



# INDIANA 4-H SHOOTING SPORTS EDUCATION

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_

Club \_\_\_\_\_

# 4-H Shooting Sports Education

Your positive growth and development is the primary goal of the 4-H Shooting Sports Education program.

**Objective:** This guide was developed to help youth learn about shooting sports. It provides “learn-by-doing” activities that teach about archery and firearm parts and basics. Safety is of primary importance throughout this project.



4-H Shooting Sports Education goals:

- To promote the highest standards of safety, sportsmanship, and ethical behavior, including sound decision making
- To teach safe and responsible use of firearms and archery equipment, self-discipline, and concentration
- To strengthen families through participation in lifelong recreational activities
- To enhance development of self-concept, character, and personal growth through safe involvement in shooting activity
- To encourage responsible, self directed, and productive members of society
- To develop participation in natural resources and related natural science programs by exposing participants to the content through shooting, hunting, and related activities
- To expose youth to the broad array of vocational and lifelong hobbies related to the shooting sports

**Authors:** Tim Beck, Natalie Carroll, Ron Downing, Andrew Garrison, Kendall Martin, Dirk Studebaker, and the Indiana Hunter Education Shooting Sports State Team

**Reviewers:** Tim Beck, Jerry Boyle, Lois Boyle, Chris Clark, Shirley Kurtzhals, Mike Maddox, Kendall Martin, Jim Peter, Mark Pochon, John Rickelman, Melva Stamberger, and Dirk Studebaker

**Editor:** Rebecca Goetz

Funding for the design, layout, and printing of the draft manual was provided by the National Wild Turkey Federation

Puzzles were developed using DiscoverySchool's Puzzlemaker (<http://puzzlemaker.school.discovery.com/>)

Illustrations and design by Brandon Ray and Jessica Seiler  
Additional illustrations by Cindie Brunner, Michael Waskiewicz, and Suzanne Clements

# Table of Contents

Safety.....	1
Eyes & Ears.....	2
Range Commands and Lead Concerns.....	3
Discipline Descriptions.....	4
Archery.....	6
Muzzleloading.....	8
Outdoor Pursuits.....	10
Pistol.....	12
Rifle.....	14
Shotgun.....	16
Ammunition.....	18
Resources.....	19
Crossword.....	20
Record Sheets.....	22
Glossary.....	26

## Shooting Sports Safety

### Cardinal Rules:

**Always keep the arrow or muzzle pointed in a safe direction.  
Always keep your finger off the trigger or string until ready to shoot.  
Always keep your firearm or bow unloaded until ready to use.**

### Other safety rules to follow:

- » Be sure your firearm or archery equipment is safe to operate.
- » Know how to use firearm or archery equipment safely.
- » Use only the correct ammunition for your firearm or archery equipment.
- » Know your target and what is beyond it.
- » Wear eye and ear protection as appropriate.
- » Never use alcohol or drugs.
- » Store guns so they are not accessible to unauthorized persons.
- » Be aware that certain types of firearms and many shooting activities require additional safety precautions.

Safety — Safety — Safety

# Eyes & Ears

Before you learn to shoot, you need to determine your eye dominance.

Explain how to determine your eye dominance (ask your shooting sports instructor, if you need help):

---

---

---

Are you right- or left-eye dominant (circle one)?



left eye



right eye

Help another person determine their eye dominance:



left eye



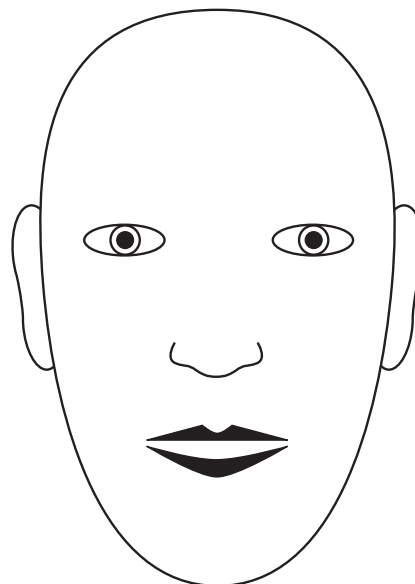
right eye

Who I helped: \_\_\_\_\_

Eye and ear protection are mandatory for all shooters, coaches, and others on the range. Vision is priceless, so protect your eyes. The impact of an injury could be serious. Stray or deflected pellets, target chips, gases and powder residue from shotguns and other foreign objects have the potential to damage the eyes. Wearing shooting glasses protects them. Many shooters combine their eye protection with corrective lenses or tinted lenses that increase contrast, reduce light intensity, or enhance vision in other ways.

Like sight, hearing is a precious gift. The sound levels produced by any powder firearm can cause hearing damage. Hearing damage is usually gradual, so the shooter seldom notices the loss until it is serious. The damage is cumulative and permanent. The damage from the prolonged exposure during target shooting or hunting is a real and present threat. Shooting without hearing protection does not show toughness. It shows foolishness. Inexpensive and comfortable hearing protection (plugs or muffs) are available. Some shooters use both plugs and muffs for added protection. Choose the type of protection that fits your shooting style and budget. Always wear them on the range.

draw eye and ear protection on the head shown:



# Range Commands

Range commands will vary from discipline to discipline and range to range. It is important that you always read, understand, and follow the range commands that pertain to the range you are on.

Activity: Write the range commands for every discipline that you are taking in 4-H this year. If your county does a "Round Robin" you will need to write up (and be very familiar with) a number of different range commands (use separate pieces of paper).

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

## Lead from Firearms

Lead from the balls or exposed lead ammunition pose potential health problems. Hands should always be washed after handling the 100% pure lead balls used in muzzleloaders. The lead exposure from muzzleloading is small, but it is a good idea to avoid exposure as much as possible. Lead balls should never be placed in the mouth.

Even percussion caps and centerfire primers are a source of lead. The priming compound used in modern caps is lead styphnate. For this reason, care should be taken when handling caps. Lead exposure is cumulative.

Avoid eating or drinking on the range. Do not eat or drink until after the hands have been washed. People should not smoke until after the hands have been washed.

Suggestion for coaches and shooters: Always have anti-bacterial moist towelettes available on the range so you can wipe your hands carefully once you are through shooting.

# Discipline Descriptions

Archery: Archery involves a fascinating group of sports for people of all ages. The fundamentals are simple. The requirements are few. A new archer can be shooting fairly well within a short time, if he or she has the benefit of a planned approach to developing the basics of form.

The 4-H Shooting Sports archery discipline covers the basics of archery. It provides the beginning archer with a broad, sound foundation for learning the discipline and enjoying archery over a lifetime. Many approaches have been used to teach archery. Some are effective; others interfere with learning. The approach used in the 4-H program has proven successful with young people and adults across the country.

Muzzleloading: Muzzleloading firearms are more complicated than modern firearms because the shooter loads each shot, rather than using a cartridge. You will learn a great deal about firearms by learning to load, shoot, and care for a muzzleloader. Therefore, this class is generally reserved for experienced shooters. Learning about muzzleloading firearms is also a great way to relive history and learn about the firearms that our ancestors used every day to provide food, defend their families, fight their wars, and secure our independence.

Outdoor Pursuits: Learning about the outdoors and wildlife is fun, important for hunters, and can lead to lifelong study. Hunting is a major part of the outdoor experience for some people while others like to “hunt” with a camera and some just like to be outside and enjoy nature. Wildlife studies will enhance your outdoor experience, whatever your goal. It teaches many different things, including: necessary habitat components, carrying capacity, predator and prey relationships, wildlife identification, species interactions, wildlife management and conservation, tracking, and the role of hunting regulations in management of wildlife populations.

Youth who are interested in hunting require additional information, including the proper use of hunting arms and ammunition (archery, handguns, rifles, shotguns), basic firearm safety, hunting safety, muzzle control in the field, zone of fire, use of blaze orange, planning a safe hunt, first aid, hunting ethics, hunting regulations, open seasons, bag limits, licenses required, lawful methods of taking, target identification, and knowledge of proper field care of game. Often, game/wildlife cooking is included in wildlife hunting studies.

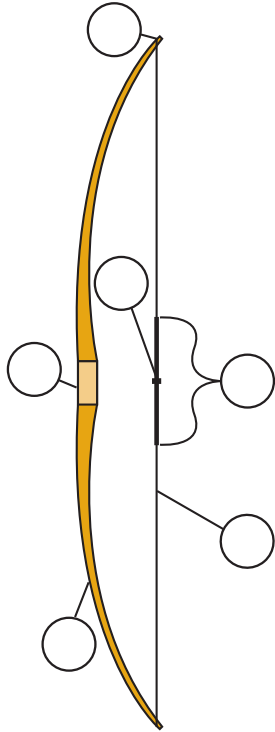
Pistol: The 4-H pistol program provides a comprehensive course that fills the practical needs of pistol owners and non-owners, shooters, and non-shooters. Its primary purpose is to teach the basic knowledge, skills, and attitude necessary to safely and successfully pursue an interest in pistols and shooting. This program provides a student with a solid foundation for a lifetime of safe and enjoyable pistol activities such as competitive shooting, plinking, and collecting.

Rifle: Shooting a rifle is an acquired skill that calls for a step-by-step learning approach like any other sport. Taken individually, each step is simple. The right rifle, target, and ammunition coupled with practice and desire to learn will enable you to become a good marksman.

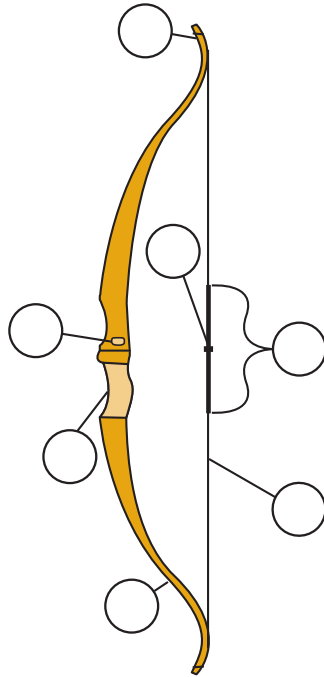
Shotgun: Shotgun shooting is exciting to many young people. Proper preparation, organization, and orientation are the keys to successful instruction. Since youth development is the foundation of the program, the instructor must keep the young people in mind at all times. Safety is always a primary consideration. The instructor must maintain the highest standards of safety at all times for participants, other instructors, and all assistants. The methods used here introduce fundamentals of firing a shotgun, informal games that can be used to increase shotgun shooting skill, and fundamentals of the formal target games with shotguns.

# Archery

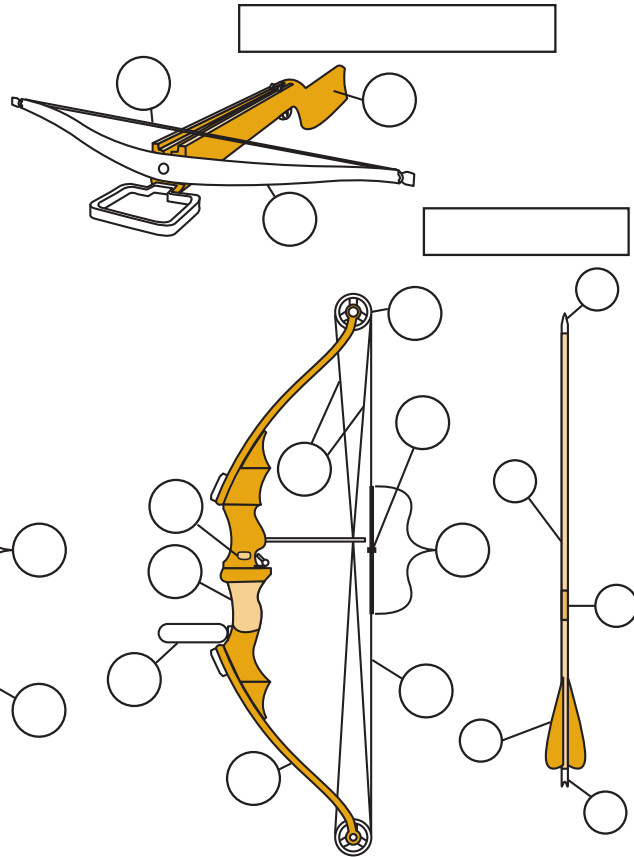
Name the types of bows. Label the parts of the archery equipment using the letters listed at the bottom of the page. Then find the words in the puzzle below.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

- A - ARROW
- B - CABLES
- C - COMPOUND BOW
- D - CREST
- E - CROSSBOW
- F - FLETCH
- G - GRIP
- H - LIMB
- I - LONG BOW
- J - NOCK
- K - POINT
- L - RECURVE BOW
- M - REST
- N - SERVING
- O - SHAFT
- P - STABILIZER
- Q - STOCK
- R - STRING
- S - STRING NOCK
- T - WHEEL

W	S	Q	W	P	B	X	K	P	S	S	Q	S	C	B
O	Q	T	I	O	G	S	G	C	E	V	T	U	R	O
B	G	R	R	D	B	E	T	L	O	A	R	U	E	R
G	G	C	F	I	H	S	B	R	B	T	T	R	S	Q
N	L	I	M	B	N	A	S	I	I	D	S	E	T	I
O	J	M	R	X	C	G	L	O	H	N	T	C	V	J
L	S	E	B	H	I	I	N	S	R	A	G	U	V	U
J	S	Z	W	V	Z	X	V	O	C	C	Z	R	I	J
T	O	F	L	E	T	C	H	I	C	M	X	V	W	L
G	J	T	R	C	I	R	T	N	E	K	C	E	W	E
C	O	M	P	O	U	N	D	B	O	W	H	B	P	E
T	F	A	H	S	R	T	O	R	D	C	K	O	F	H
M	K	T	R	Q	S	V	Z	C	F	N	I	W	X	W
F	G	N	I	V	R	E	S	L	K	N	T	F	W	E
G	N	A	R	R	O	W	I	W	T	C	B	T	L	X

NOTE: two word terms are shown as one word.

