



## **Range Activities Safety Course**

### **Total time: 30 minutes**

#### **Description**

The purpose of Scouting America's range and target activities is first and foremost centered around teaching safety. Scouting America's range and target activities are developed and implemented through age-appropriate training and experiences.

SECTION V

## RANGE AND TARGET ACTIVITIES FOR CUB SCOUTS

Archery, BB gun, and sling shot shooting for all ranks of Cub Scouts are restricted to District or Council organized day camps, the Cub Scout range and target adventures long term camp, short term camp or to council activities held on or off an accredited camp property where the district or council provides currently trained Scouting America range and target activities Rangemasters and all standards for Scouting America range and target activities are enforced.

Archery, BB gun, and sling shot shooting in Cub Scouting 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.

Range and target activities related adventures 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 National Camping School certified Range Activities Directors with archery and/or NRA rifle certification or for NRA instructors or USA Archery instructors who will teach the skills of archery, BB gun or sling shot shooting to Lions (archery and sling shot only) and Tigers with their adult partners, Wolf Cub Scouts, Bear 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 range and target activities. 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 Scouting America.

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

The council's camping property usually is an ideal location for range and target activities areas. Here, safely designed areas may be established for the Cub Scout range and target activities program. Under qualified leadership, Lions and Tigers with their adult partners, Wolf Cub Scouts, Bear 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 range and target activities needs special attention by the camp director and their program director. Staff members must be certified per Scouting America qualifications for these activities and must be at least 18 years old with mature judgment and the ability to teach. In Cub 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 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 165.

### BB Gun Elective Adventures - Cub Scouts

BB gun programs are an exciting, worthwhile activity for Scouts, and it is one of the most popular program activities held at camps. The BB gun Cub Scout elective adventures provide fun and adventure, yet also teach skills, discipline, self-reliance, and sportsmanship. We will teach Tiger Cubs with their adult partners, Wolf Cub Scouts, Bear Cub Scouts, Webelos Scouts, and Arrow of Light 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.** All ranks of Cub Scouts are not permitted to use any type of handgun or any other type of firearm.

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

- The pellet rifle range meets or exceeds Scouting America and NRA recommendations and appropriate Outdoor Programs/Properties design standards. The range is on nationally authorized camp property’s range(s) or at a commercial firearm range. A commercial firearm range is a supervised facility that offers a controlled environment for safe firearm practice. It will provide shooting lanes, targets, and may offer equipment rentals and training in safe firearm handling and marksmanship. Standard operating procedures are required for each firearm type used on-site. Scouting’s range and target activities must follow all of Scouting’s range and target activities policies or range standard operating procedures that are equivalently stringent, including no variation from Scouting’s limitations on firearms used. These ranges may be operated by a licensed business, a government entity or non-profit.
- All pellet rifles are in good repair are provided. All pellet rifles used in Scouting’s range and target activities have a trigger pull in excess of 2.5 pounds and are tested with a 2.5-pound weight or scale at least once a week while in use. If any trigger mechanism fails, the pellet rifle is immediately removed from service. Documentation of the tests is maintained.
- All pellet rifles (CO2, pump, break barrel, etc.) are limited to single-shot designated for target shooting, velocity of 500 to 540 feet per second, and energy levels not to exceed 7.5 joules.

- Safe, separate and locked storage (can be the same building) is provided for pellet rifles, pellets, and CO2 cylinders and bulk tanks.
- Pellet rifle propellant is limited to CO2 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 Guns

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 Cub Scout elective adventures 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 range activities director or a National Rifle Association rifle instructor.

The BB gun rangemaster also must be registered with Scouting 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 Range Activities 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 range design guideline posted on [scouting.org/outdoorprograms](http://scouting.org/outdoorprograms), and have the participants walk through the process of running the range.

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

## 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.

To download lesson plans to instruct each rank of Cub Scouting BB gun elective adventures, visit [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms).

## 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 48
- B. Equipment, page 54

1. Review diagram of Spring-Piston Gun (*Ensure to cover stock, butt, trigger, trigger guard, forearm, muzzle, rear sight, and safety.*)
2. Targets (Available online at [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms))
3. Maintenance
  - The BB Gun must be unloaded when stored.
  - The safety mechanism must be engaged.
  - The BB Gun should be protected from scratches or scraps from other guns.
  - The BB Gun must be locked or otherwise secured in a safe, dry location, separate from ammunition.

## Section II

- A. BB Gun Shooting Basics, page 49
  - 1. Eye Dominance, page 49
  - 2. Shooting Shoulder, page 49
  - 3. Breathing, page 49
  - 4. Sight Alignment, page 50
  - 5. Trigger Squeeze, page 50
  - 6. Follow-Through, page 50
- B. BB Gun Shooting Practice Fun, page 52

## Section III (*optional activities*)

- A. Shooting Positions, page 50
  - 1. Free-Arm Standing Position, page 50
  - 2. Bench Rest Position, page 51
  - 3. Prone Position, page 51
  - 4. Sitting Position, page 51
- B. BB Gun Shooting Games and Activities, page 52
- C. Cub Scout BB Gun Elective Adventures  
(Visit [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms).)

### ***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 many 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 BB 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.

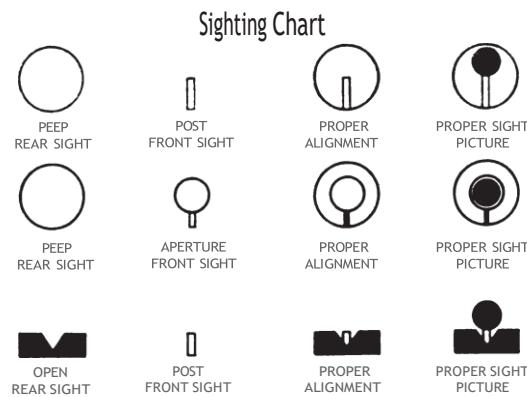
Assign youth, leaders, and parents in pairs to assist each other, then have them check with the rangemaster.

#### ***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.



## 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, Wolf Cub Scouts, Bear 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 Cub Scouts. 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 posted online at <https://www.scouting.org/outdoor-programs/properties/resources/design-guidelines/>. 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 Scouting America 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, and 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 their 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 Scouting America-certified range master.
2. All commands issued by the range master must be obeyed immediately.
3. Stay behind the firing line. Do not straddle the firing line.
4. Do not pick up a gun, bow, arrow, or slingshot unless told to by the range master.
5. Absolutely no running on the range.
6. No horseplay or unnecessary talking on the range.
7. If in doubt about the rules, ask your leader or range master for advice or help.

This poster can be found in the Appendix of this guide.

### Range Commands

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

Immediately, each shooter takes their assigned place at their 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 their arm and calls:

"NOT READY" and gives the number of their 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

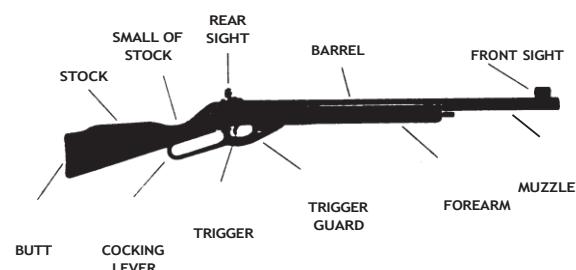
- Tarps to provide shade over the pads protecting the shooters and the guns
- BB dishes at each firing point
- Shooting mats at each firing point
- A desk with storage space for equipment for recording scores. It should be behind the ready line and near the bulletin board.
- Ample waste receptacles behind 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 Scouting America · National Range and Target Activities Manual

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 Scouts (except for Lion Scouts) can earn the BB gun elective adventure for their rank. Information on these electives can be found at [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms).**

### **How To Set Up Outdoor Target BB Gun Range**

Set up for wide-open, cleared space. Utilize the range design guideline for BB gun ranges #314. You can download the range design guidelines at <https://www.scouting.org/outdoor-programs/properties/resources/design-guidelines/>.

#### **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, or a ballistic cloth or double layer, heavy duty tarp capable of stopping a bb as a trap. If there is no berm, provide a minimum of 195 yards of open area behind the targets.
- 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 participants shoot can gather behind this line. This line needs to be placed far enough behind the Waiting Line to prevent distraction from the spectators (at minimum 15 feet)

#### **3. Set Up Targets**

- 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.

## 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, Wolf Cub Scouts, Bear Cub Scouts, and Webelos and Arrow of Light 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 Tirl'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 range activities 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 66.

### **Teaching Tips**

The coach-pupil method is effective for all types of skill training and is particularly effective in range and target activities. 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 Archery Elective Adventures  
(Visit [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms))

### **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, Wolf Cub Scouts, Bear Cub Scouts, Webelos Scouts, and Arrow of Light 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 Archery 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, Wolf Cub Scouts, Bear Cub Scouts, Webelos Scouts, and Arrow of Light 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 posted online at <https://www.scouting.org/outdoor-programs/properties/resources/design-guidelines>. 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 Scouting America 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, and 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

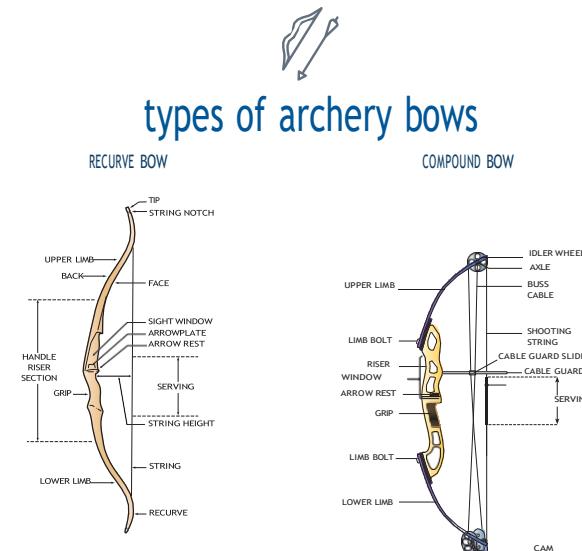
- 2 whistle blasts = Go to the line.
- 1 whistle blast = Shoot.
- 3 whistle blasts = Retrieve arrows.
- 5 or more whistle blasts = Emergency. Immediately stop shooting, return bows to the rack, and go behind the waiting line.

## 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 Appendix 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.

## Equipment

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

This poster can be found in the Appendix of this guide.

(From USA Archery Certification Course - Level 1 manual. Used with permission.)

### ***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.

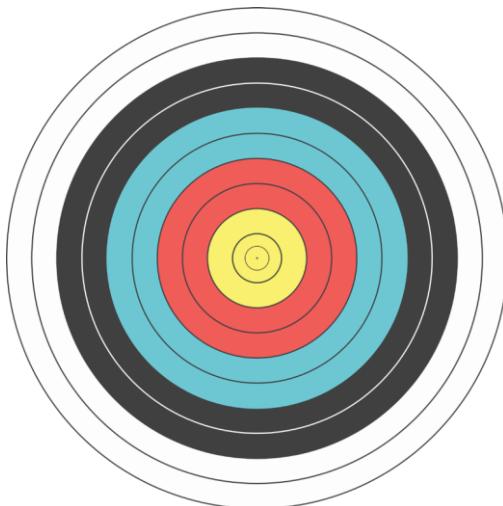
Three to five bales of straw may be stacked to serve as target butts. Make sure the bales are tied back to a post so they will not fall forward on someone pulling arrows. Care should be taken in stacking the bales to be sure they are very close together. Keep the bales off the ground by stacking them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

All Cub Scouts can earn the archery elective adventure for their rank. Information on these electives can be found at [www.scouting.org/outdoorprograms](http://www.scouting.org/outdoorprograms).

## How To Set Up Outdoor Target Archery Range

Utilize the Cub Scout archery range design layout #315 which can be downloaded at <https://www.scouting.org/outdoor-programs/resources/design-guide-lines>. Set up for wide-open, cleared space.

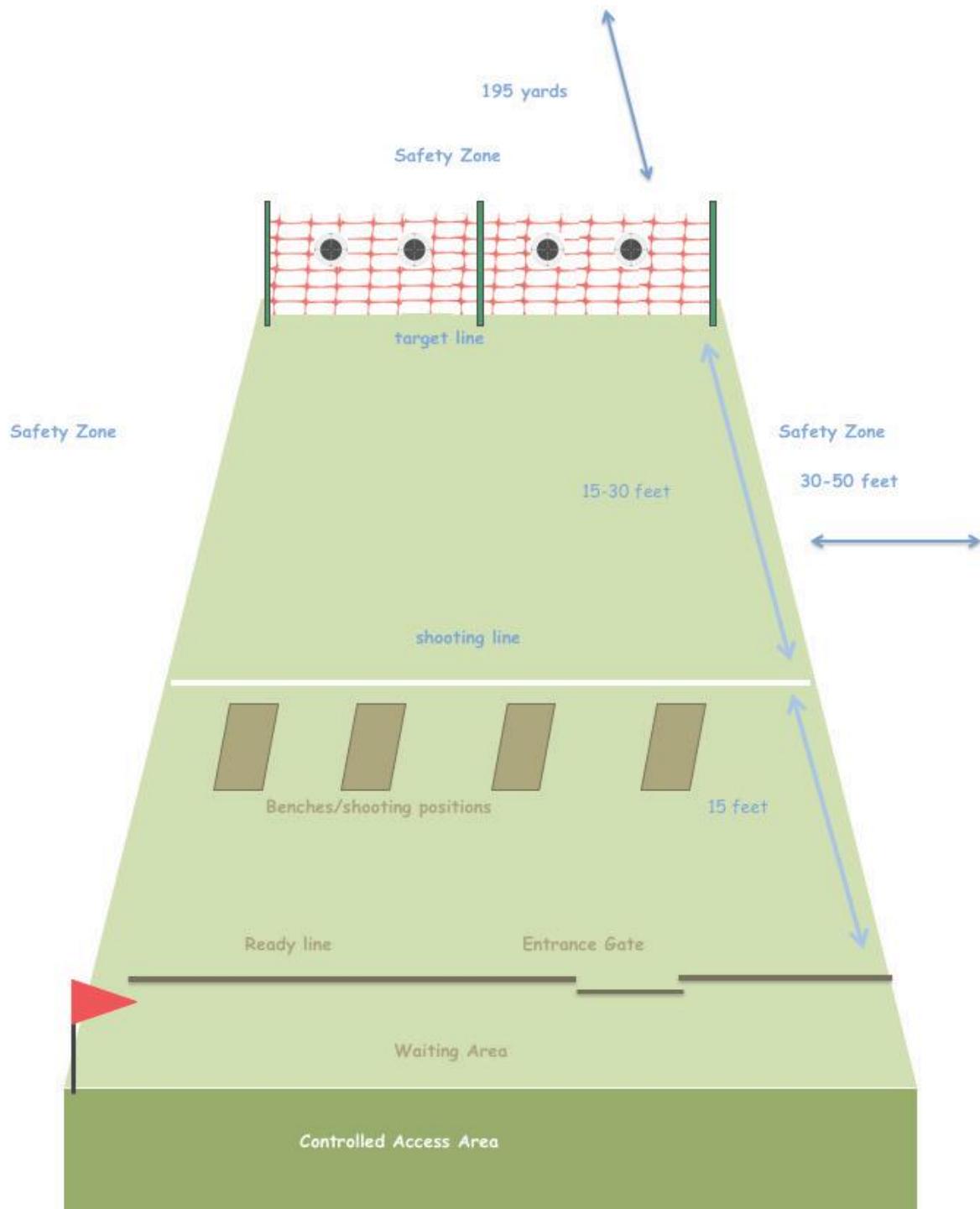
### 1. Select the Orientation of the Range

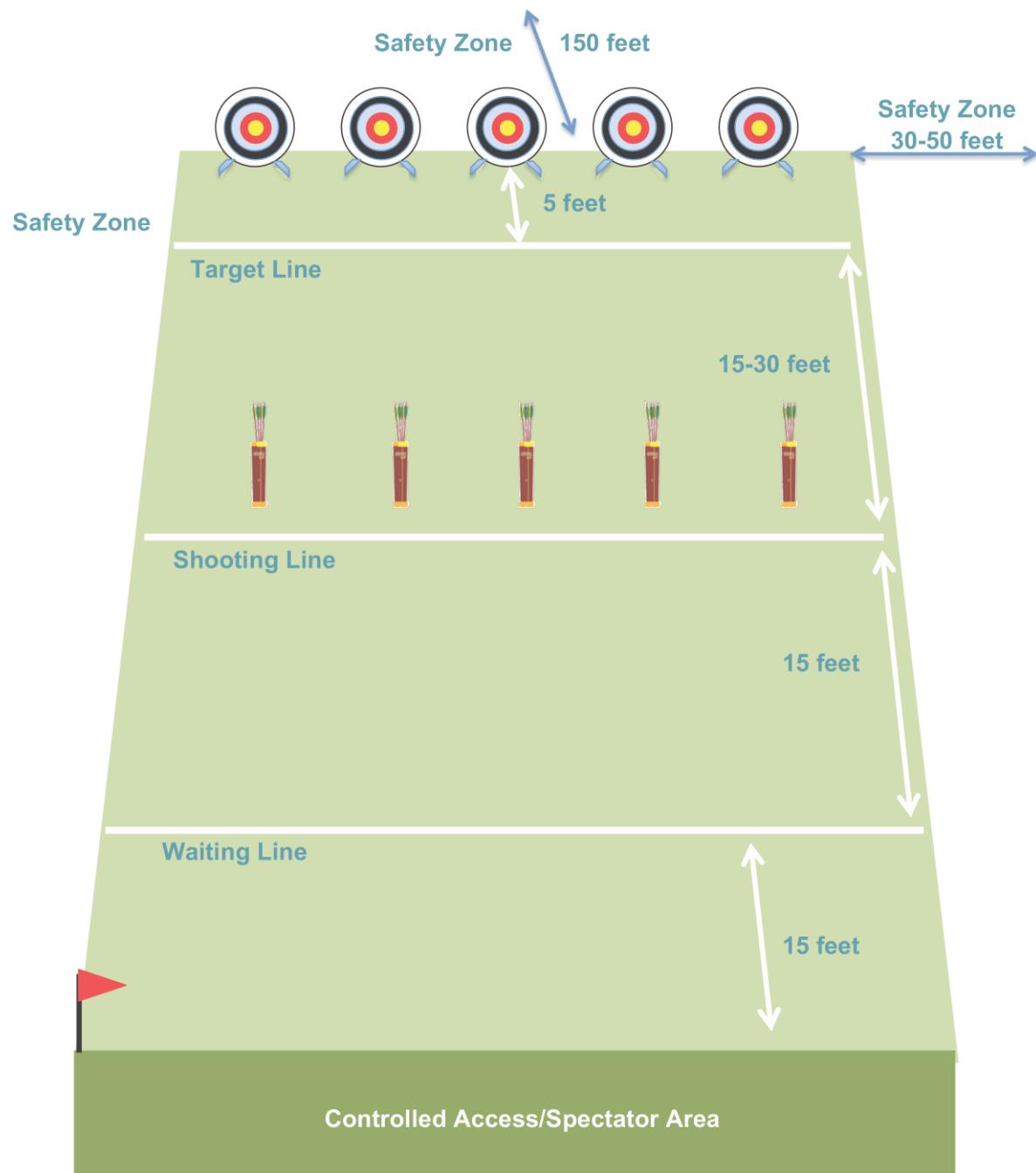
- Avoid shooting into the sun by facing North.
- The ground should be flat and free of obstacles.
- Look for a natural backstop such as a berm to stop arrows. (If there is no berm, provide a minimum of 150 feet of open area behind the targets.)
- The safety zone on the side should be 30-50 feet.

### 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.
- 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)







## GENERAL SHOOTING RANGE RULES

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



## EYEDOMINANCE

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.

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

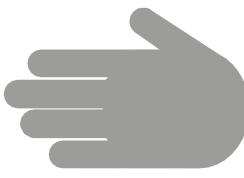
### To Find the Dominant Eye

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.

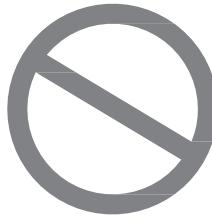




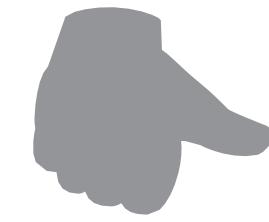
IF YOU FIND A GUN



STOP!



LEAVE THE AREA!



DON'T



TELL AN ADULT!



## SUGGESTED BB GUN RANGE COMMANDS

LOAD.

LOAD YOUR BB GUN.

READY ON THE FIRING LINE.

ALL SHOOTERS ARE READY.

COMMENCE FIRING.

YOU MAY FIRE YOUR BB GUN.

CEASE FIRING.

STOP SHOOTING.

CLEAR ALL GUNS.

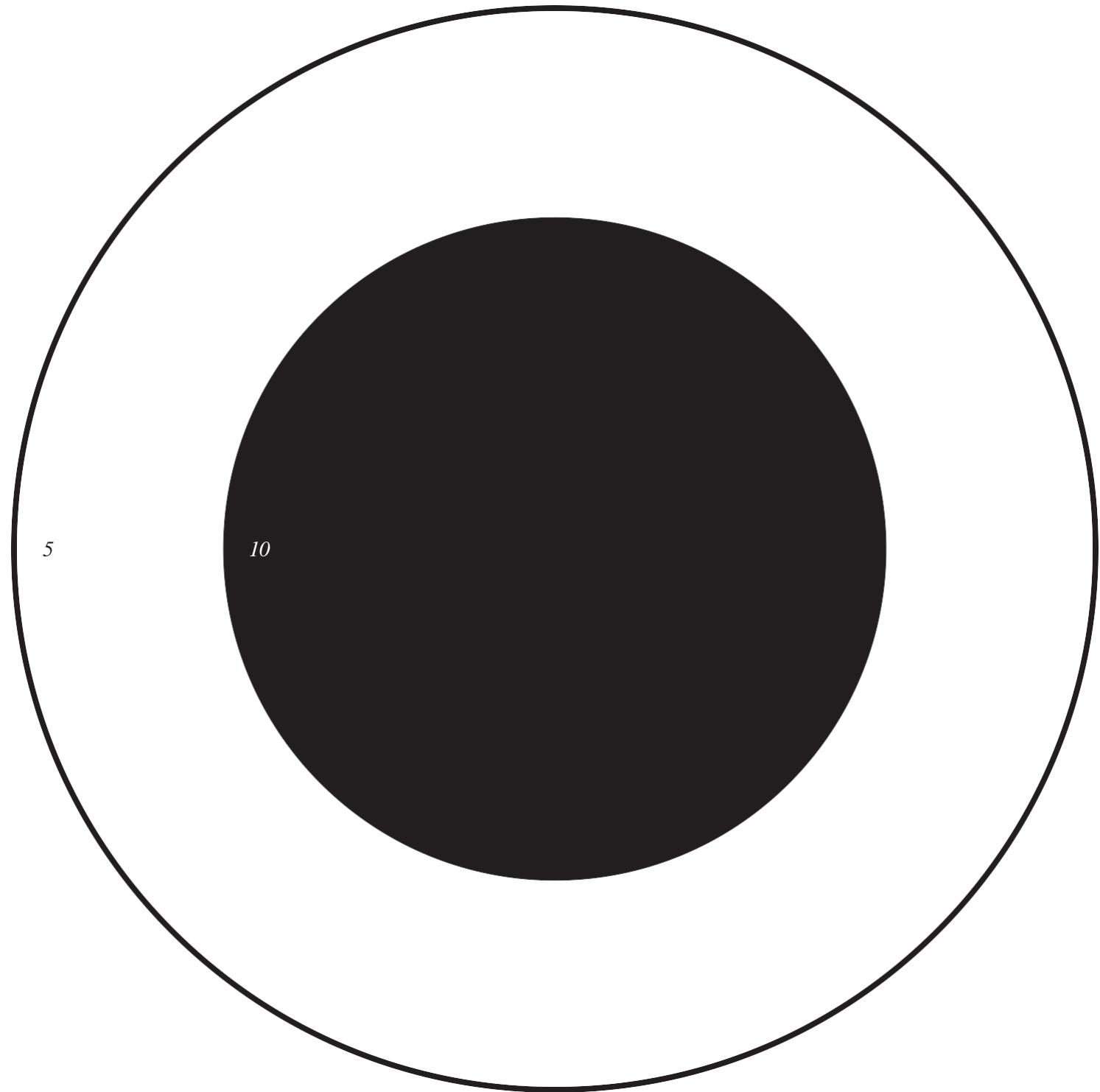
SHOW YOUR BB GUN IS EMPTY. LAY IT DOWN.



## 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.

# TIGER TARGET

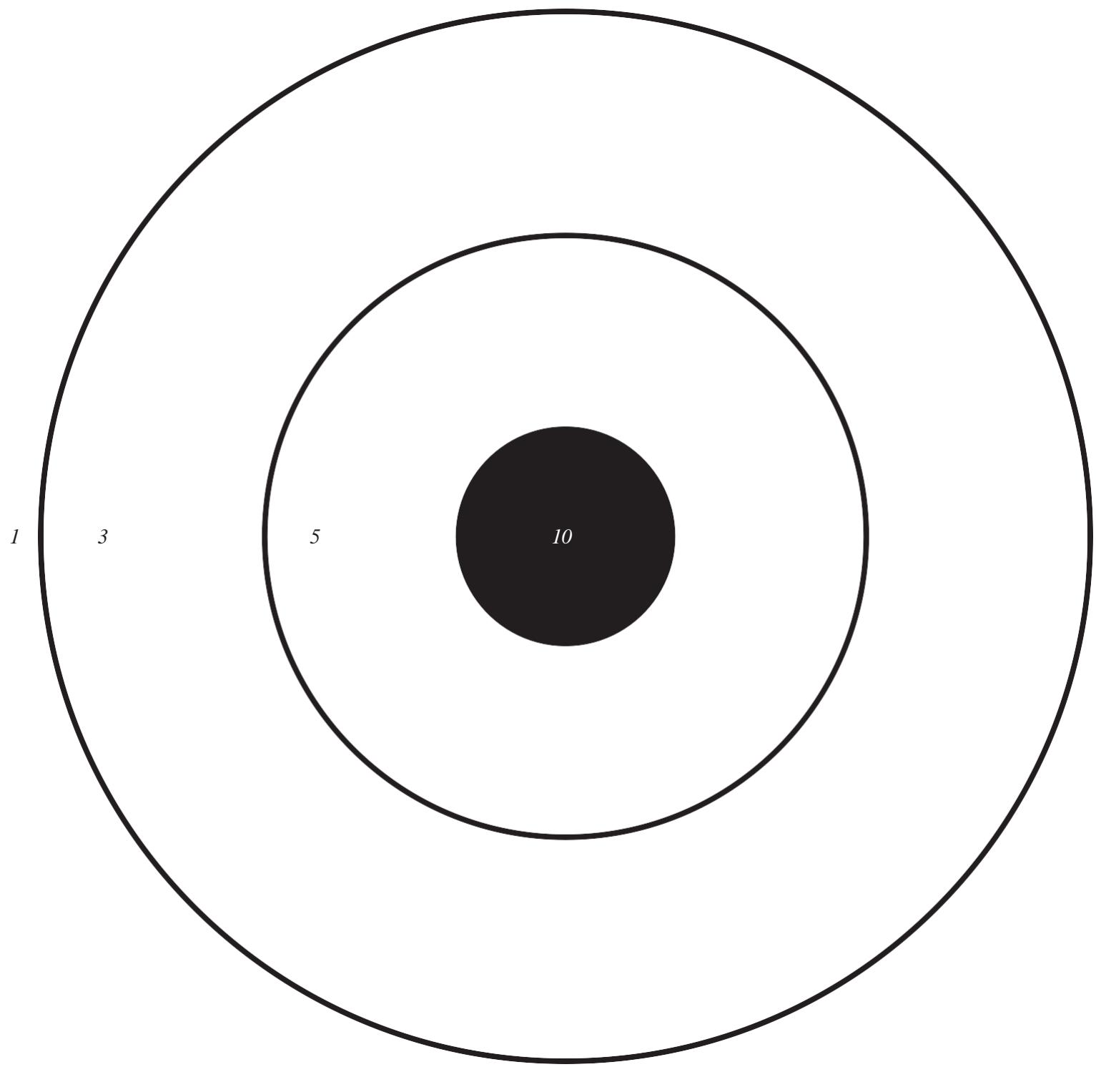


Name

/ /  
Date

Score

## WOLF/BEAR TARGET

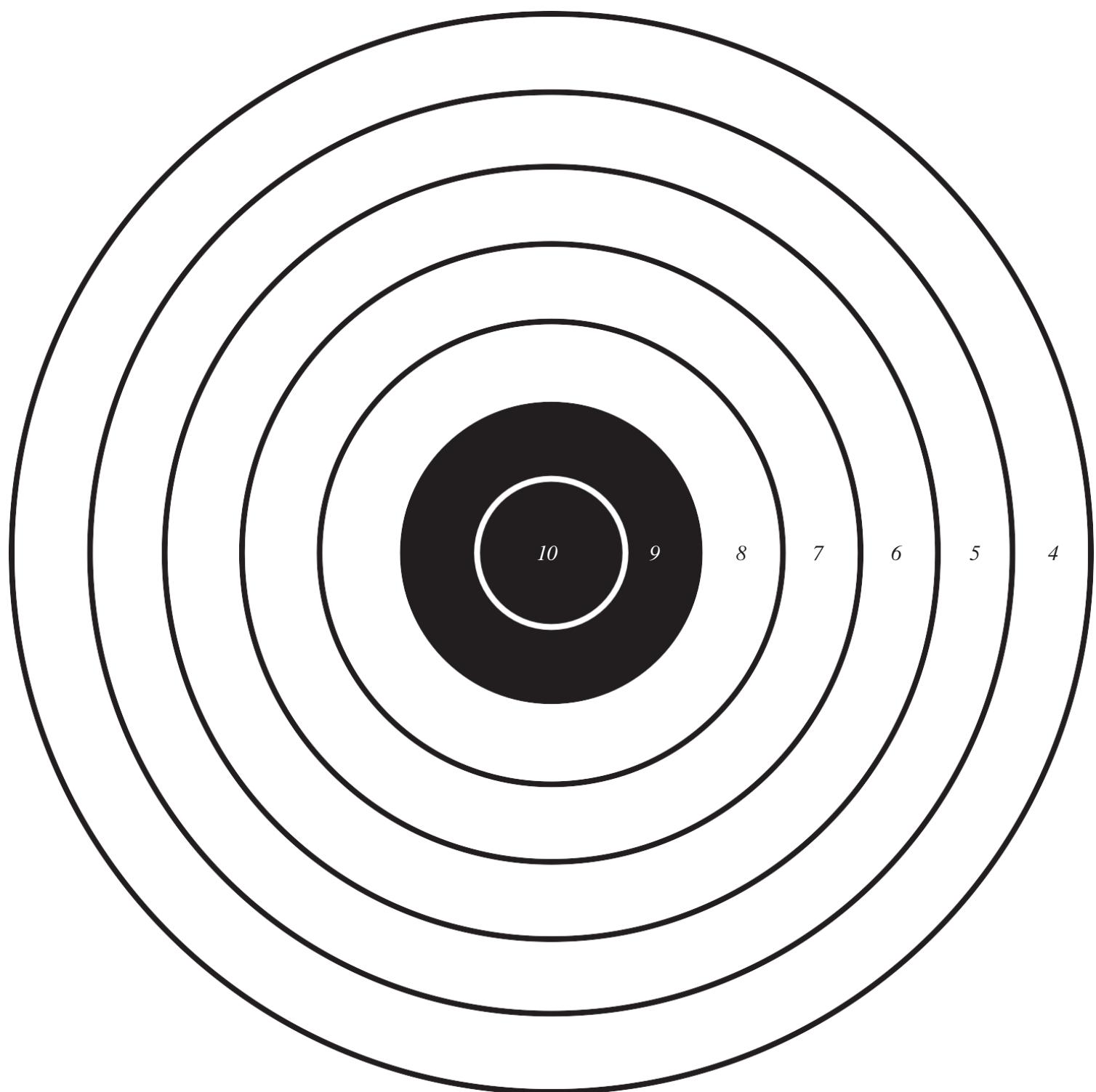


Name

/ /  
Date

Score

WEBELOS/AOL TARGET



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Name

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/ / /

Date

---

Score

## ARCHERY RANGER RULES AND COMMANDS

### ARCHERY RANGER 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.

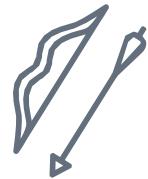
**ONE BLAST** = Fire the proper number of arrows.

**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

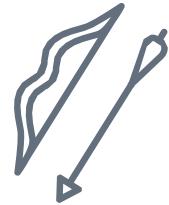
- At the completion of the draw, the relaxed thumb of the right hand finds an anchor spot under the jawbone.
- Using the jawbone as an anchor, the bowstring will touch the nose and the center of the chin.
- It is important that the anchor point be the same for every shot.

### 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.

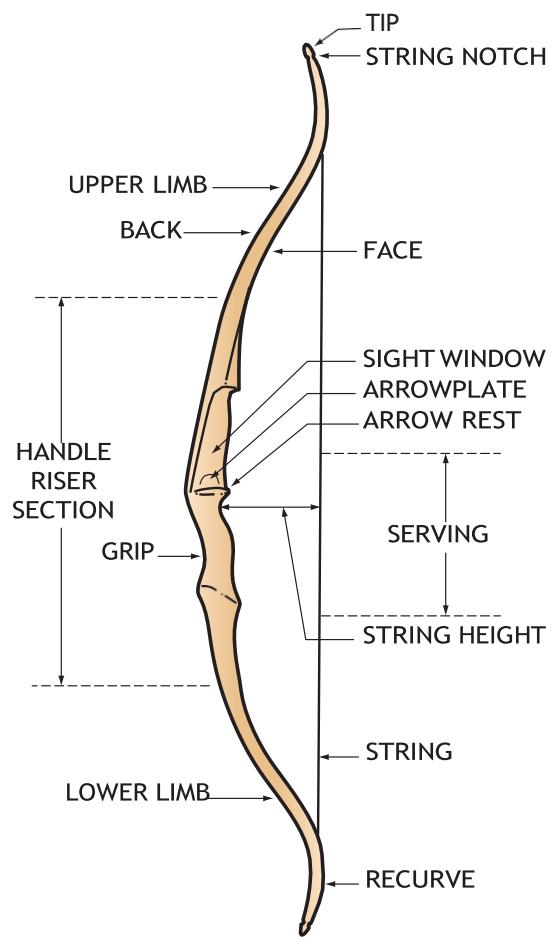
### Follow-Through

- 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.

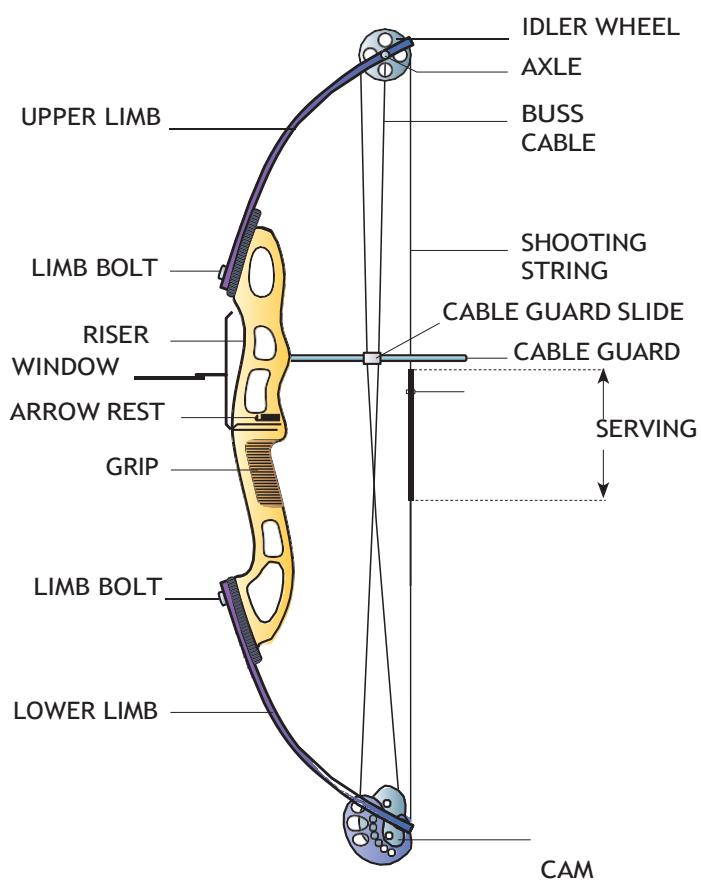


## TYPES OF ARCHERY BOWS

### RECURVE BOW



### COMPOUND BOW





## GENERAL SLINGSHOT RANGE COMMANDS

LOAD.

LOAD YOUR SLINGSHOT.

READY ON THE FIRING LINE.

ALL SHOOTERS ARE READY.

COMMENCE FIRING.

YOU MAY FIRE YOUR SLINGSHOT.

CEASE FIRING.

STOP SHOOTING.



## GENERAL SLINGSHOT RANGE RULES

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

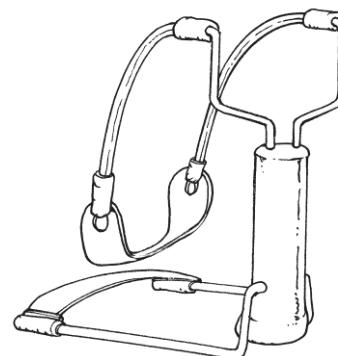


## SLINGSHOT SAFETY RULES

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

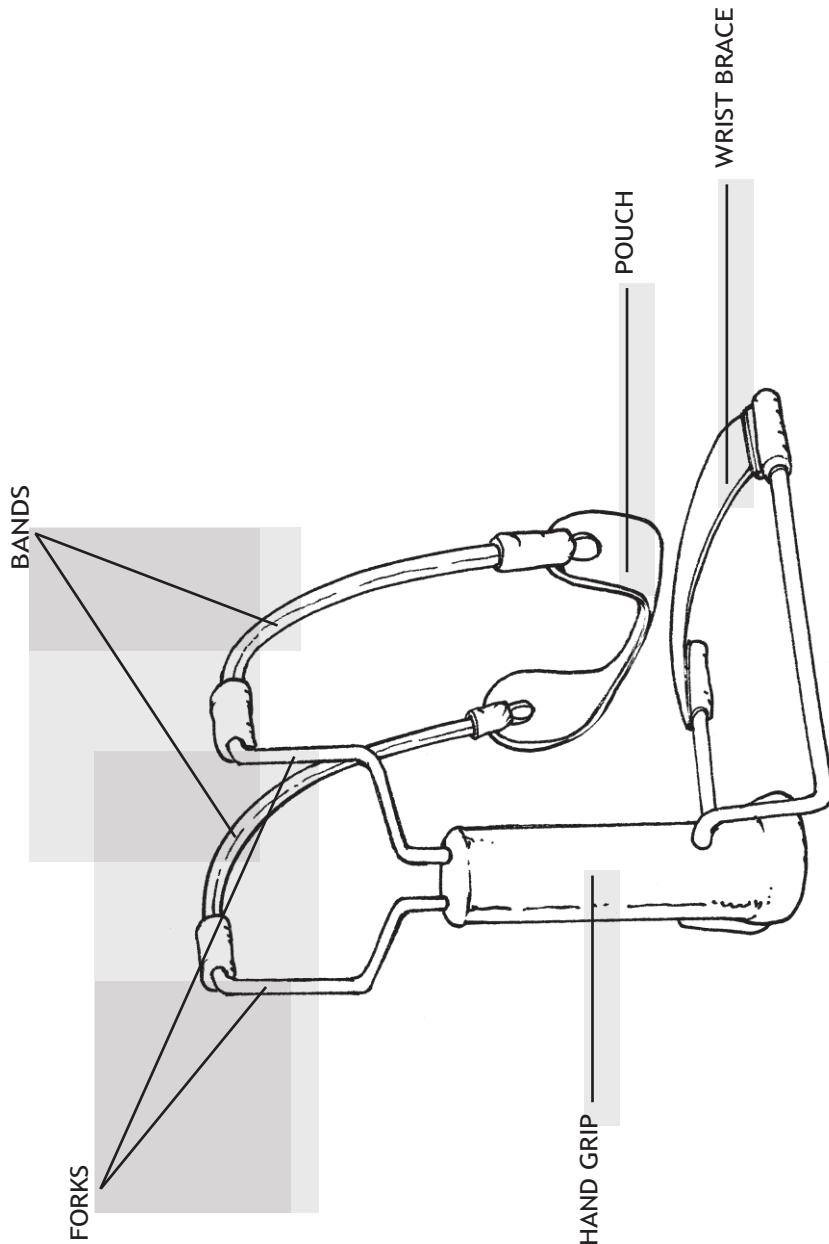
ALWAYS KEEP THE BANDS AT REST UNTIL YOU ARE READY TO SHOOT.

ALWAYS KEEP THE POUCH AMMUNITION FREE UNTIL READY TO USE.





# PARTS OF A SLINGSHOT



## Range and Target Activities Program Ideas

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

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

Targets for BBs, arrows, and slingshots can be made from a variety of materials, including paper, cans, plastic bottles, and balloons. Paper targets can be 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.

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

## Fun Target Activities for BB Shooting

### Target Squares

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

### Mystery Dots

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

### BB Tic-Tac-Toe

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

### Cracker Shoot

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

### Action BB Gun Shooting Course

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

## Fun Target Ideas for Archery Shooting

### Archery Tic-Tac-Toe

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

### Wand Shooting

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

### Shoot the Monster

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

### Ring the Bell

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

### Football Placekick

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

### Archery Practice Fun

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

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

## Action Archery Course

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

## Fun Target Ideas for Slingshot Shooting

### Feed the Monster

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

### Tin Can Alley

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

### Tire Target

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

### Ring-a-Ding

Hang bells from strings. Shoot to strike the bells.

### Chart Paper Target

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

### Slingshot Target Course

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

## Bikathlon

The bikathlon event is modeled after the winter Olympic biathlon in which competitors cross-country ski and shoot rifles. In the bikathlon, the Cub Scouts bike around an off-road course, stop at various points, dismount from the bikes to shoot targets that fall over when struck, and then continue along the course.

Though the sport requires a certain amount of strength for the biking portion, the shooting sports activity is the key to the event.

### Setting Up the Course

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

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

### Running the Race

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

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

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

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

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

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

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

## Archery Range Rules and Commands

### EQUIPMENT AND MATERIALS

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

### PERSONNEL

Assign adults to the following positions:

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

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