you cannot see what is behind it.
6. Do not use a slingshot with a power band damaged by age or weather.
7. Never shoot up into the air.
8. Never cross the firing line when shooting.
9. Point your left foot and shoulder directly at the target with the body turned to the right. Turn the head directly toward the target.
10. Center the ammo in the middle of the leather pouch. Hold the handle firmly in the left hand and pinch the ends of the leather pouch together with the thumb and index finger of the right hand, encompassing the ammo.
11. Hold the left arm out straight and firm. Draw the right hand back level with the right cheek — NEVER TO THE EYE — while holding the leather pouch securely between the thumb and index finger of the right hand.
12. Aim and release the leather ammo pouch to shoot.
13. Always practice courtesy and good sportsmanship!

#### Eye Dominance

Before shooting a slingshot, the participants should determine which eye is dominant. Just as people are either right- or left-handed, one eye is dominant over the other. Discovering which eye a shooter favors is important because it could determine on which side the slingshot is held.

To find which eye is dominant, have participants extend both arms in front of them and form a small triangle 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. (See page XXX in the appendix.)

#### Breathing

When shooting, stop breathing before firing a shot. Breathing causes the body to move and makes it difficult to maintain a steady sight picture. Before firing, relax and get comfortable. Then exhale and stop breathing. This technique will help shooters aim by reducing the body and slingshot movement in relation to the target. Do not stop breathing for longer than 8 to 10 seconds while aiming at the target. If you are not able to shoot within that time, stop, take a breath or two, and

repeat the process. The pouch of the slingshots should be pulled all the way back to your cheek and released as you breathe out.

### **Aiming: Sight Alignment**

To aim a slingshot, hold it horizontally and aim with the upper fork end. To shoot correctly, the ammo will need to be centered inside the slingshot pouch. You will also need to make sure that the slingshot handle is parallel to the ground and that the fork is 90 degrees to the upright position.

### **Follow-Through**

The shooter must also master proper follow-through. Follow-through means continuing to do everything that was being done at the time the shot was fired. In other words, maintaining aim until the ammunition shot from the pouch of the slingshot hits the target. The idea is to prevent any unnecessary movement before the projectile leaves the pouch.

**See the Slingshot Range Rules poster on page 238 of the appendix.**

### **Level 1, Requirement 2:**

On an approved range, explain the parts of a slingshot and demonstrate how to properly use them.

#### **Slingshot Parts**

**Hand grip and forks.** These form the basic slingshot design. The hand grip can be customized as needed. The forks are made of sturdy metal or other material which will not bend.

**Wrist brace.** The wrist brace attaches to the basic slingshot and is used to stabilize the shooting platform and provide more leverage for the shooter to apply power.

**Bands.** Bands are usually made of latex surgical tubing, which stretches to propel ammunition.

**Pouch.** The pouch holds ammunition, usually made of leather or other sturdy material.

### **Level 1, Requirement 3:**

*Explain the different types of ammunition that may be used with a slingshot and those that may not be used.*

Items shot from slingshots are considered ammunition. Generally people use small rocks or pebbles; however, this is not appropriate for Cub Scouts. Instead, use softer ammunition such as pinto beans or dog food. Ammunition such as ball bearings may not be used.

### **Level 1, Requirement 4:**

*Explain the different types of targets that may be used with a slingshot and those that may not be used.*

#### **Targets**

Targets for slingshots can be made from a variety of materials, including paper, cans, plastic bottles, and balloons. Paper targets can be homemade 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. Remember to recycle when finished.

You can also practice using a slingshot on a bull's-eye target about 2 inches in diameter and with the target 10 feet away; then move the target out to 25 feet.



## SLINGSHOT LEVEL 2 REQUIREMENTS

### Level 2: Skill and Knowledge

To earn the Level 2 Skill and Knowledge recognition, all Cub Scouts must complete the Level 1 Participation and Knowledge requirements, and do the following:

- Lions must complete S1–S2 from the Lion column.
- Tigers must complete S1–S3 from the Tiger column.
- Wolves must complete S1–S3 from the Wolf column.
- Bears must complete S1–S3 from the Bear column.
- Webelos and Arrow of Light Scouts must complete S1–S3 from the Webelos/Arrow of Light column.

	Lion	Tiger	Wolf	Bear	Webelos/Arrow of Light
S1	On an approved range, shoot two shots at a target; then repeat and do your best to improve your score. (Shoot a total of four shots.)	On an approved range, shoot three shots at a target; then repeat and do your best to improve your score. (Shoot a total of six shots.)	On an approved range, shoot five shots at a target; then repeat and do your best to improve your score. (Shoot a total of 10 shots.)	On an approved range, shoot five shots at a target; then repeat twice and do your best to improve your score each time. (Shoot a total of 15 shots.)	On an approved range, shoot five shots at a target; then repeat three times and do your best to improve your score each time. (Shoot a total of 20 shots.)
S2	Demonstrate proper range commands and explain how and when to use them.	Demonstrate proper range commands and explain how and when to use them.	Demonstrate proper range commands and explain how and when to use them.	Demonstrate proper range commands and explain how and when to use them.	Demonstrate proper range commands and explain how and when to use them.
S3		On an approved range, try shooting with your non-dominant hand.	On an approved range, try shooting with your non-dominant hand.	On an approved range, try shooting with your non-dominant hand.	On an approved range, try shooting with your non-dominant hand.

### NOTES ON SLINGSHOT LEVEL 2 REQUIREMENTS

#### Level 2, Requirement S1

**Lion:** *On an approved range, shoot two shots at a target; then repeat and do your best to improve your score. (Shoot a total of four shots.)*

**Tiger:** *On an approved range, shoot three shots at a target; then repeat and do your best to improve your score. (Shoot a total of six shots.)*

**Wolf:** *On an approved range, shoot five shots at a target; then repeat and do your best to improve your score. (Shoot a total of 10 shots.)*

**Bear:** *On an approved range, shoot five shots at a target; then repeat twice and do your best to improve your score each time. (Shoot a total of 15 shots.)*

**Webelos/Arrow of Light:** *On an approved range, shoot five shots at a target; then repeat three times and do your best to improve your score each time. (Shoot a total of 20 shots.)*

Leaders assisting with this requirement should keep in mind the Cub Scout motto, “Do Your Best,” at all times. The goal is for the Cub Scout to improve their technique

and, as a result, improve their overall performance.

There is NO specific score required for this requirement, only improvement. This may mean five misses the first time, and one hit on a target the second time. While it is clearly desired that the Cub Scout would improve to the point of scoring an actual target and, if there is adequate time, it would be good to work to that goal, the requirement only requires improvement.



## Level 2, Requirement S2

*Demonstrate proper range commands and explain how and when to use them.*

Generally, these will be the same as BB gun range commands. Consult with your range master to determine existing range commands, or develop the actual commands used on the range.

### **GENERAL SLINGSHOT RANGE COMMANDS**

**LOAD** = Load your slingshot.

**READY ON THE FIRING LINE** = All participants are ready.

**COMMENCE FIRING** = You may fire your slingshot.

**CEASE FIRING** = Stop shooting

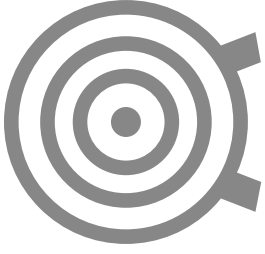
## Level 2, Requirement S3 (Tiger, Wolf, Bear, Webelos only)

*On an approved range, try shooting with your non-dominant hand.*

Firing a slingshot requires strength in the hand holding the grip and strength in the hand holding the pouch. Both hands play a role in proper aiming of the slingshot. You may find that switching hands helps with coordination or accuracy and may even help you determine which is your dominant eye. This requirement will be completed once an honest attempt has been made; there is no measurement for accuracy or scoring.

## APPENDIX 1: POSTERS

- 223 General Shooting Range Rules
- 224 Eye Dominance
- 225 BB Gun Sighting Chart
- 226 Parts of a BB Gun
- 227 If You Find a Gun
- 228 Suggested BB Gun Range Commands
- 229 Suggested BB Gun Safety Rules
- 230 BB Gun Shooting Positions
- 231 BB Gun Targets
- 234 Archery Range Rules and Commands
- 235 Archery Shooting Form
- 236 Types of Archery Bows
- 237 General Slingshot Range Commands
- 238 General Slingshot Range Rules
- 239 Slingshot Safety Rules
- 240 Parts of a Slingshot
- 241 Cub Scout Shooting Sports Tracking Template



# GENERAL SHOOTING RANGE RULES

1. This range may be opened only by a qualified BSA-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**

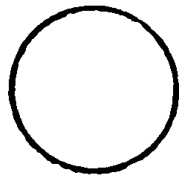
To find which eye is dominant, have participants extend both arms in front of them and form a small hole with their thumbs and index fingers. Instruct them to look at a distant object through the opening and then pull their hands back to their face. The eye that is in line with the object is dominant.

**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.**

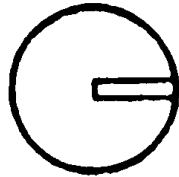




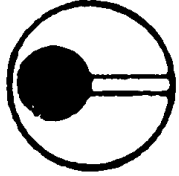
# BB GUN SIGHTING CHART



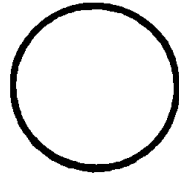
PEEP  
REAR SIGHT



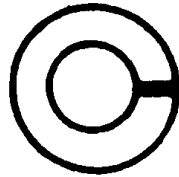
PROPER  
ALIGNMENT



PROPER SIGHT  
PICTURE



PEEP  
REAR SIGHT



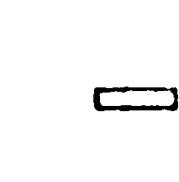
PROPER  
ALIGNMENT



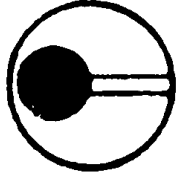
PROPER SIGHT  
PICTURE



POST  
FRONT SIGHT



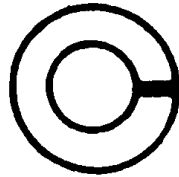
PROPER  
ALIGNMENT



PROPER SIGHT  
PICTURE



APERTURE  
FRONT SIGHT



PROPER  
ALIGNMENT



PROPER SIGHT  
PICTURE



OPEN  
REAR SIGHT



POST  
FRONT SIGHT



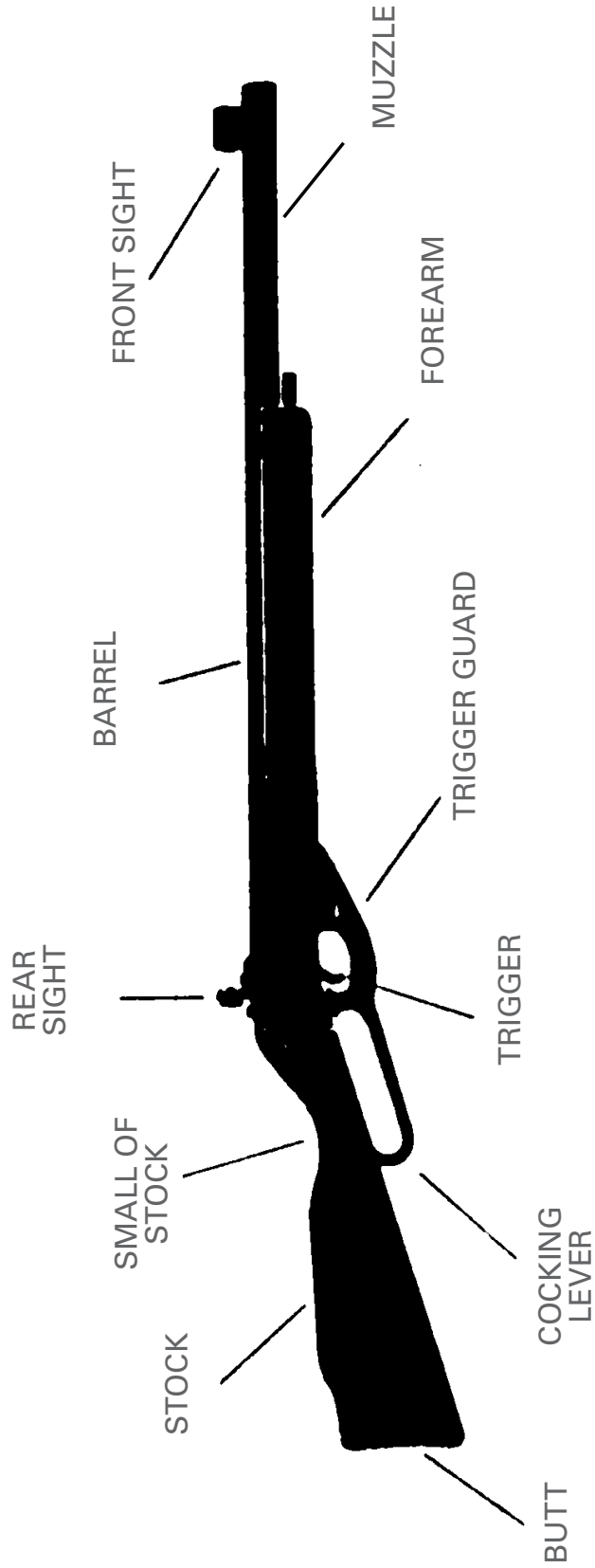
PROPER  
ALIGNMENT



PROPER SIGHT  
PICTURE

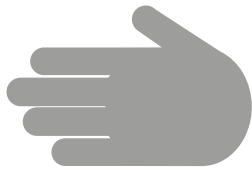


# PARTS OF A BB GUN





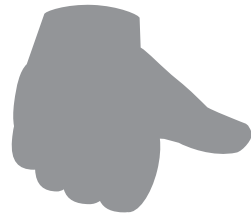
**IF YOU FIND A GUN**



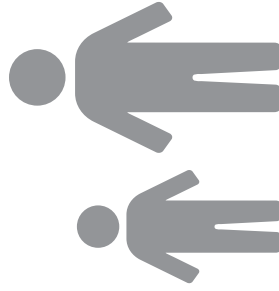
**STOP!**



**LEAVE THE AREA!**



**DON'T TOUCH!**



**TELL AN ADULT!**



# SUGGESTED BB GUN RANGE COMMANDS

---

<b>LOAD.</b>	<b>LOAD YOUR BB GUN.</b>
<b>READY ON THE FIRING LINE.</b>	<b>ALL SHOOTERS ARE READY.</b>
<b>COMMENCE FIRING.</b>	<b>YOU MAY FIRE YOUR BB GUN.</b>
<b>CEASE FIRING.</b>	<b>STOP SHOOTING.</b>
<b>CLEAR ALL GUNS.</b>	<b>SHOW YOUR BB GUN IS EMPTY. LAY IT DOWN.</b>



# SUGGESTED BB GUN SAFETY RULES

- 1. Always keep the gun pointed in a safe direction.**
- 2. Always keep your finger off the trigger until you are ready to shoot.**
- 3. Always keep the gun unloaded until ready to use.**
- 4. Know how to use a gun safely.**
- 5. Be sure the gun is safe to operate.**
- 6. Use only the correct ammunition for the gun.**



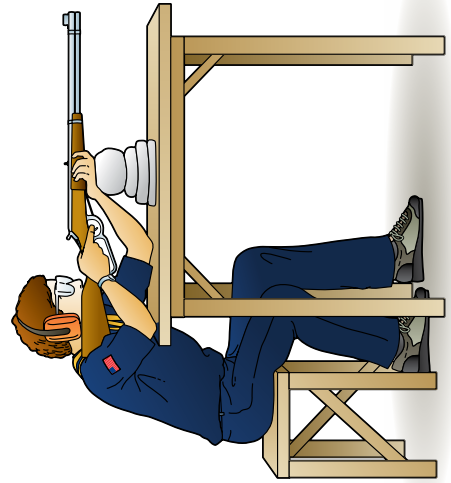
# BB GUN SHOOTING POSITIONS



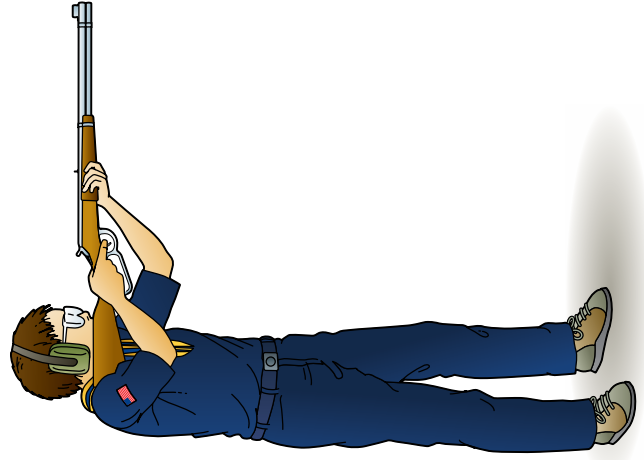
PRONE POSITION



SITTING POSITION

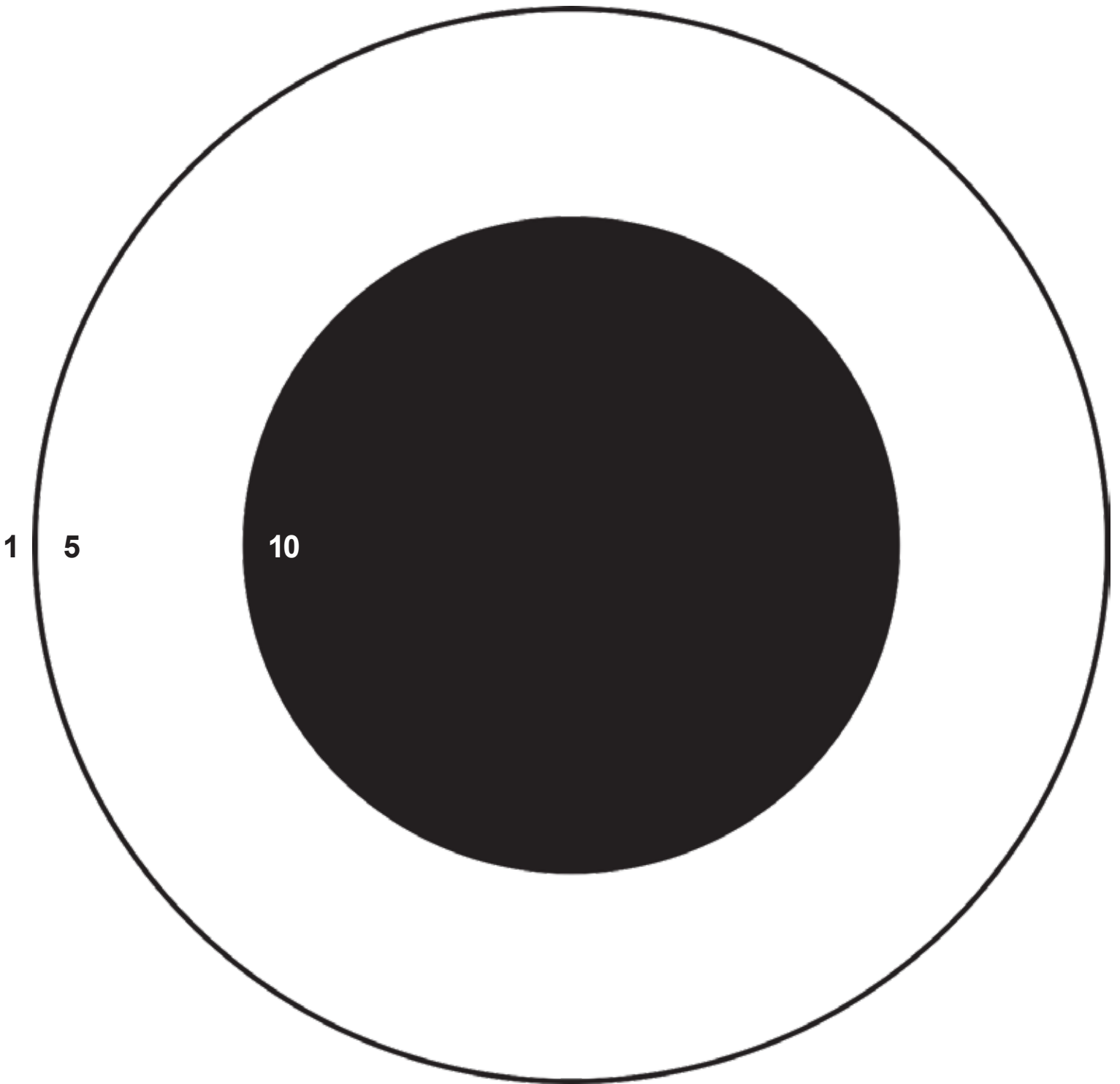


BENCHREST POSITION



FREE-ARM STANDING POSITION

# TIGER TARGET



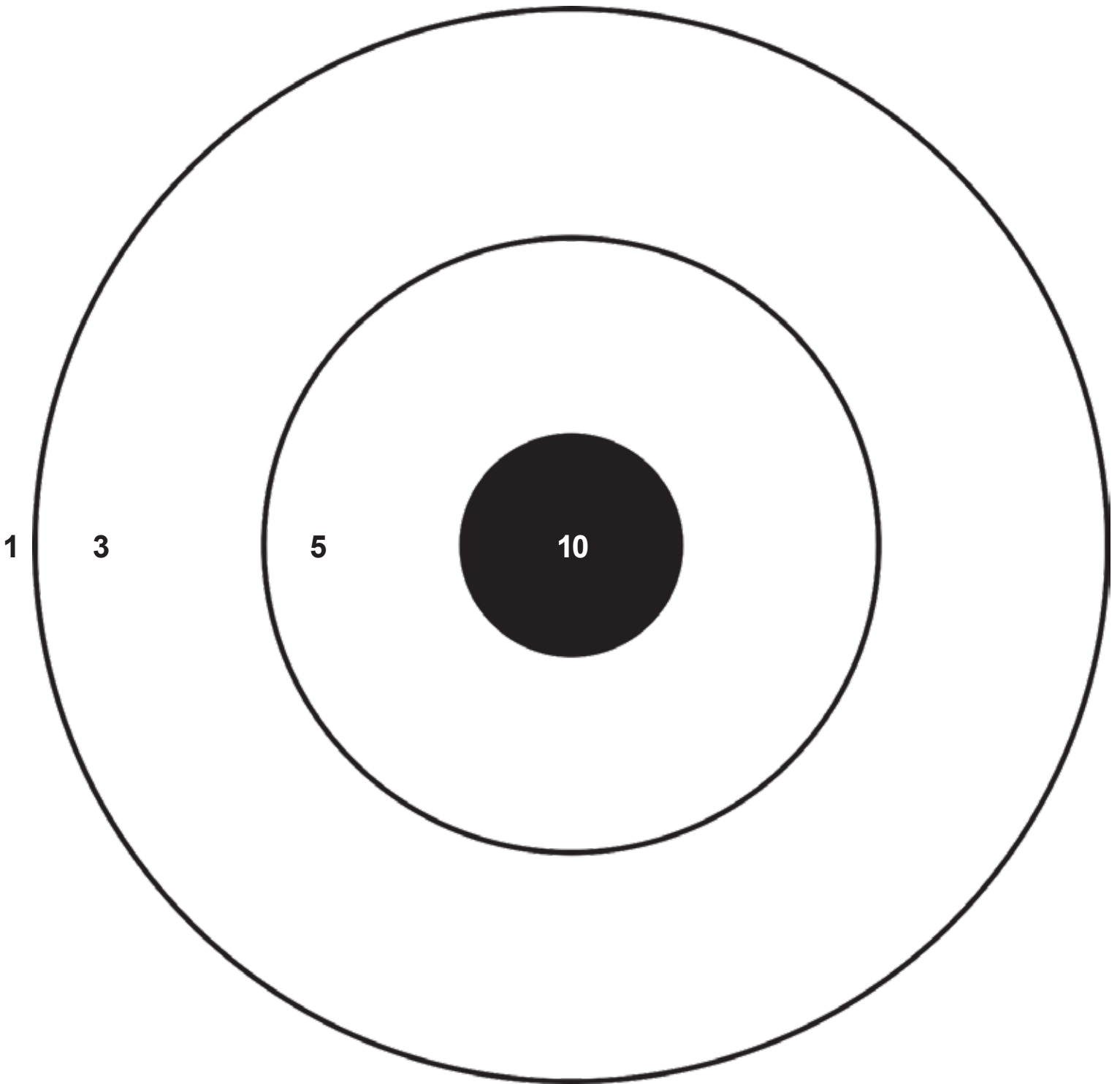
\_\_\_\_\_ Name

\_\_\_\_/\_\_\_\_/\_\_\_\_ Date

\_\_\_\_\_ Score



# WOLF/BEAR TARGET

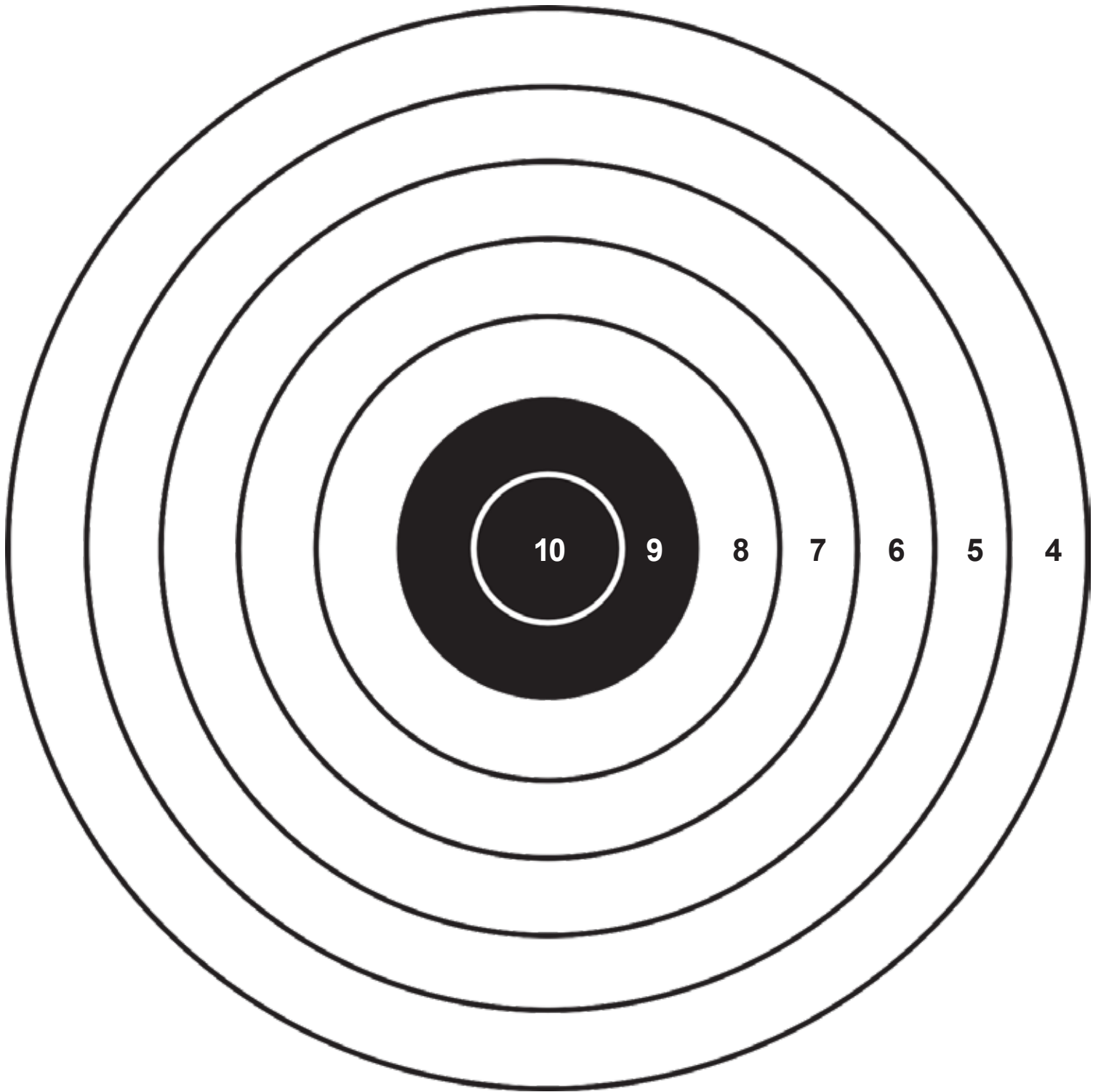


\_\_\_\_\_ Name

\_\_\_\_/\_\_\_\_/\_\_\_\_ Date

\_\_\_\_\_ Score

# WEBELOS/AOL TARGET



\_\_\_\_\_ Name

\_\_\_\_/\_\_\_\_/\_\_\_\_ Date

\_\_\_\_\_ Score

# ARCHERY RANGE RULES AND COMMANDS

## ARCHERY RANGE RULES

1. Always walk on the range.
2. Keep your arrows in your quiver until you are told to shoot.
3. Only release the bow string when an arrow is nocked and safely pointed toward the target.
4. Leave dropped arrows on the ground until instructed to retrieve them.

**If there is an emergency on the range, immediately tell the instructor.**

## KNOW THE PROPER WHISTLE CODES

**TWO BLASTS = Move up to the line.**

**ONE BLAST = Fire the proper number of arrows.**

**THREE BLASTS = Cease firing. Move to the target. Retrieve and score arrows.**

**FIVE OR MORE WHISTLE BLASTS = Cease firing. Stay where you are. This is an EMERGENCY. Officials will tell the archers what action to take either verbally or by the whistle code.**

**Remember there is only ONE command to shoot — ONE blast of the whistle.**

**For any command of more than one blast, STOP shooting. Watch and listen for further instructions.**



# ARCHERY SHOOTING FORM

(Right-handed archer. Reverse instructions for left-handed archer.)

## Square Stance

- Turn sideways to the target, with left shoulder toward the target.
- Distribute weight evenly on both feet, which are shoulder-width apart.

## Nock the Arrow

- Lay the shaft of the arrow on the arrow rest, and nock the arrow by fitting the notched end of the arrow just below the string's nocking point.
- Face the odd-colored feather (cock) away from the bow.
- Grasp the arrow by the nock between the thumb and index finger of the right hand.

## Draw

- Bring the left hand up, turning the hand so the bow assumes a vertical position at arm's length.
- With the three fingers of the right hand serving as hooks, start the draw slowly.
- The index finger will be above the arrow and the middle two fingers below it.
- At full draw, the right elbow is back and in direct line with the tip of the arrow.

## Anchor

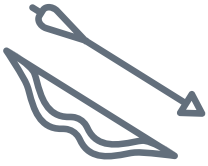
- At the completion of the draw, the relaxed thumb of the right hand finds an anchor spot under the jawbone.
- Using the jawbone as an anchor, the bowstring will touch the nose and the center of the chin.
- It is important that the anchor point be the same for every shot.

## Release or Loose

- The hand is opened with the fingers moving quickly and precisely off the nock and the string at the same time.
- Keep the left arm in the same position as for a full draw.
- Relax wrist.
- Keep alignment.
- Avoid tension.
- Keep the bow at the same level that it was at full draw.

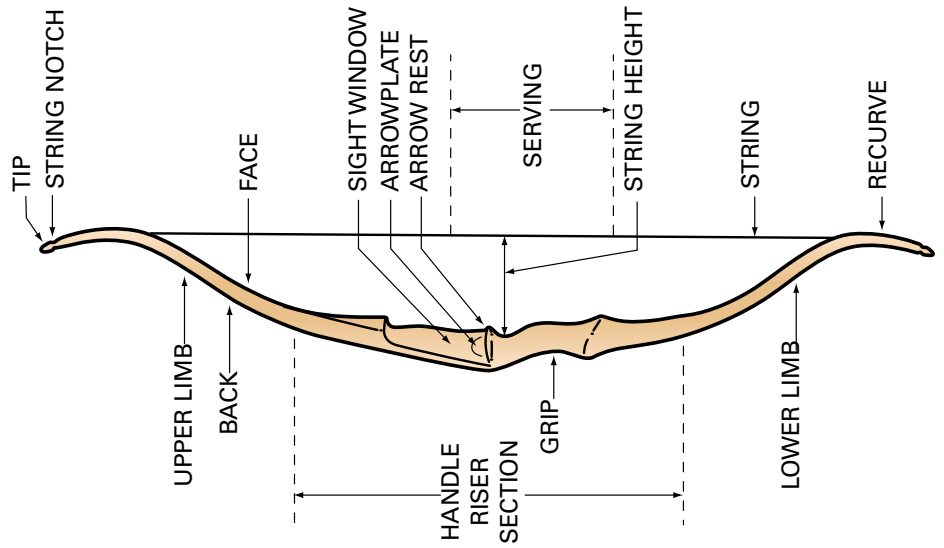
## Follow-Through

- Keep aiming until the arrow hits the target.
- After release, the fingers should not be more than an inch away from and behind the anchor point.
- Hold the position until the arrow strikes the target to make certain the whole process is smooth.
- In a good follow-through, your right hand will be at the back of your neck and your arm will be lined up perfectly.

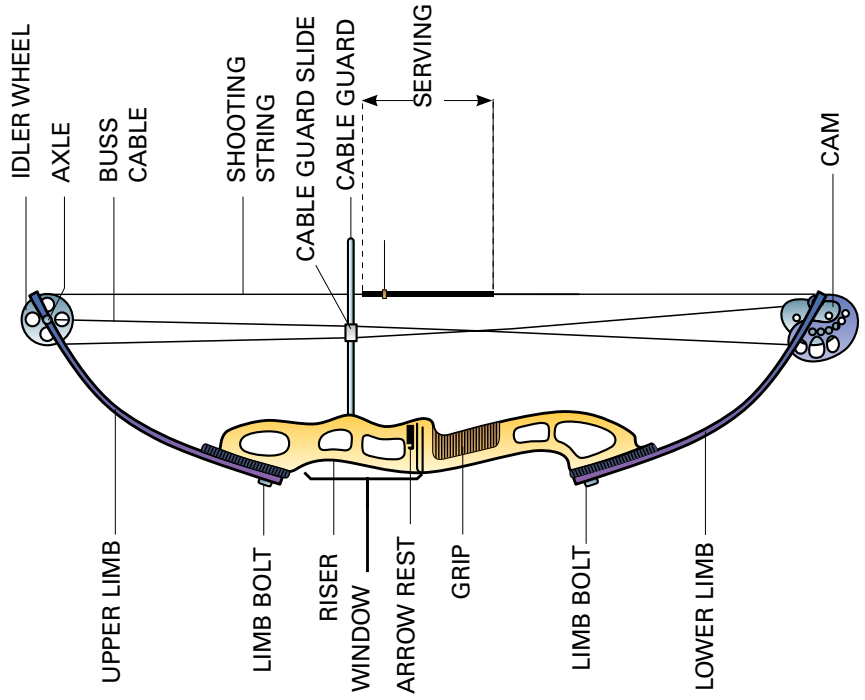


# TYPES OF ARCHERY BOWS

**RECURVE BOW**



**COMPOUND BOW**





# GENERAL SLINGSHOT RANGE COMMANDS

**LOAD.**

**READY ON THE FIRING LINE.**

**COMMENCE FIRING.**

**CEASE FIRING.**

**LOAD YOUR SLINGSHOT.**

**ALL SHOOTERS ARE READY.**

**YOU MAY FIRE YOUR SLINGSHOT.**

**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.

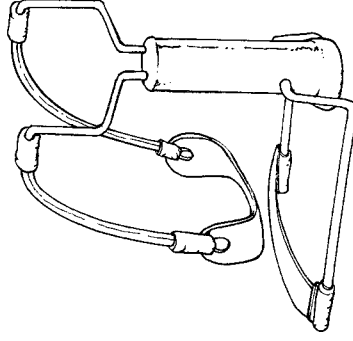


# SLINGSHOT SAFETY RULES

**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.**

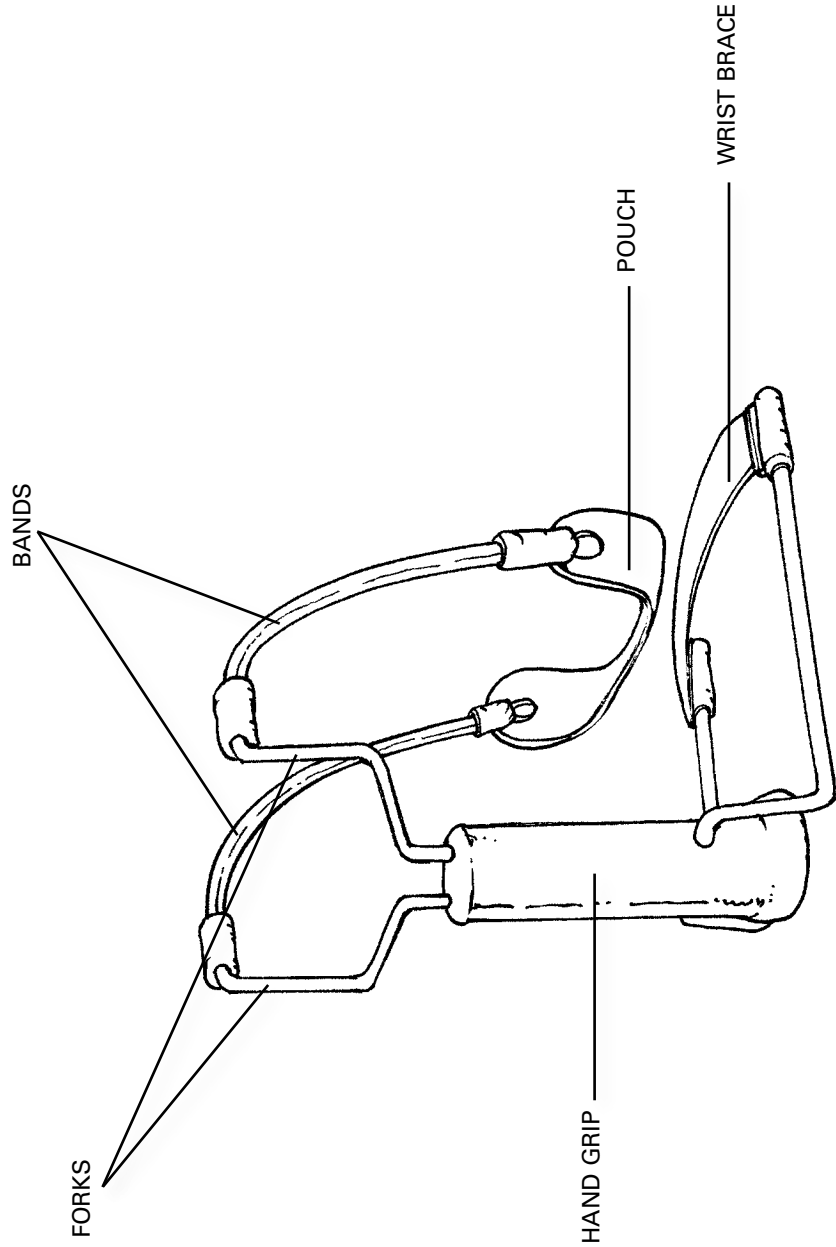
**ALWAYS KEEP THE POUCH AMMUNITION FREE UNTIL READY TO USE.**







# PARTS OF A SLINGSHOT



To Pack Advancement Team:

This is to inform you that **Cub Scout** \_\_\_\_\_

has completed the requirements for the Cub Scout Shooting Sports Award as noted below. Please award the patches and devices at your next opportunity.

Rangemaster, please initial the appropriate box(es) below indicating completion of the award.

	<b>BB GUN</b>	<b>ARCHERY</b>	<b>SLINGSHOT</b>
<b>LION</b>			
<b>TIGER</b>			
<b>WOLF</b>			
<b>BEAR</b>			
<b>WEBELOS/AOL</b>			

If all the requirements were not finished, please indicate below which ones were completed with your initials.

**BB GUN**

Level 1—1	
Level 1—2	
Level 1—3	
Level 1—4	
Level 2—S1	
Level 2—S2	
Level 2—S3	
Level 2—S4	

**ARCHERY**

Level 1—1	
Level 1—2	
Level 1—3	
Level 1—4	
Level 1—5	
Level 2—S1	
Level 2—S2	
Level 2—S3	
Level 2—S4	

**SLINGSHOT**

Level 1—1	
Level 1—2	
Level 1—3	
Level 1—4	
Level 2—S1	
Level 2—S2	
Level 2—S3	



## APPENDIX 2: ADDITIONAL ACTIVITIES

### Shooting Sports Program Ideas

Shooting sports 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 shooting sports 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 monster face attached or painted on a one-gallon plastic bottle, suspended with shock card within a tire. The object is to hit the plastic bottle. This event can be scored individually or by den or pack.

#### Spin the Insect

A picture of an insect is glued to a piece of plywood 12 inches square. The plywood is fastened so it will pivot freely around a centered bar set from post to post when struck with an arrow.

#### 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 *BSA National Shooting Sports 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 *BSA National Shooting Sports 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
- Cub Scout Shooting Sports Award certificates
- 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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### Photo and Illustration Credits

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