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# Introduction

## Hunter Education in Ohio and North America

### History

Welcome to Ohio's hunter education program. Since the late 1950s, over 750,000 Ohio youth and adults have completed our hunter education course. Through the years the course has changed from a very basic safety orientation to topics that concentrate on conservation, firearms knowledge, safety, ethics, and responsibilities. Prior to 1979, completion of a hunter education course was voluntary. Now, all first-time hunting license buyers must successfully complete a course to purchase their license. In addition to Ohio, there are requirements for hunter education in 49 states and all the Canadian provinces. The good news is that hunting accidents are at an all-time low in North America due to hunter education and today's more safety-minded, responsible hunters. Your successful completion of this course will not only allow you to meet the requirements of Ohio, but other states and Canadian provinces as well. In other words, you can present your Ohio Hunter Education Card to buy an out-of-state license or permit.

Some states have additional educational requirements for hunting with archery, handgun, or muzzleloading equipment. You need to check with the state or provincial wildlife agency before leaving on a hunting trip.

### Funding

Sportsmen pay for this course and all of Ohio's hunter education materials. The Pittman-Robertson Act, commonly called the Federal Aid in Wildlife Restoration Act was signed into law in 1937. This act provided funding for states to buy hunting land, manage wildlife populations, conduct research, and pay for hunter education programs by putting a federal excise tax on firearms and ammunition. To date, more than \$5.5 billion has been collected for conservation. Hopefully, you will soon become one of the sportsmen or women that help fund conservation in North America.



### Safety Record

How safe is hunting? Regardless of what you hear or read in the news, hunting is one of the safest of all outdoor recreation activities. The reason hunting accidents make front page news is that they are so rare they are newsworthy. Hunting is a lot safer than football, baseball, soccer, and even golf. In fact, annually in North America almost as many people are struck and killed by lightning as are shot and killed in hunting accidents. In a typical hunting year less than 7/100,000 or 1 percent of Ohio hunters will be injured with a gun or bow while actively hunting. Statistically, you are at greater risk of injury while riding in a motor vehicle to and from your hunting location. This is an outstanding safety record that many other organizations and groups envy. Hunting could even be safer if all hunters would learn and obey the main safety rules listed in this manual. Do your part to keep hunting safe. Do not become one of Ohio's rare hunting accident statistics!

## Why Hunt?

Hunting plays an important role in our society. It provides state and federal wildlife agencies with a useful tool for conservation. Hunting directly finances most of our wildlife management activities through license fees, self-imposed taxes, and hunting permits and stamps. Regulated hunting, wildlife management, and habitat protection have benefited wildlife in this country and in Ohio. We have more species of wildlife than ever before in

our state. Individually, we hunt for many reasons. Perhaps some people hunt to seek nature or solitude while others hunt to share time with family or friends. Some hunters want a break from the hustle and bustle of everyday life while others seek a challenge to use their knowledge and skills to match wits with a particular wildlife species. Whatever the reason, hunting can be a humbling and rewarding experience. Your participation can help insure the future of wildlife

management programs and the future of hunting. You have the responsibility to become the most ethical hunter you can be. There should be no tolerance for those who misuse and abuse our land and wildlife resources. Your mission as a new hunter is to gain the knowledge, master the skills, and challenge the great outdoors! Good luck! You will be in the company of many other Ohio sportsmen and women.



# Section I: Firearms

## Chapter 1: Shotguns

STUDENT PERFORMANCE OBJECTIVES

In this chapter, the student should learn:

1. The difference between shotguns and other types of firearms
2. What a choke is and how it works
3. The four types of shotgun actions
4. The difference between gauges and the dangers of mixing ammunition
5. Four primary safety rules of gun handling
6. How to properly match ammunition to the shotgun
7. How to check a barrel for obstructions
8. How to safely handle, load, and unload firearms while maintaining safe muzzle control
9. Why eye and ear protection are important while shooting
10. The components and types of ammunition used in a shotgun

### Safety First

There are important safety rules to follow before a gun is loaded. One of these rules is checking the barrel for an obstruction or blockage. **First, open the action to make sure**

### Parts of a Pump Action Shotgun



**the firearm is unloaded.** If the firearm is a “hinge action,” look through the barrel from the breech end to insure that it is free of obstruction. If the firearm is any other type of action, use a cleaning rod to run through the barrel or use a small dental mirror inserted into the action to look through the barrel insuring that the barrel is free of an obstruction.

When target shooting or practicing, you must also protect yourself by wearing ear protection



and eye protection. High sound levels can eventually cause hearing loss, and flying objects could cause eye damage or even blindness.

Each hunter is responsible for handling all firearms safely at **all** times, not only when in the field.

There are four primary rules to follow:

1. **Keep the muzzle (open end of the barrel) pointed in a safe direction** at all times.
2. **Treat every gun as if it is loaded.** No matter how many times you have seen the gun checked, you must still treat it as if it is loaded. Always check every gun yourself.
3. **Always be sure of your target and beyond.** This means that you never point at anything you do not want to shoot and are

### SHOTGUN KEY TERMS

barrel	shot
stock	safety
action	sights
muzzle	wad
gauge	plug
shotshell	magazine
choke	centerfire

aware of what is behind your target to insure a safe backstop.

4. **Keep your finger off the trigger until you are ready to fire.** If you stumble, you may pull the trigger.

## Shotguns

The main difference between a shotgun and other firearms (rifles and handguns) is the design of the barrel. Traditionally, shotgun barrels differ from rifle/handgun barrels by possessing smooth “bores” and by having comparatively thin walls.

But, before we can fully explain this difference, let’s discuss what a shotgun barrel is and how shotgun barrels are designed.

## Parts of a Shotgun

All firearms are composed of three basic parts:

1. **Barrel** - This is the tube extending from the action that the bullet/shot passes through when a firearm is fired.
2. **Action** - This is the part that loads, fires, and unloads the firearm. There are different types of actions that will be discussed later.
3. **Stock** - The action and barrel are attached to the stock. It is the part you hold to aim or point the firearm.

## Parts of a Pump Action Slug Gun



## Barrel

A shotgun is designed to shoot many pellets from a smooth barrel at moving game. These pellets are commonly called **shot**, and are made from lead, steel, or other material. Shotguns can also be used to fire a single projectile with a smooth or rifled barrel at stationary game, such as deer.

Shotguns are shot from the shoulder and are pointed when firing shot shells. They are aimed when firing a single rifled slug. Always match the ammunition to the shotgun that you are using.

## Actions

There are four basic types of actions for shotguns. They are:

1. **Hinge action** - This type is just as the name implies. It opens and closes just like the hinge on a door. This action may have one or two barrels (they may be side by side or one over the other).
2. **Pump action** - This type of action has a forearm in the front

Hinge Action  
Closed Open



Pump Action  
Closed Open



Bolt Action  
Closed Open



Semi-automatic Action  
Closed Open



Hinge Actions  
Over/Under, Single Shot, and  
Side by Side



under the barrel that you pull and push to operate the firearm. This is where it gets the name “pump action.”

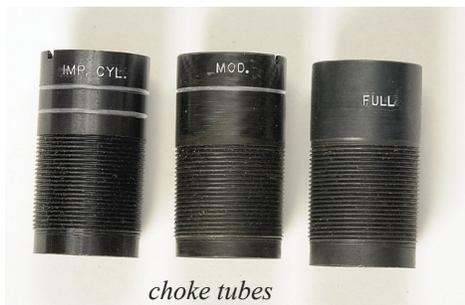
3. **Bolt action** - This type of action has a bolt handle on the side, which must be lifted, pulled to the rear, returned to the front, and locked down to operate the action.
4. **Semi-automatic** - A semi-automatic shotgun fires once and reloads with each pull and release of the trigger.

**\*IT IS NOT LEGAL TO HUNT WITH A FULLY AUTOMATIC FIREARM.**

## Stocks

The barrel and action are attached to the **stock**, or the part you hold to aim or point the firearm. A stock must fit a shooter properly to provide comfort, safety, and accuracy. Stocks are made from a variety of materials, including wood and plastics.

To point a shotgun, the butt-stock is placed firmly against the shoulder and the shooter holds the firearm with both hands while resting his/her cheek on the stock.

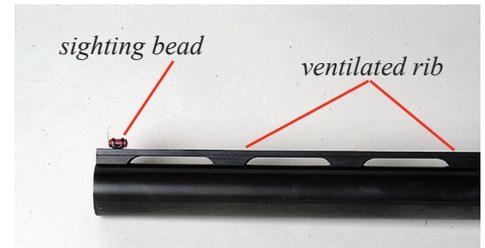


## Other Parts of a Shotgun

Some other parts of a shotgun that are important to know and understand are:

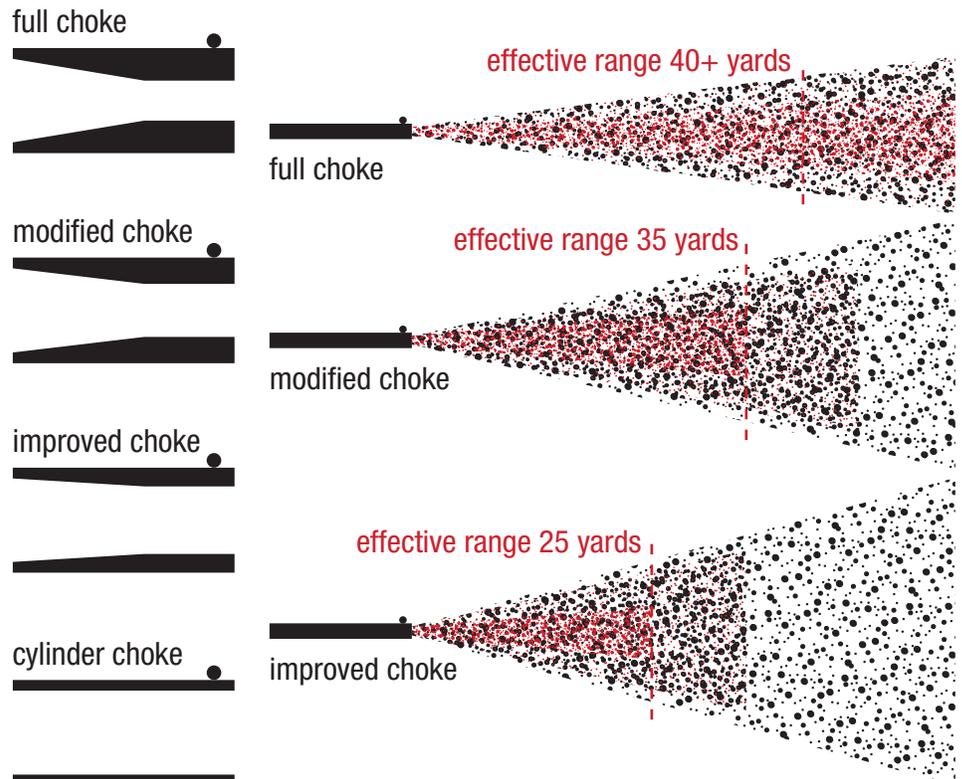
**Choke** - *The choke is a narrow section at the muzzle end of the barrel that controls the spread, or pattern, of the shot.* This works in the same way a nozzle controls the spread of water from a garden hose.

If the barrel has a smooth bore, which means that the inside of the barrel is smooth like a pipe, the choke size will be stamped on the side of the barrel. If your gun uses screw-in choke tubes, the side of the



tubes will be marked to label the type of choke.

The most restricted choke is the **full** choke, and is used for longer distance shooting. The next, more open choke is the **modified** choke, and is considered the best all-around choke. The **improved cylinder** choke is used for closer range. The **cylinder** choke has no constriction and is best used for very close shots and for rifled slugs.



**Sights** - Sights are mechanical devices that aid in aiming the firearm. When the shotgun shoots a single projectile, called a slug, it must be aimed. Common sights used when shooting slugs are open sights, telescopic sights, or electronic sights.

When using pellets in a shotgun, there is often just a bead near the muzzle and/or a rib that runs down the top of the barrel. This is because when firing shotshells, shotguns are pointed rather than aimed.

**Safety** - The "safety" is a mechanical device that locks the trigger on the firearm to prevent pulling the trigger. The firearm may still fire if it is dropped or otherwise jarred. Always keep the muzzle pointed in a safe direction. Remember, any mechanical device can fail. It is your responsibility to make sure that the safety on your gun is working correctly. Do not take a gun into the field if the safety is not working. The safety on a shotgun can be in many different places. Read your gun's instruction manual or have a knowledgeable person show you where the safety on your gun is located.

**Magazine** - The magazine is the part of the gun that holds extra ammunition. All magazines hold the ammunition that will feed into the gun when the action is operated. Some magazines can be removed from the firearm. Other magazines are permanently attached.

**Plug** - You may hear this word used when discussing shotguns. A plug is a device that is inserted into the shotgun magazine to reduce the number of shells the gun can hold. This is required by federal law for migratory game

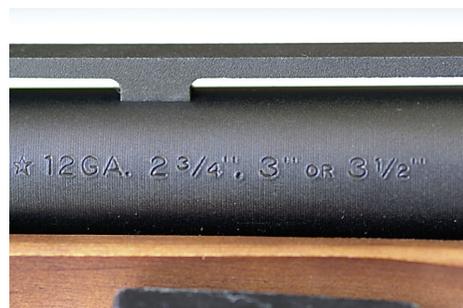
## Barrel Markings



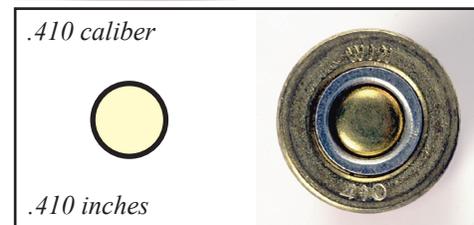
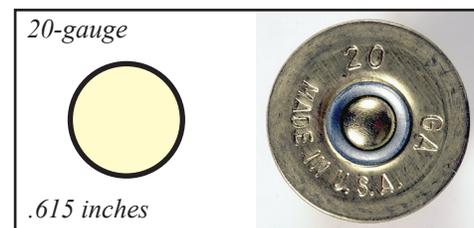
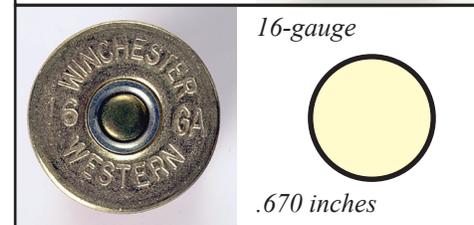
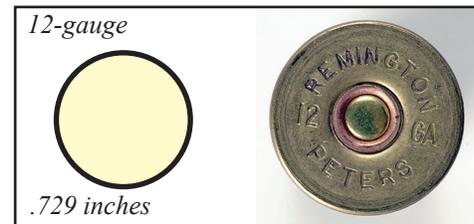
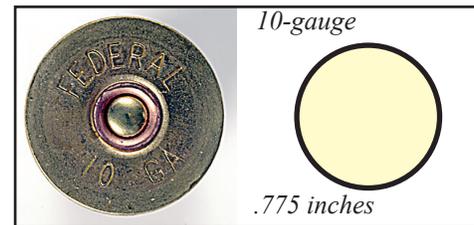
20-gauge barrel chambered for 3 inch shells



12-gauge barrel chambered for 2 3/4 inch shells



12-gauge barrel chambered for 2 3/4 to 3 1/2 inch shells



magazine plug

bird hunting and is required by state law for hunting deer with a shotgun in Ohio.

## Shotgun Gauges

Shotguns and their ammunition are identified by **gauge**. The larger the gauge number, the smaller the diameter of the bore. Common shotgun gauges will be 28, 20, 16, 12, and 10. Some shotguns use a caliber measurement instead of gauge. For example, a .410 is really a caliber measurement, not a gauge. This measurement would equal a 67 gauge.

## Shotgun Ammunition

All shotgun ammunition is called **centerfire** because *the primer is in the center of the back of the case*. However, most shooters call shotgun ammunition by the gauge of the casing that holds all the parts of the ammunition together. *The complete package that holds all the parts of the ammunition for shotguns is called a **shotshell**.*

Shotgun ammunition must be identified by gauge, case length, and type of projectile. Look at the shotgun barrel to find the gauge and case length to be used in that gun. All shotshells are stamped with their gauge on the rear of the case. Another place

to identify ammunition is the ammunition box itself.

It is very important to correctly match ammunition to the shotgun and to match the correct shot size to the game being hunted. Only carry the correct ammunition for the firearm you are using. Using the wrong ammunition can damage the gun and injure yourself and/or bystanders. For example a 20-gauge shotshell will slide down a 12-gauge barrel causing an obstruction. When a 12-gauge shotshell is loaded and fired the gun will explode.

The main parts of a shotshell are:

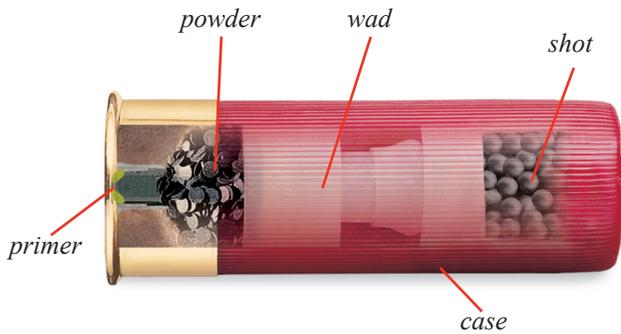
1. **Case** - The tube that holds everything together.
2. **Primer** - Ignites the powder charge when struck by the firing pin.

3. **Powder** - The fuel that burns to create the pressure that propels the shot.
4. **Wad** - *A disc-shaped piece of fiber or plastic that acts as a piston to seal in the gases that push the projectiles out of the barrel.*
5. **Projectiles** - Shotguns use two types of projectiles. They are:
  - A. **Shot** - Shot consists of many small round pellets that make up the load. Each pellet diameter is given a number. The larger the number, the smaller the diameter of the shot. (The chart on page 8 shows actual shot size.) Shot can be made of lead, steel, or other materials.
  - B. **Slugs** - A slug is a single, large projectile. Shotguns shooting a slug or a single projectile may have a rifled barrel to spin the slug so it is more stable in flight.

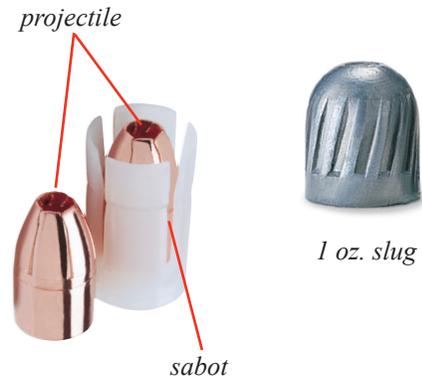
## Parts of a Shotgun Shell



# How the Parts of a Shotgun Shell Go Together



## Single Projectiles for Shotguns



## Average Pellet Count for Shotgun Shells

Shot Size	STEEL - Weight of Shot in Ounces								
	3/4	15/16	1	1-1/8	1-1/4	1-3/8	1-1/2	1-9/16	1-5/8
7	316	395	422	475	527	580	633	659	685
6	236	395	315	354	394	433	472	492	512
5	182	228	243	273	304	334	364	380	395
4	144	180	192	216	240	264	288	300	312
3	118	143	158	178	197	217	237	247	257
2	94	117	125	141	156	172	187	195	203
1	77	97	103	116	129	142	154	161	167
BB	54	67	72	81	90	99	108	112	117
BBB	46	58	62	70	77	85	93	97	101
T	39	49	52	58	65	71	78	81	84
F	30	37	40	45	50	55	60	62	65

Shot Size	LEAD - Weight of Shot in Ounces												
	1/2	11/16	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2	1-5/8	1-7/8	2	2-1/4
9	292	402	439	512	585	658	731	804	877	951	1097	1170	1316
8 1/2	249	342	373	435	497	559	621	683	745	808	932	994	1118
8	205	282	307	359	410	461	512	564	615	666	769	820	922
7 1/2	175	241	262	306	350	394	437	481	525	569	656	700	787
6	112	155	169	197	225	253	281	309	337	366	422	450	506
5	85	117	127	149	170	191	212	234	255	276	319	340	382
4	67	93	101	118	135	152	169	186	202	219	253	270	304
2	43	60	65	76	87	98	109	120	130	141	163	174	196
BB	25	34	37	44	50	56	62	69	75	81	94	100	112

## Actual Shot Sizes

Shot Sizes	F	T	BBB	BB	1	2	3	4	5	6	7	7 1/2	8	8 1/2	9
Diameter in Inches	.22	.20	.19	.18	.16	.15	.14	.13	.12	.11	.10	.095	.09	.085	.08

Buckshot Sizes	No. 000	No. 00	No. 0	No. 1	No. 2	No. 3	No. 4
Diameter in Inches	.36	.33	.32	.30	.27	.25	.24

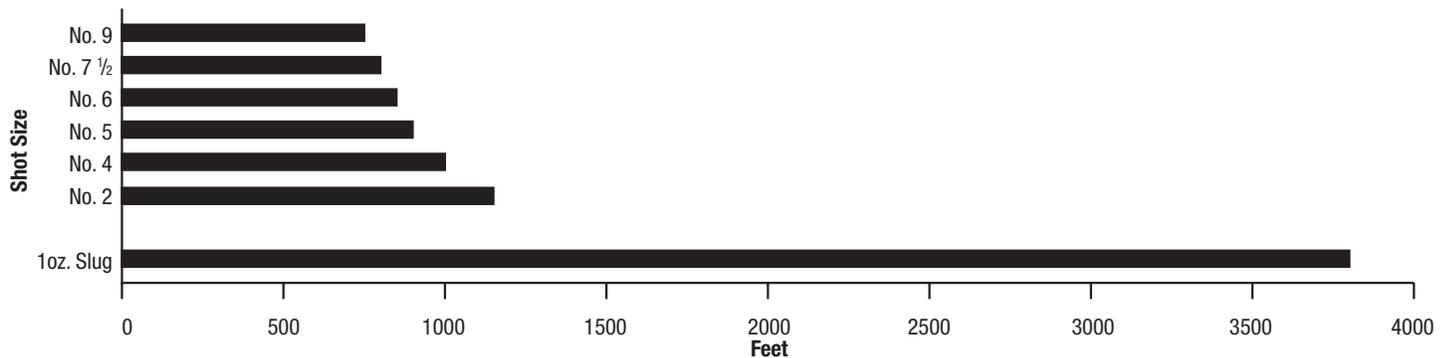


## Selecting the Right Shotshell

GAME	GAUGE	DISTANCE (Yards)	CHOKE	LEAD SHOT	STEEL SHOT
Turkey	10, 12, 20	20-30	F	4, 5, 6, 7½	
	10, 12	30+	F/EF	4, 5, 6	
Pheasant	12, 16, 20	20-30	IC/M	5, 6, 7½	3, 4, 5, 6
	12, 16	30+	M/F	4, 5, 6	3, 4, 5
Ruffed Grouse	12, 16, 20, 28	20-30	SK/IC/M	6, 7½, 8	5, 6, 7
	12, 16, 20	30+	IC/M	5, 6, 7½	4, 5
Quail	12, 16, 20, 28	20-30	SK/IC/M	7½, 8, 9	6, 7
	12, 16, 20	30+	IC/M	7½, 8	5, 6
Dove	12, 16, 20, 28	20-30	SK/IC/M	7½, 8, 9	6, 7
	12, 16, 20	30+	IC/M	7½, 8	7
Woodcock Rail Snipe	12, 16, 20, 28	20-30	SK/IC/M	7½, 8, 9	
	12, 16, 20	30+	IC/M	7½, 8	7
Rabbit Squirrel	12, 16, 20, 28, 410	20-30	IC/M	4, 5, 6, 7½	2, 4
	12, 16, 20	30+	IC/M/F	4, 5, 6	2
Large Ducks* (Mallard, Pintail)	10, 12, 16	20-30	IC/M		1, 2, 3, 4
	10, 12, 16	30+	IC/M/F		BB, 1, 2, 3
Medium Ducks* (Wood Duck, Widgeon)	12, 16, 20	20-30	IC/M		2, 3, 4, 5, 6
	12, 16, 20	30+	IC/M/F		1, 2, 3, 4, 5
Small Ducks* (Teal, Bufflehead)	12, 16, 20	20-30	IC/M		3, 4, 5, 6
	12, 16, 20	30+	IC/M/F		3, 4, 5
Large Geese* (Giant, Western Canada)	10, 12	20-30	IC/M		T, BBB, BB
	10, 12	30+	IC/M/F		T, BBB, BB
Medium Geese* (Snow, Lesser Canada)	10, 12	20-30	IC/M		BBB, BB, 1
	10, 12	30+	IC/M/F		BBB, BB, 1

\* Hunting of waterfowl requires non-toxic shot.

## How Far Will a Shotgun Shoot?



These distances may vary by shotgun gauge, case length, and choke.

# Chapter 1 Review Questions

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1. You should always wear \_\_\_\_\_ and \_\_\_\_\_ protection when shooting.

2. What are the four primary rules of gun handling? \_\_\_\_\_

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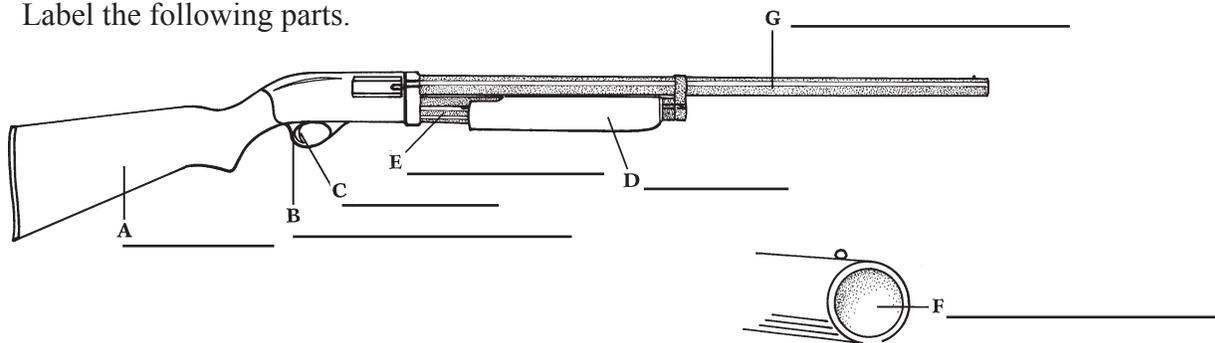
3. What part of a shotgun makes it different from a rifle? Explain how this part is different from a rifle?

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4. Label the following parts.



5. What are the three main parts of a shotgun? \_\_\_\_\_

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6. Name (Identify) the four shotgun actions. \_\_\_\_\_

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7. What part of the barrel controls the spread (pattern) of the shot and how does it do it? \_\_\_\_\_

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8. When shooting deer slugs (a single lead projectile) are shotguns pointed or aimed? \_\_\_\_\_

# Chapter 1 Review Questions

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9. Define what a shotgun's safety is and how it is to be used? \_\_\_\_\_

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10. Name the device that is inserted into the magazine of a shotgun that reduces the number of rounds the gun can hold.

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11. By looking at a shotgun, how can you tell what gauge it is and what shell length it requires?

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12. How are different types of shotguns and their ammunition identified? \_\_\_\_\_

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13. Explain how to match the proper shotshell to a shotgun and its box of ammunition. \_\_\_\_\_

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14. What would happen if you loaded a 20-gauge shotshell into a 12-gauge shotgun? \_\_\_\_\_

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15. Name (Identify) the five parts of a shotshell? \_\_\_\_\_

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# Section I: Firearms

## Chapter 2: Rifles

STUDENT PERFORMANCE OBJECTIVES

In this section, the student should learn:

1. The four primary rules of gun safety
2. How to correctly match proper ammunition to a rifle
3. The five types of rifle actions
4. Four types of rifle sights
5. Three basic parts of a rifle
6. The components of a cartridge
7. The importance of rifling in the rifle barrel

### Parts of a Bolt Action Rifle



### Rifles

While the **bore**, or the inside of the barrel, of a shotgun is usually smooth, a rifle always has a rifled bore. **Rifling** is grooves cut on the inside of the barrel in a spiral pattern. Rifling causes the bullet to spin in order to stabilize it in flight. Since a rifle shoots a single projectile (bullet), this firearm is aimed and the trigger is squeezed.

*spin*. Rifles are identified by **caliber**, or the diameter of the bore. For example, a 22 caliber is .22 inches, and a 270 is .270 inches. The rifle caliber is stamped on the barrel. Only carry the correct ammunition for the rifle you are using. If you use the wrong ammunition, you may damage the gun and may injure yourself and/or bystanders.

### Safety First

Again, during this session, remember the four basic rules of firearm safety.

1. **Keep the muzzle pointed in a safe direction.**
2. **Treat every gun as if it is loaded.**
3. **Always be sure of your target and beyond.**
4. **Keep your finger off the trigger until you are ready to fire.**

### Parts of a Rifle

Rifles, like shotguns, are composed of three basic parts: the barrel, action, and stock.

### Barrels

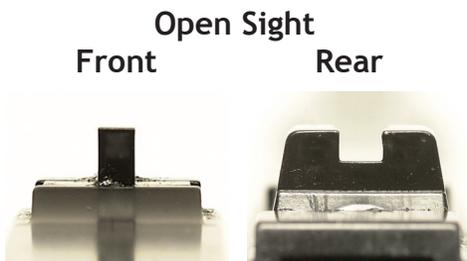
A rifle uses a rifled bore to help make the bullet more accurate. A **rifled bore/barrel** has spiral grooves cut on the inside of the barrel that cause the bullet to

### Rifled Barrel



### RIFLE KEY TERMS

rifled barrel	centerfire
stock	rifling
action	sights
bore	safety
caliber	magazine
cartridge	projectile
rimfire	



**Correct Open Sight Alignment**



## Actions

In rifles there are five basic types of **actions**- *the part that loads, fires, and unloads firearms*:

1. **Hinge action** - This action opens and closes like a hinge on a door.
2. **Pump action** - You must pull and push the forearm to operate a pump action.
3. **Bolt action** - This type of action has a bolt handle on the side which must be lifted, pulled to the rear, returned to the front, and locked down to operate the action.
4. **Lever action** - This firearm has a large lever that swings out from the bottom of the gun to operate the action.
5. **Semi-Automatic** - A semi-automatic rifle fires once and reloads with each pull and release of the trigger.

**\*IT IS NOT LEGAL TO HUNT WITH A FULLY AUTOMATIC FIREARM**

## Stocks

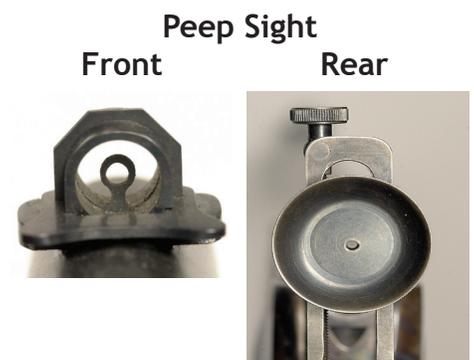
The barrel and action are attached to the **stock**, *the part you hold to aim the firearm*. Stocks are made from a variety of materials, including wood and plastics. The buttstock is placed firmly against the shoulder and the shooter holds the firearm with both hands while resting the side of the face against the cheek of the stock to aim.

### Telescopic Sight



## Other Parts of a Rifle:

1. **Sights**- *Sights are devices that help the shooter aim*. Shooting a single projectile (bullet) from a rifle requires more precise sights than the simple bead sight on a shotgun. One type of rifle sight is the **open sight**, which has a post in the front and a simple notch at the rear. Another type of sight is the **peep sight**. This sight has a post or a circle at the front of the barrel, but the rear sight has a round hole that you look through to center the post on the target. A third type is the **telescopic sight**. This sight magnifies the target and uses a cross hair, a dot, a post, or a combination of these, to aim. A final type of sight is the **electronic sight**. This type of sight looks and functions very similar to a telescopic sight. However, with an electronic sight there is little or no magnification and generally there is only an electronically imposed red dot on the target as an aiming device.



### Electronic Sight



2. **Safety** - The “safety” is a mechanical device that locks the trigger on the firearm to prevent pulling the trigger. **The firearm may still fire if it is dropped or otherwise jarred. Always keep the muzzle pointed in a safe direction.** Again, you must remember that the safety is a mechanical device and it may fail. Always remember and practice the four primary rules of gun safety, even when your safety is on. The safety on a rifle can be mounted in many different places. Read your gun’s instruction manual or ask a knowledgeable person where the safety is located and how to operate it. Always keep the safety on until you are ready to fire.

**Safety**



**Bolt Action**

**Semi-auto**

3. **Magazine** - This is the part that holds the ammunition in a repeating firearm until it is needed. It can look like a tube, a box that is built into the gun, or a box that can be removed from the gun.

**Magazine**



**Rifle Ammunition**

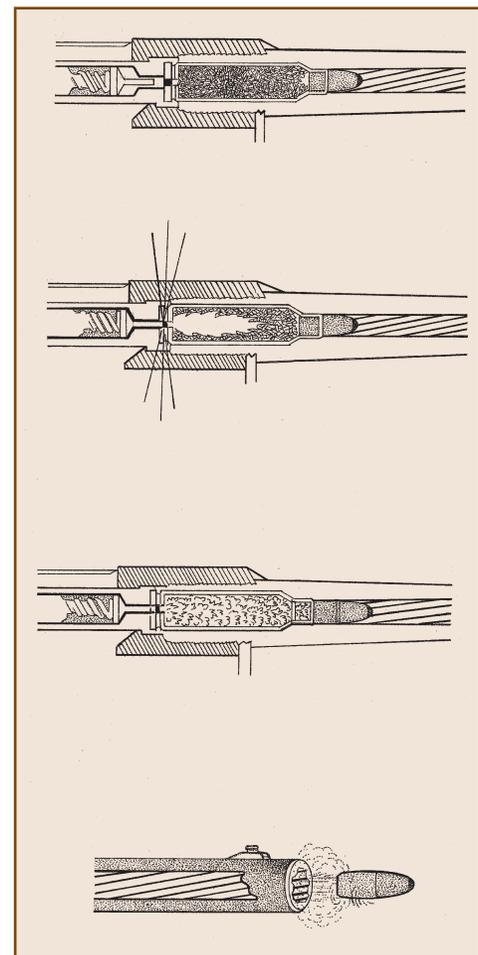
Ammunition for a rifle is called a **cartridge** and can be either rimfire or centerfire. **Rimfire** means that the primer that ignites the powder is located in the **rim** of the case. The most common rimfire is the .22 caliber. All high-powered rifle ammunition is centerfire. **Centerfire** gets its name from the fact that the primer is in the **center** of the rear of the case. Ammunition for a rifle is composed of the following four parts:

1. **Case**-The case is the metal tube that holds the primer, powder, and projectile. The case can have either a straight or tapered wall.
2. **Primer**- The primer explodes and ignites the powder when hit by the firing pin of the gun. The primer can be centerfire or rimfire. Rimfire means it is in the rim of the case.
3. **Powder**- Powder is the fuel that burns to create the pressure that propels the bullet.
4. **Projectile**-A projectile is the bullet that comes out of the muzzle. Bullets are made in many different types, depending on their purpose.

**Parts of a Rifle Cartridge**



**Firing Sequence**



To make sure that you have the proper ammunition for your rifle, find the caliber stamped on the barrel of the firearm. The caliber of the ammunition is stamped on the back of the case for centerfire ammunition. Rim-fire ammunition does not have the caliber stamped on the case. Instead, you must look on the box that held the ammunition.

The ammunition box is your best source of information for all ammunition. The ammunition box will show the caliber, type, and weight of the bullet. It is very important to match the type of bullet to your use, whether it is competitive shooting, hunting, or recreational shooting.



.22 Long Rifle Caliber



.243 Winchester Caliber



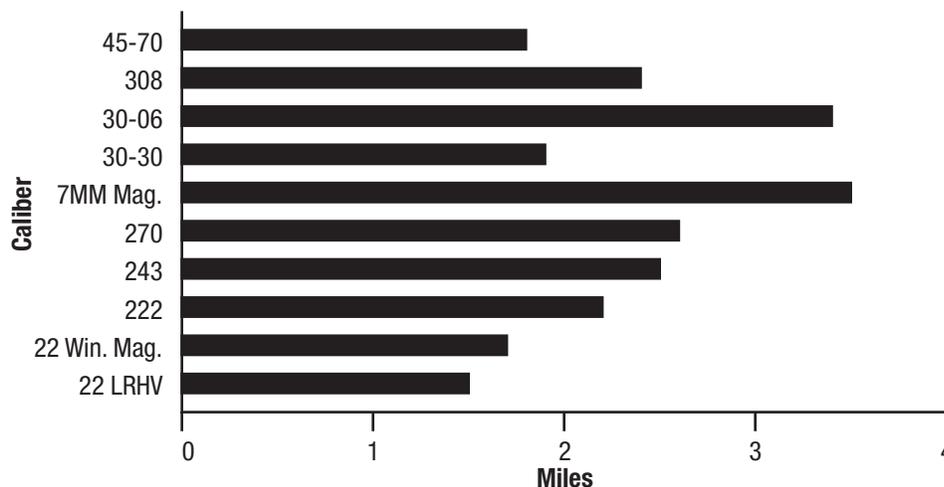
30-30 Winchester Caliber



**CAUTION:**

**WHEN TARGET SHOOTING OR HUNTING WITH A RIFLE YOU MUST ALWAYS PLAN ON WHERE THE BULLET WILL GO IF YOU MISS OR IT PASSES THROUGH YOUR INTENDED TARGET!**

### How Far Will a Rifle Shoot?



# Chapter 2 Review Questions

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1. Name the four primary rules of firearm safety. \_\_\_\_\_

\_\_\_\_\_

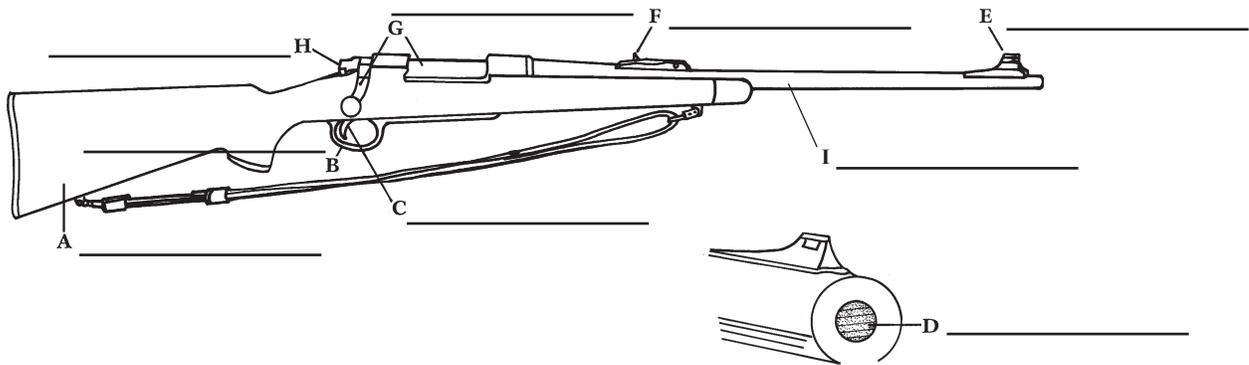
\_\_\_\_\_

\_\_\_\_\_

2. Name the three basic parts of a rifle. \_\_\_\_\_

\_\_\_\_\_

3. Label the following parts.



4. What is rifling and what does it do? \_\_\_\_\_

\_\_\_\_\_

5. Name the five types of rifle actions. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. Name the four different types of rifle sights. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Once a rifle's safety is "on" the gun can never fire a round. True or False.

# Chapter 2 Review Questions

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8. Name the two types of rifle ammunition and what is the main difference between them? \_\_\_\_\_

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9. Name the four main components of a rifle cartridge. \_\_\_\_\_

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10. Rifles are measured by \_\_\_\_\_. Where would you find this stamped on a rifle? \_\_\_\_\_

11. Ammunition used in a rifle is called a \_\_\_\_\_.

12. The cartridge's fuel that burns to create pressure that propels the projectile down the barrel is called the \_\_\_\_\_

---

13. The part of a cartridge that explodes and ignites the powder is called \_\_\_\_\_.

14. On centerfire ammunition, how can you match the caliber information between the rifle, cartridge, and the ammunition box to ensure that you have the correct ammunition?

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# Section I: Firearms

## Chapter 3: Handguns

STUDENT PERFORMANCE OBJECTIVES

In this section, the student should learn:

1. The four primary safety rules
2. The differences between a handgun and other firearms
3. The similarities between handguns and rifles
4. The four types of actions
5. To safely and legally use a holster
6. The difference between single-action and double-action revolvers

### Parts of a Revolver Handgun



### Parts of a Semi-automatic Handgun



### The Handgun

What is a handgun? A handgun, also known as a pistol, is simply a short rifle. The stock/grip is smaller and held in the hand, not against the shoulder. Like its parent, the rifle, the barrel has a **rifled bore**, or *spiral grooves cut on the inside of the barrel*. Because of the shorter barrel, the handgun is more of a challenge to aim with conventional sights. This requires more skill and more caution to control the muzzle direction. The shorter distance between

the front and rear sights makes it more difficult to shoot a handgun accurately.

### Safety First

The same four primary safety rules that apply to shotguns and rifles apply to handguns.

1. **Keep the muzzle pointed in a safe direction.**
2. **Treat every gun as if it is loaded.**
3. **Always be sure of your target and beyond.**
4. **Keep your finger off of the trigger until you are ready to fire.**

### HANDGUN KEY TERMS

action	rifled bore
cartridge	caliber
sights	rimfire
magazine	centerfire
safety	holster

Hinge Action  
Closed Open



Double Action Revolver  
Closed Open



Single Action Revolver



Cylinder



## Barrels

Handguns and their ammunition are identified by caliber, which is stamped on the barrel of the handgun. Handgun or pistol barrels are rifled to spin the bullet. This makes the bullet more accurate. Because handgun barrels are much shorter than rifles, it is very important to control the direction of the muzzle.



.357 Magnum Caliber

Bolt Action  
Closed Open



.45 Auto Caliber

Semi-automatic Action  
Closed Open



Magazine



## Actions

There are four basic types of **handgun actions**\*, (*the part that loads, fires, and unloads the firearm*). They are:

1. **Hinge**- This operates like the hinge on a door to open and close the action.
2. **Revolver**- The revolver gets its name from the rotating cylinder that holds the ammunition. In a revolver, the cylinder is the **magazine**, or the part of the

*repeating firearm that holds the ammunition until it is needed.*

Revolvers are sometimes referred to as a single action or double action. Single action means that you must manually draw the hammer back each time the gun is fired. Double action means that you can fire the gun just by pulling the trigger, which causes the cylinder to revolve and the hammer to rise and fall. You can also manually draw the hammer back to fire a double-action revolver.

3. **Bolt action**- The bolt-action handgun operates just like the bolt action on a rifle.
4. **Semi-automatic**- This type of action cycles and reloads one new cartridge by itself each time you pull the trigger. The ammunition is put into a magazine that is inserted into the grip of the gun.

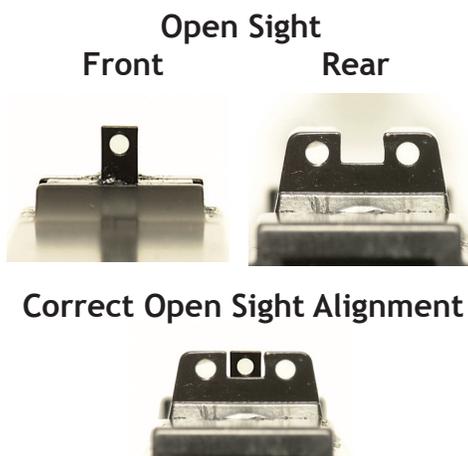
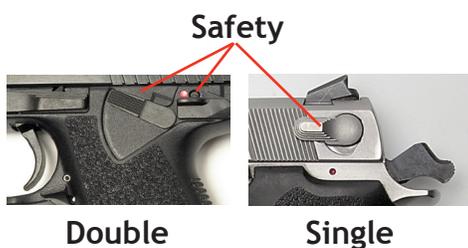
**\*IT IS NOT LEGAL TO HUNT WITH A FULLY AUTOMATIC FIREARM.**

## Stock/Grip

A handgun is really a short rifle, but it is more difficult to shoot accurately than a rifle. This is because the shooter must hold the stock/grip in the hand instead of braced against the shoulder. A handgun also has less distance between the front and rear sight, making accurate aiming much more difficult.

## Safety

**Safety** - The "safety" is a mechanical device that locks the trigger on the firearm to prevent pulling the trigger. **The firearm may still fire if it is dropped or otherwise jarred. Always keep the muzzle pointed in a safe direction.** Again, you must remember that the safety is a mechanical device and it may fail. Always remember and practice the four primary rules of gun safety, even when your safety is on. The safety on a handgun can be mounted in many different places. Read your gun's instruction manual or ask a knowledgeable person where the safety is located and how to operate it. Always keep the safety on until you are ready to fire. Remember some handguns do not have safeties therefore it is important to keep the muzzle pointed in a safe direction.



## Sights

**Sights** are devices that help the shooter to aim. Like a rifle, the sights found on a handgun can be open, peep, telescopic, or electronic.

## Ammunition

Ammunition for handguns is identified by caliber. **Caliber** is the diameter of the inside of the barrel. Ammunition for a handgun or rifle is called a **cartridge**, which can be either rimfire or centerfire. **Centerfire** gets its name from the fact that *the primer is in the center of the rear of the case*. Centerfire ammunition will have the caliber stamped on the case. **Rimfire** means that *the primer that ignites the powder is located in the rim of the case*. Only use the exact ammunition your handgun was designed to use. The ammunition box lists important information about caliber, powder charge, length of cartridge, and type of bullet.

## Main Components of Handgun Ammunition:

1. **Case**- The case is the metal tube that holds the primer, powder, and projectile. The case can have either a straight or tapered wall.
2. **Primer** -The primer ignites the powder when hit by the

## Handgun Ammunition Rimfire Centerfire



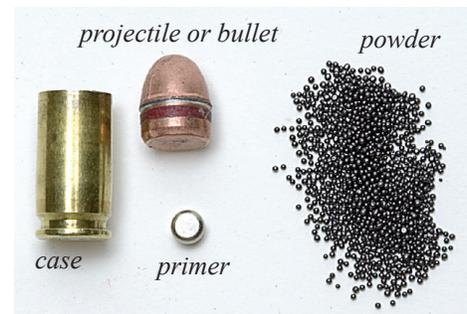
## Projectiles Lead Jacketed



firing pin. The primer can be centerfire or rimfire.

3. **Powder** - powder is the fuel that burns to create the pressure that propels the projectile.
4. **Projectile**-This is the bullet that comes out of the muzzle of the firearm when it is fired. Bullets are made of many different types, depending on their purpose.

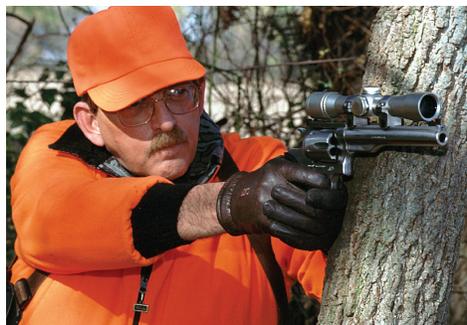
## Parts of a Handgun Cartridge



## Holsters

A **holster** is a carrier that allows a handgun to be carried for safe, easy access. There are two commonly used holsters: the hip holster and the shoulder holster.

### Handgun Holsters



## CARRY CONCEALED WEAPONS

The concealed handgun license issued per Ohio Revised Code sections 2923.123 and 2923.125 allows you to carry a handgun concealed in Ohio. This includes while in the act of hunting, as regulated per Ohio Revised Code 1531.02

### HUNTERS WITH A CONCEALED HANDGUN LICENSE MAY:

- Carry a concealed handgun while training or working dogs for furbearers during the closed season.
- Carry more than one firearm while deer hunting; as long as one meets the requirements for the concealed handgun license.
- Carry a concealed handgun while hunting during the deer archery season.
- Carry a concealed handgun while hunting deer during the special area muzzleloader season and the statewide muzzleloader season.
- Carry a concealed handgun during the spring and fall turkey seasons.

### HUNTERS WITH A CONCEALED HANDGUN LICENSE MAY NOT:

- Hunt a wild animal with a handgun carried under the concealed carry license.
- Carry concealed their hunting implement: the hunting implement must be worn on the outermost garment.

**IF YOU ARE CARRYING A CONCEALED HANDGUN AND ARE STOPPED BY A WILDLIFE OFFICER, OHIO LAW REQUIRES YOU TO ANNOUNCE TO THE OFFICER THAT YOU ARE A CONCEALED HANDGUN LICENSE HOLDER AND ARE CARRYING YOUR HANDGUN.**

# Chapter 3 Review Questions

---

1. Name the four primary safety rules for handguns. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Why do handguns require extra caution when controlling the direction of the muzzle? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. What is the main similarity between a rifle and a pistol barrel? What is the main difference? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Identify the four types of handgun actions. \_\_\_\_\_  
\_\_\_\_\_
5. The type of revolver that must be manually cocked for each shot is called a \_\_\_\_\_ revolver.
6. The type of revolver that can be fired either by manually cocking the hammer for each shot or just by squeezing the trigger is called a \_\_\_\_\_ revolver.
7. A bolt action handgun works essentially the same way that a bolt action rifle does? True or False
8. The type of ammunition a handgun uses is called a \_\_\_\_\_.
9. List the four main components of a handgun's cartridge. \_\_\_\_\_  
\_\_\_\_\_
10. What ammunition information is found on the barrel of a handgun, on the case of a centerfire cartridge,  
and on the ammunition box? \_\_\_\_\_  
\_\_\_\_\_
11. What is the legal way to carry a handgun while hunting? \_\_\_\_\_

# Section I: Firearms

## Chapter 4: Muzzleloaders

### STUDENT PERFORMANCE OBJECTIVES

In this section, the student should learn:

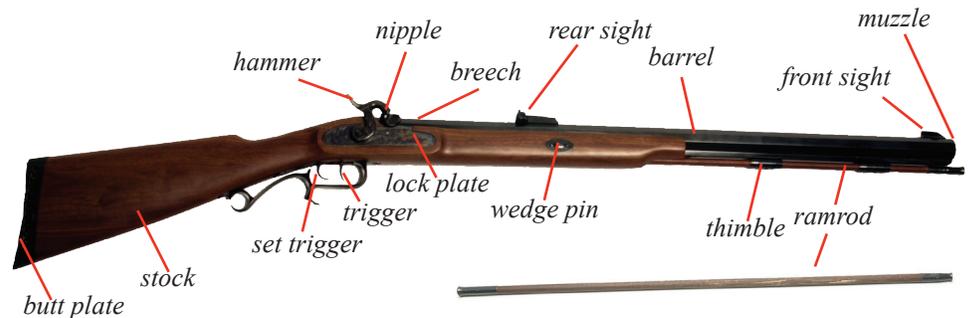
1. The differences between muzzleloaders and other firearms
2. The three common actions of a muzzleloader and how they work
3. The different grades or types of blackpowder, and which firearms they are used in
4. The name of common projectiles used in muzzle-loading firearms
5. The importance of understanding the owner's manual

### Safety First

The same four primary safety rules that apply to shotguns, rifles, and handguns also apply to muzzleloaders.

1. **Keep the muzzle pointed in a safe direction.**
2. **Treat every gun as if it is loaded.**
3. **Always be sure of your target and beyond.**
4. **Keep your finger off of the trigger until you are ready to fire.**

### Parts of a Percussion Cap Muzzleloader



### Muzzleloading

Muzzleloaders are a very early type of firearm. Our forefathers used this type of firearm in many of our country's early wars, such as the Revolutionary War.

Today, the use of muzzleloading rifles for hunting or target shooting is a rapidly growing sport. Other muzzleloader owners enjoy gun collecting or gun building.

Because of the time and difficulty of loading the projectile, hunting with muzzleloaders emphasizes the value of the first shot, which may be the hunter's only shot at any single target. There are many differences between modern firearms and muzzleloaders; you must spend time learning how to use them safely.



### MUZZLELOADING KEY TERMS

- Flintlock
- In-line Percussion
- Flint
- Frizzen
- Touchhole
- Percussion Cap
- Blackpowder
- Lock or action
- Set Trigger
- Nipple
- Ball Starter
- Ramrod
- Capper

## What is a Muzzleloader?

Until now all the firearms we have discussed were breechloaders. These firearms are loaded through their actions. Early firearms were loaded by pouring a measured charge of powder and a bullet or shot into the front end of the barrel, or the muzzle end. These early firearms are called muzzleloaders.

The two basic types of muzzleloaders used today are the sidelocks and in-lines. The ham-

mer is on the side of the barrel of a sidelock. An in-line has the firing pin or hammer in-line with the barrel.

## Parts of a Muzzleloader

Like modern firearms, the three main parts of a muzzleloader are:

1. Barrel
2. **Lock or action** (the firing assembly)
3. Stock

## Types of Muzzleloaders

### Flintlock

The **flint**, or sharp-edged piece of stone, is held in the jaws of the hammer. When you squeeze the trigger, the hammer falls causing the flint to strike



against a steel plate called a **frizzen**. The frizzen then moves forward, uncovering the priming pan. Sparks created by the flint striking the frizzen ignite the powder in the priming pan. The burning priming powder sends a spark through the **touchhole**, a small hole in the side of the barrel that allows a small flame through, lighting the main powder charge.

## Percussion Cap

This type of firearm uses a priming cap that is placed on



the **nipple**, a part of the barrel that holds the percussion cap. When the trigger is pulled, the hammer hits the cap sending a spark through the nipple lighting the main powder charge.

## In-line Percussion

This firearm uses the same ignition system as the percussion



cap firearm. The only difference is that in an **in-line percussion ignition system**, the hammer and nipple are **in-line** with the barrel and powder charge.

## Muzzleloading Shotgun

Muzzleloading shotguns use the same ignition system as rifles, but the barrel has no rifling and is identified by gauge instead of caliber. It fires shot like a modern shotgun, but is loaded through the muzzle. Muzzleloading shotguns use a card and a wad of felt over the powder to cushion the shot and provide a

### Nipples and Caps

No. 11 Musket 209 Primer



### Capper





ramrod

more even shot pattern. Another card is placed over the shot to hold it in place. Muzzleloading shotguns are available in both sidelock and in-line designs.

## Safety

You can find the safety on an in-line muzzleloader on the breech end of the barrel or next to the trigger guard, just like on modern rifles. The “half cock” position on flintlock or percussion cap muzzleloaders is designed to act as a safety. Because the safety lock is merely a mechanical device and may fail, you should place more trust in your training and safety habits.

When crossing a fence or other obstruction, you should remove the cap or empty the priming pan on a flintlock for safety. Unload at the end of the hunting day or before entering your vehicle or house.

## Sights

Muzzleloaders use the same sighting systems as modern firearms. They are open sights, peep sights, telescopic, and electronic.

## Trigger

The trigger is a mechanical device that releases the hammer. Some muzzleloaders have two triggers, a firing trigger and a **set trigger**. *Set triggers allow the firing trigger to be pulled with a light force, designed for target shooting.* Be careful when using this kind of trigger for hunting!

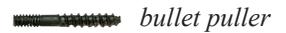
## Stock

The **stock** is the part that you use to point or aim the firearm. It consists of two main parts: the butt which is held against the shoulder and the forestock, or forend, which is the section under the barrel.

## Barrel

The **barrel** is a tube extending from the action that the bullet or shot passes through when a firearm is fired. Rifle barrels have spiral grooves cut in them to spin the bullet, but the bore of a muzzleloading shotgun is smooth.

ramrod extension



bullet puller



bullet puller



patch puller



cleaning jag



thread adapter

bronze brush



bore swab



## Ramrod

A **ramrod** is a long rod used to push the ball against the powder. The ramrod should be marked by placing it in the barrel before the firearm is loaded. Mark the rod with a permanent line to record its position when the gun is unloaded. This will help determine if the muzzleloader is loaded or unloaded. This also will reveal if there is an obstruction in the barrel.

After loading the muzzleloader, you should place the ramrod in the barrel again and rest it against the full load. Mark the ramrod to show the level of a full load in your muzzleloader. Making sure there is a full load each time will ensure that the muzzleloader fires properly.

## Black powder

**Black powder** is the fuel that drives the projectile. Only black powder or an approved substitute may be used in a muzzleloader. **NEVER USE MODERN, SMOKELESS POWDER BECAUSE IT CREATES TOO MUCH PRESSURE AND MAY CAUSE THE FIREARM TO EXPLODE. BLACK POWDER EXPLODES. SMOKELESS POWDER BURNS.** There are many modern black powder substitutes including pellets that can be used in place of black powder; consult the owner's manual for your particular muzzleloader.

## Grades of Black powder

1. **Fg** is the coarsest. Use it in large bore muskets.
2. **FFg** is not as coarse as Fg. It is used in big-bore rifles, muzzleloading shotguns, and single-shot pistols .45 caliber and larger.
3. **FFFg** is finer and is commonly used in nearly all cap-and-ball revolvers and rifles smaller than .45 caliber.
4. **FFFFg** is the most fine. It is used **ONLY** in the priming pan of flintlocks.

**W A R N I N G !**  
Never exceed the manufacturer's recommended maximum powder charge for your particular firearm.

5. **Black Powder Substitutes and Pellets** consult your owner's manual to determine if these are appropriate for your muzzleloader.

## Projectiles

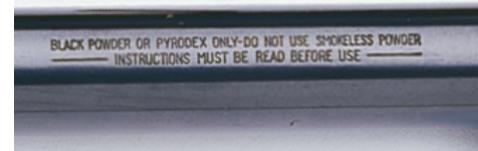
Muzzleloading rifles use three types of projectiles.

1. The **round ball** that is always loaded with a patch.
2. The **maxi ball**, a conical bullet that has lube applied to seal the gas pressure.
3. The **sabot**, which uses a modern bullet surrounded by a plastic sleeve to provide a gas seal.

## Loading a Muzzleloader

Always read and follow the manufacturer's recommendations when loading your firearm, and remember that moderate loads are usually more accurate. Always use a powder measure to load a muzzleloader. **Never pour powder from a powder container, flask, or powder horn, directly into the barrel.** A hot ember could still be in the barrel, and pouring too much powder in could cause an explosion, leading to serious injury.

## Muzzleloader Barrel Use Black Powder or Appropriate Substitute ONLY



## Black Powder      Black Powder Substitute



## Black Powder Substitute Pellets



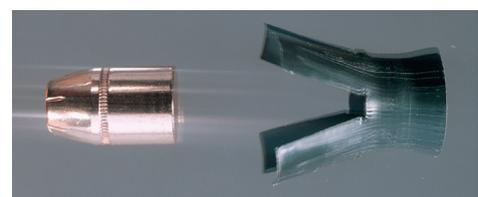
## Powder Measure



## Muzzleloader Projectiles Round ball & Maxi ball Cloth Patch



## Bullet and Sabot



## Why Didn't it Fire?

If the muzzleloader fails to fire when the trigger is pulled, keep the muzzle pointed in a safe direction, wait one minute, and then remove the cap from the nipple. Run a nipple pick through the nipple to clear it. Re-seat the projectile with your ramrod and try another cap. If it still does not fire, a CO<sub>2</sub> discharge device may be used to clear the barrel. This device is much safer than pulling the projectile with a ball puller.

## Safe Shooting

1. Always point the muzzle in a safe direction.
2. Treat every gun as if it were loaded.
3. Be sure of you target and beyond.
4. Keep your finger off of the trigger until you are ready to fire.
5. Match the ball and patch to your firearm.
6. Know where your companions, bystanders, and other shooters are.
7. Never smoke while loading and shooting black powder.
8. Know how your firearm operates.
9. Make sure your firearms are unloaded while at home, while transporting, and in the camp.
10. Never drink alcohol or take drugs while shooting or hunting.
11. Never blow down the barrel of a muzzleloader.

12. Never pour powder directly from a flask into the barrel.

## Possibles Bag

Many muzzleloaders use a “possibles bag.” This is a collection of equipment for safe operation and field maintenance. It may include:

- ✓ **Ball starter:** *allows the ball to be started down the barrel before using the ramrod*
- ✓ **Capper:** *allows a percussion cap to be easily placed on the nipple*
- ✓ Nipple pick
- ✓ Cleaning jag
- ✓ Powder flask(s)
- ✓ Powder measure
- ✓ Nipple wrench
- ✓ Balls or shot
- ✓ Lube
- ✓ Spare flint
- ✓ Extra caps
- ✓ Patch knife
- ✓ Loading block
- ✓ Patches or cards and wads



**REMEMBER:**  
If you shoot the firearm you must clean it.  
Black powder and substitutes are corrosive.

## Possibles Bag



## Components of a Possibles Bag



# Chapter 4 Review Questions

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1. Describe the main difference between muzzleloaders and other firearms. \_\_\_\_\_

\_\_\_\_\_

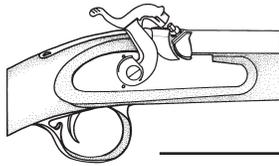
2. Name the three main parts of a muzzleloader. \_\_\_\_\_

\_\_\_\_\_

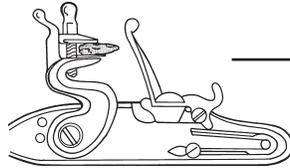
3. Name the three types of common muzzleloader actions. \_\_\_\_\_

\_\_\_\_\_

4. Identify these two types of muzzleloader actions.



\_\_\_\_\_



\_\_\_\_\_

5. A steel plate on a flintlock that produces sparks after being struck by the flint on the hammer is called?

\_\_\_\_\_

6. A small hole in the side of the barrel on a flintlock that allows a small flame through to explode the powder is a \_\_\_\_\_

\_\_\_\_\_

7. Why is it important to mark your ramrod with an empty barrel and with a loaded barrel? \_\_\_\_\_

\_\_\_\_\_

8. What is the only safe powder type to be used in a muzzleloader? Why? \_\_\_\_\_

\_\_\_\_\_

9. Name the three common types of muzzleloader projectiles and describe their differences. \_\_\_\_\_

\_\_\_\_\_

10. Why should you read the owner's manual and follow the manufacturer's recommendations before loading a muzzleloader? \_\_\_\_\_

\_\_\_\_\_

11. You should always use a \_\_\_\_\_ to pour powder into the barrel. Why?

\_\_\_\_\_

# Section 2: Archery

## Chapter 5: Archery and Bowhunting

### STUDENT PERFORMANCE OBJECTIVES

In this section, the student should learn:

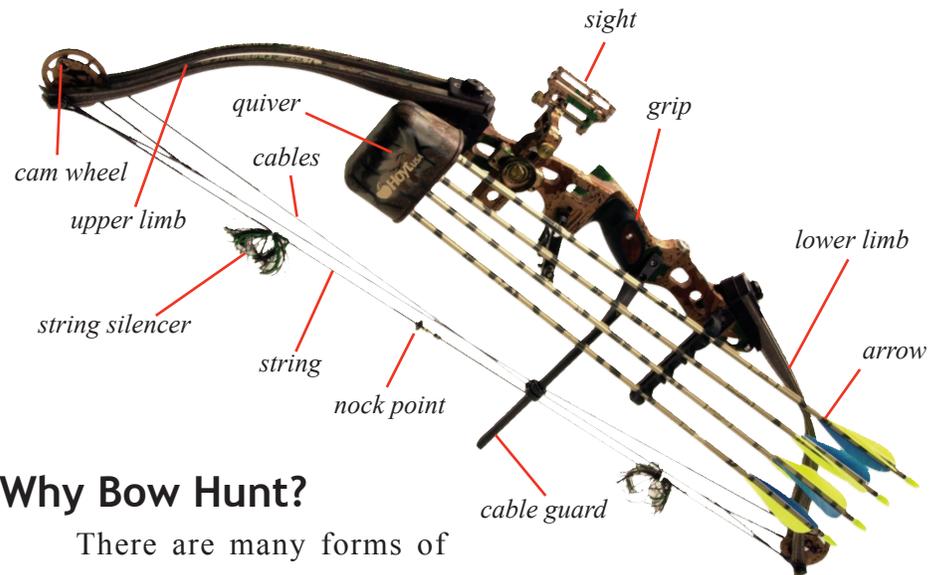
1. To identify the differences between the four types of bows
2. Why it is unsafe to use damaged arrows
3. Why arrows should always be carried in a quiver with the points covered
4. Why is it important for bow hunters to practice their shooting

### Safety First

Bow safety rules are just as important as firearm safety rules. Remember the four basic rules of firearm (archery) safety.

1. **Keep the arrow pointed in a safe direction.**
2. **Never point a bow and arrow playfully or otherwise at anyone or anything you are not willing to shoot.**
3. **Always be sure of your target and beyond.**
4. **Don't draw an arrow until you are ready to shoot.**

### Parts of a Compound Bow



### Why Bow Hunt?

There are many forms of archery. Some examples are competitive shooting, big-game hunting, and bow fishing.

Bow hunters enjoy some advantages. Bow hunters benefit from longer seasons and may also enjoy longer daily hunting hours when hunting deer. The bow hunter usually has a better opportunity to observe wildlife at close range.

Discipline, patience, and practice produce the skills needed to safely and accurately shoot a bow. Bow hunting requires that the archer be positioned within close range of game. The archer must also understand the nature and anatomy of the ani-

mal for proper shot placement. To be a successful bow hunter, the archer should understand

### BOWHUNTING KEY TERMS

Longbow/Recurve  
Crossbow  
Compound bow  
Draw weight  
Fletching  
Arrow  
Shaft  
Nock  
Broadhead  
Field Point  
Draw length  
Quiver  
Sights  
Safety (crossbow)

many things about the use of a bow, including **draw weight**, the *poundage or strength it takes to pull the bow back in order to shoot*, and the **draw length**, the *measurement it takes to pull the string to full draw*.

## Types of Archery Equipment

There are three basic types of bows: the longbow, (which includes the traditional **longbow** and the **recurve bow**), the **compound bow**, and the **crossbow**.

### Longbow/Recurve Bow

The longbow and the recurve bow are very similar in design and function. These bows have the fewest moving parts. The **longbow**, a *hand-drawn wooden bow*, is the earliest type of bow and is often referred to as the *traditional bow*. The **recurve bow** is a variation of the longbow with limbs that curve backwards. The term **recurve** means a reverse curvature near the tips of the limbs.

### Compound Bow

The compound bow is more complex than the longbow. The **compound bow**, *uses a system of cams or pulleys, cables, and*

*the bowstring to shoot the arrow.* The bow may include either a single- or double-cam design.

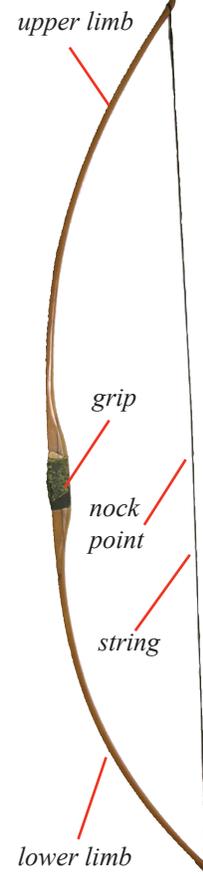
The purpose of the cams is to increase the effective draw weight of the bow, while allowing the archer to hold less draw weight when at the full draw length. Because all of the cams, cables, and strings must work together to function properly, close attention must be given to the setup and tuning of the compound bow.

The compound bow must be closely matched with each individual archer for proper fit. An archer with a properly fitted compound bow will benefit from the advantages of less draw weight, improved arrow speed, and the ability to add sights and quivers to the bow. The limbs are attached to the riser (handle) with large mounting bolts that can be adjusted to increase or decrease the draw weight of the bow.

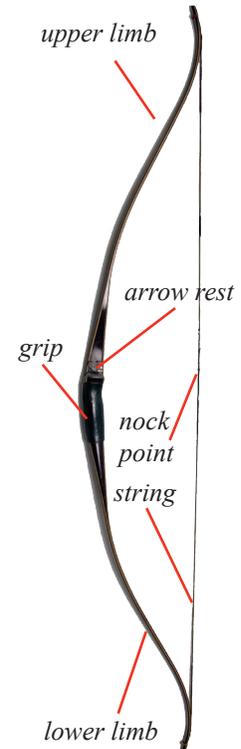
### Crossbows

A crossbow is a style of bow widely used by hunters in Ohio. A crossbow may have straight limbs or have a compound design with limbs mounted horizontally on a stock. Crossbows use shorter arrows that are fired with a release mechanism or trigger. The release mechanism normally

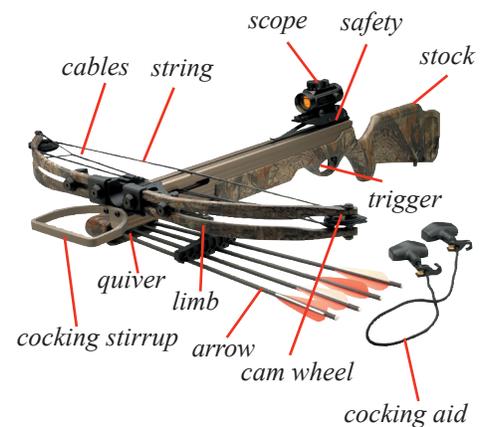
### Parts of a Longbow



### Parts of a Recurve Bow

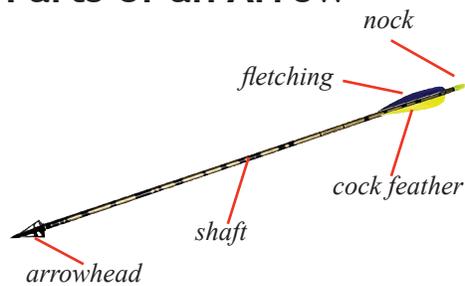


### Parts of a Crossbow



includes a safety that blocks the pulling of the trigger. **The effective range of a crossbow is no greater than that of any other bow.**

## Parts of an Arrow



nocks



Broadheads  
fixed blades    movable blades



wrench



sharpener



other arrow points



judo point



quiver



## Arrows

An **arrow** is a slender shaft, or projectile, shot from a bow or crossbow. Arrows have four main parts: **nock**, **fletching**, **shaft**, and **arrowhead**. The **nock** is located at the back of the arrow and is attached to the bowstring. The **shaft** is the main body of the arrow. A shaft may be made of wood, aluminum, carbon fiber, or other materials. **Fletchings** are located on the shaft and provide stability for the arrow. Fletchings may be made of vinyl, rubber, or feathers and are designed to stabilize the arrow in flight to make it more accurate.

Arrows used in crossbows have three main parts: **fletching**, **shaft**, and **arrowhead**.

Arrowheads must be securely attached to the arrow. Two common types of arrowheads are field points and broadheads. **Field points** are small arrow tips generally used for target shooting, while **broadheads** are razor-sharp arrow tips used for hunting big game.

Broadheads come in many different types, sizes, designs, and weights. Since they must be kept razor sharp for proper performance, extreme care must be used when handling them. For safety, always use a broadhead wrench to attach the broadhead to the shaft.

## Sights

Modern bows have a wide variety of sights. The most common is a pin sight that is attached to the handle or grip called a riser. Some archers also add a **peep sight** to the bowstring. Others prefer to use the more traditional method of shooting without sights. This is called **instinctive shooting**. Crossbows may also be fitted with various types of sights, including **telescopic** or **electronic**. Various electronic sites are available for longbows and crossbows. **Remember electronic sights that project a beam of light onto the game are illegal for bow hunting deer.**

## Safety Equipment

Before using a bow, the shooter must have the proper safety equipment. For example, the shooter must always wear an **arm guard** on the arm holding the bow. The shooter should also use finger tabs, shooting gloves, or a mechanical release on the hand pulling the string. Women may want to also wear a chest protector to avoid being injured when the bowstring is released. Few things are more painful than having your skin struck by a released bowstring!

No matter what type of bow you select, you should always carry your arrows in a covered **quiver**, or a device that holds

arrows. A quiver will protect the bow hunter from the arrows' sharp points. Quivers come in many styles, including some that are mounted on the bow, worn on a belt, or fit over the shoulder. It is important to always use a quiver whether you are using field points or broadheads.

## Shooting a Bow

Shooting a bow may appear to be a simple process to an observer. Actually, it takes much dedication and practice to master the skills needed to consistently and accurately hit a target. For a bow hunter accuracy is critical to ensure a quick humane kill.

## Optional equipment

Optional bow equipment includes silencers and stabilizers. Silencers attach to the bowstring and prevent the vibrating string from making noise when the arrow is released. Generally, a stabilizer is a weighted device that attaches to the riser of the bow. Stabilizers are used to help balance the weight of the bow in the shooter's hand.

## Bow Fishing

Bow fishing equipment consists of a reel and line attached to a bow. The line is connected to a barbed arrow.

## Special Safety Concerns

The archer or bow hunter should **always** use arm guards, finger protection, or mechanical release when shooting a bow.

1. Never **dry fire** any bow, which means *to draw the bow back without an arrow and release the string*. This may cause damage to the bow and possibly injure the shooter and bystanders.
2. Inspect the bow on a regular basis. Check limbs, strings, pulleys, grips, riser, and all connections. Worn or frayed bowstrings, regardless of the type of bow, should be immediately replaced. Have the bow repaired by a professional if there is any damage or excessive wear.
3. Check the condition of the arrows. **Any bent, cracked, or warped arrows should be immediately destroyed to prevent them from being used by mistake.** The best way to destroy an arrow is to carefully break or saw it in half.
4. Arrows should be safely stored in a covered quiver.
5. Always use a **broadhead wrench** to install and remove broadheads from arrows. This is an important safety device to prevent injury when installing or removing broadheads.
6. A bowstringer is a safety device used to string a recurve bow. Serious injury can result from trying to string a recurve bow without this device.

Protective equipment  
finger tabs      glove



mechanical release



arm guards



Bow fishing equipment



## Archery Accessories

An **accessory box** is used to carry tools and supplies such as broadhead wrenches, Allen wrenches, spare broadheads, or field points for arrows.

Here are **some** things you may want to carry in your accessory box:

Broadheads	Mechanical releases
Broadhead wrench	Arm guards
Field points	Silencers
Fletchings	Stabilizers
	Finger tabs

# Chapter 5 Review Questions

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1. Bow safety rules are just as important as firearm safety rules. True or False
2. List the four primary bow safety rules. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. The poundage or strength it takes to pull the bow back in order to shoot is called the \_\_\_\_\_.
4. List the three basic types of bows and explain their differences. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. A crossbow has a much greater effective range than any other bow type. True or False
6. Identify the four main parts of an arrow. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. A razor sharp arrow tip used for hunting big game is a \_\_\_\_\_
8. What is the proper way to carry your arrows? \_\_\_\_\_  
\_\_\_\_\_
9. Dry firing a bow is a safe practice. True or False
10. It is OK to shoot an arrow that is slightly bent, cracked, or warped. True or False
11. Why is it important for bow hunters to practice? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Section 3: Being A Hunter

## Chapter 6: Hunter Safety

### In this section, the student should learn:

1. Hunter safety is an “attitude of safety”
2. Hunter orange is the most effective visual safety device
3. The proper method of transporting a firearm
4. Hunting with others requires careful planning and safety considerations
5. The importance of a safety harness when using an elevated platform
6. How to safely cross a fence while hunting
7. The proper storage method for guns and ammunition

### Hunter Safety

Hunter safety is not about warning labels and lists of do’s and don’ts; it is an “attitude of safety.” Hunter safety is the way we handle firearms and archery equipment at all times. Hunter safety leads to confidence that when a firearm or bow is discharged, the game or target will be safely hit without danger to the shooter or others.

Hunting injuries are often a result of carelessness, ignorance, or a disregard for safety rules or laws. The following safety rules have continually protected hunters and their companions year after year. These rules need to stay foremost in the mind of every hunter. Ignoring these rules may lead to a hunting incident that will be forever regretted.

### Ten Commandments

The following are the Ten Commandments of Firearm Safety.

1. **Treat every gun as if it was loaded.** Every time a gun is handled, check to make sure that the gun is empty of shells or cartridges. Always assume the gun has the ability to load itself.
2. **Always point the muzzle in a safe direction.** No one should ever see the muzzle end of your gun! An experienced hunter is always aware of the safe direction to point the gun’s muzzle and would not hunt with anyone who does not do likewise.
3. **Be sure of your target and beyond.** A safe hunter would never take aim at a sound, movement, or flash of color. A safe shot is taken at a positively identified target against a clear, safe background.
4. **Never point a gun at anything you don’t want to shoot.** Avoid all horseplay with a firearm.
5. **Unload guns when not in use.** Have the actions open to ensure that a gun is not loaded. Guns should be carried in cases to the shooting area.
6. **Store guns and ammunition separately.** Store in a place where the guns are out of reach of children or careless adults.
7. **Be sure the barrel and action are clear of obstructions.** Only carry ammunition for the gun you are carrying and the game you are hunting.

### HUNTER SAFETY KEY TERMS

Hunter orange  
Safe shooting zones  
Drivers  
Standers  
Safety harness  
Haul line

**8. Never climb a fence or tree, cross a log or a stream, or jump a ditch with a loaded gun.**

**9. Never shoot a bullet at a flat, hard surface or water.** When target practicing, be sure your backstop is adequate.

**10. Never use alcoholic beverages or drugs when handling a firearm.** Alcohol or drugs should not be used before or during the hunt, or when cleaning a gun. Always be fully alert and in control.

## Transporting Firearms

A firearm transported in a vehicle must be unloaded and either cased or racked in plain sight. Always check hunting and motor vehicle regulations when preparing to transport your gun. For example, a muzzleloader is considered unloaded if the percussion cap is removed or if the priming pan is empty (flintlocks).



Additional transporting considerations are:

**ATV-** Guns should be kept unloaded and secured in a scabbard or holder designed for this use. Protecting the gun from damage and the weather is essential.

**Boating-** Never put a loaded gun on the bottom of a moving boat, especially when dogs are aboard. Before getting into the boat, unload and open the action. Secure your gun in a case to protect it from the motion of the boat.

## Storage

Proper storage of a gun is as important as how you handle it. Proper storage protects against misuse or damage.

In addition, it is important to store firearms and ammunition separately to prevent unauthorized access to both the gun and ammunition. Ideally, the guns should be stored in a locked gun cabinet or gun safe.

Even though the gun is locked away, educating non-hunting members of the family is often more safe and effective than hiding the gun away.



**Trigger locks, cable locks, and locking gun cabinets are all good ways to keep children and other people from using your firearms without your knowledge or permission!**



## Cleaning Your Gun

To assure that your gun is always in good working condition and safe to shoot, it should be cleaned every time you handle it. All metal parts should be wiped with an oily rag. If not, the natural, salty oils in your skin **will** cause the gun to rust.

Any time you shoot your gun, it must be thoroughly cleaned, especially the bore. This is true whether it is a rifle, shotgun, or handgun. Follow these simple steps to clean your gun:

1. **Make sure the gun is unloaded and the action is open.**
2. Put a cloth patch on the cleaning rod and dampen with a bore-cleaning solvent.
3. Run patch down the barrel and let set for a couple of minutes.
4. Put the proper size cleaning brush on the rod and brush bore several times.
5. Put a clean, dry patch on the rod and wipe the bore.
6. Repeat the above steps until wiping patches are clean.
7. When the bore is clean, wipe with a clean patch that is lightly oiled.
8. Wipe all exterior metal with an oiled rag.

If possible, always clean your rifle from the breech end of the barrel. If you must clean from the muzzle of the gun, be sure that you use a muzzle guard to protect the rifling. Always use good gun oil, and use it sparingly.

## Cleaning a Gun



1. Make sure the gun is unloaded and the action is open.



2. Put a cloth patch on the cleaning rod and dampen with a bore-cleaning solvent.



3. Run patch down the barrel and let set for a couple of minutes



4. Put the proper size cleaning brush on the rod and brush bore several times.



5. Put a clean, dry patch on the rod and wipe the bore.



6. Repeat the above steps until wiping patches are clean.



7. When the bore is clean, wipe with a clean patch that is lightly oiled.



8. Wipe all exterior metal with an oiled rag.

## Safety In the Field

Expectation and excitement are as much a part of hunting as any other sport. However, when excitement overpowers caution and safety, a well-planned hunt can quickly lead to injury or death. A few precautions will keep a well-planned hunt on track.

## Hunter Orange

Hunters are responsible for themselves, as well as other hunters, landowners, and other people that might be outdoors, such as hikers. For most species of game hunting, hunters should wear **hunter orange**, also called blaze orange. This is particularly important when transporting game. Ohio has strict regulations for wearing hunter orange during



*Hunter orange makes you visible to others!*



any deer gun hunting seasons, so always check the appropriate regulations before going out in the field.

Hunter orange is effective as a safety precaution because it is a color that is not found in nature, and does not blend with any other color found in the field. Hunter orange also shows up well at dawn and dusk.

Colors to **avoid** for certain hunting seasons are:

**Turkey hunting season-** Red, black, blue, white, or only a small patch of hunter orange

**Deer hunting season-** Brown, tan, and white. Brown or tan overalls should be avoided unless covered with hunter orange.

Inexperienced hunters are often concerned that deer may see the hunter orange as easily as humans do. In fact, deer are colorblind and cannot see hunter orange or any other color. Instead, deer rely on their keen senses to detect sound, motion, and scent.



*Notice how well the boy's pants match the deer's coloring.*



*Avoid wearing clothing that is colored the same as the turkey's natural coloring.*



*Deer are color blind - compare this photo with the same photo on page 23.*

## Safe Gun Carries

Appropriate gun carries provide a safe way to carry your firearm for:

- Ready use when in the field
- Rest on long carries in the field
- Protection of your firearm when crossing difficult terrain
- “Muzzle awareness” when hunting with a friend.

Six common safe gun carries are:

The **two handed, or field carry**, is the best for ready use and muzzle awareness in the field.

The **cradle carry** is a resting carry that provides good firearm protection and muzzle awareness in the field.

The **shoulder carry** is a ready use or resting carry that provides good muzzle awareness. This carry should not be used when there are people behind you.

The **elbow carry** is a resting carry that provides good muzzle awareness when fellow hunters are by your side.

The **sling carry** is a resting carry that provides comfort on long walks. Never cross an obstacle using a sling carry.

The **trail carry** is the least ready carry. This carry should never be used when walking behind other hunters.



*Two handed or field carry*



*Shoulder carry*



*Sling carry*



*Cradle carry*



*Elbow carry*



*Trail carry*



## Crossing Obstacles

The crossing of fences is a common obstacle in the field. When crossing fences, three factors must be considered: respect for the landowner, safe gun handling, and the age and condition of the fences.

The safest way to pass a gun through a fence is to open the action, unload it, and then pass it to a companion on the other side.

Always point the muzzle in a safe direction when passing a firearm through or under a fence.

When crossing a fence by yourself **1.** Unload the firearm leaving the action open. **2.** Place your firearm on the ground and pass it under and through the fence, to the other side. **3.** Cross the fence at a strong fence post, a safe distance from where your firearm is lying. **4.** Keep the muzzle pointed in a safe direction, pick up your firearm.

After using any of these methods, quickly check the barrel (**before loading!**) for obstructions.

## Cross That Fence Safely

*Take the time to unload your gun*



*Pass the unloaded gun under or over*



*Cross at a strong or secure post*



*Resume the hunt*



## Safe Shooting Zones



## Hunting with Companions

When a hunt is carefully planned, hunting with friends and family will provide many cherished memories. A carefully planned hunt always starts before entering the field. Always remember to “**plan your hunt and hunt your plan.**” Here are some things to consider when preparing a hunt plan:

**Safe Shooting Zones-** Zones of fire provide a safe area for firing when multiple hunters are crossing a field. Maintain an even line with straightaway shots given to the hunter whose zone the game enters.

A crossing shot, however, requires that each hunter know the limits of his zone. A bird that flies between or behind a line of hunters will be one of many shots not taken for safety’s sake. Swinging a gun out of your zone of fire and placing a companion in your line of fire is something that should never happen.

**Deer Drives** are effective but are potentially dangerous. If you are going to conduct a deer drive, it is important that the drive be properly planned and that the plan be carried out by **all** who participate. Drives with more than six or seven hunters should be avoided because of increased risk.

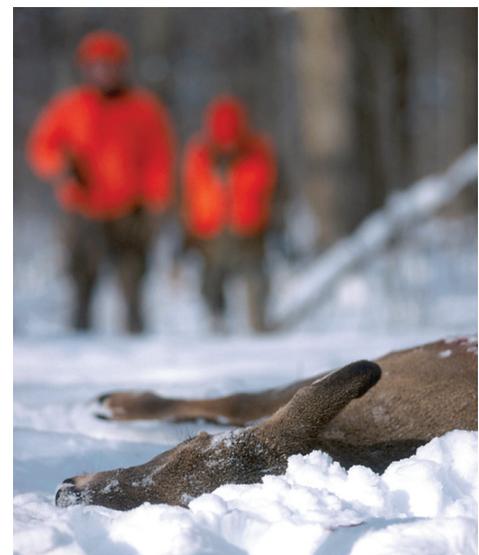
The first priority is to have a competent leader that is familiar with the area where the drive will take place. The leader is responsible for the safety of all the hunters and the hunters should listen to his/her instructions. **All of the hunters should wear plenty of hunter orange!**

The leader will assign the “**drivers,**” or those who will walk, to drive the deer in front of them. The leader will also assign the “drivers” direction of movement. The “drivers” force the deer to move in the direction of the “**standers,**” or those who stand ready to shoot the deer when they move past them.

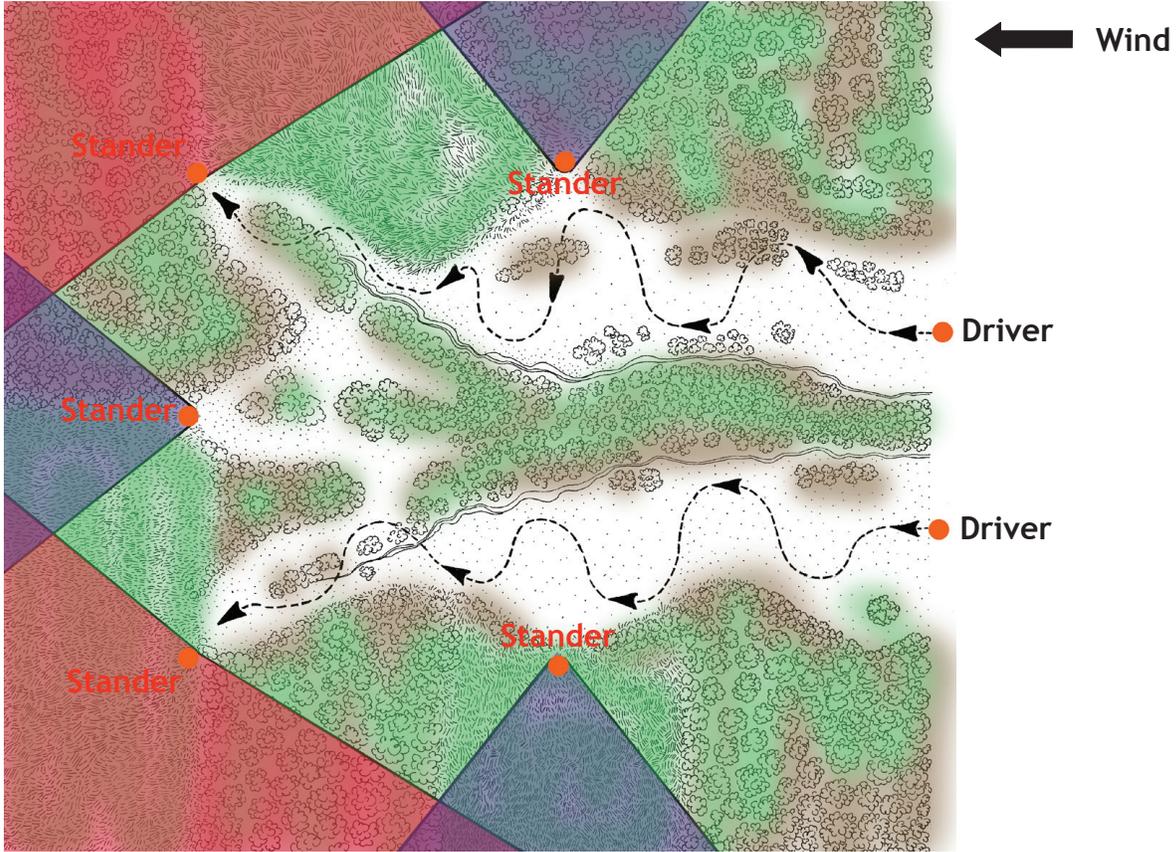
Again, every hunter needs to know the direction of the drive! Remember that *drivers* are rarely shooters. They will be surrounded by *standers* and will not have a safe shooting zone.

In most cases, one or two drivers are enough. It is more important to have more *standers* than *drivers* because *standers* are the only hunters in the group who **may** have a safe zone of fire.

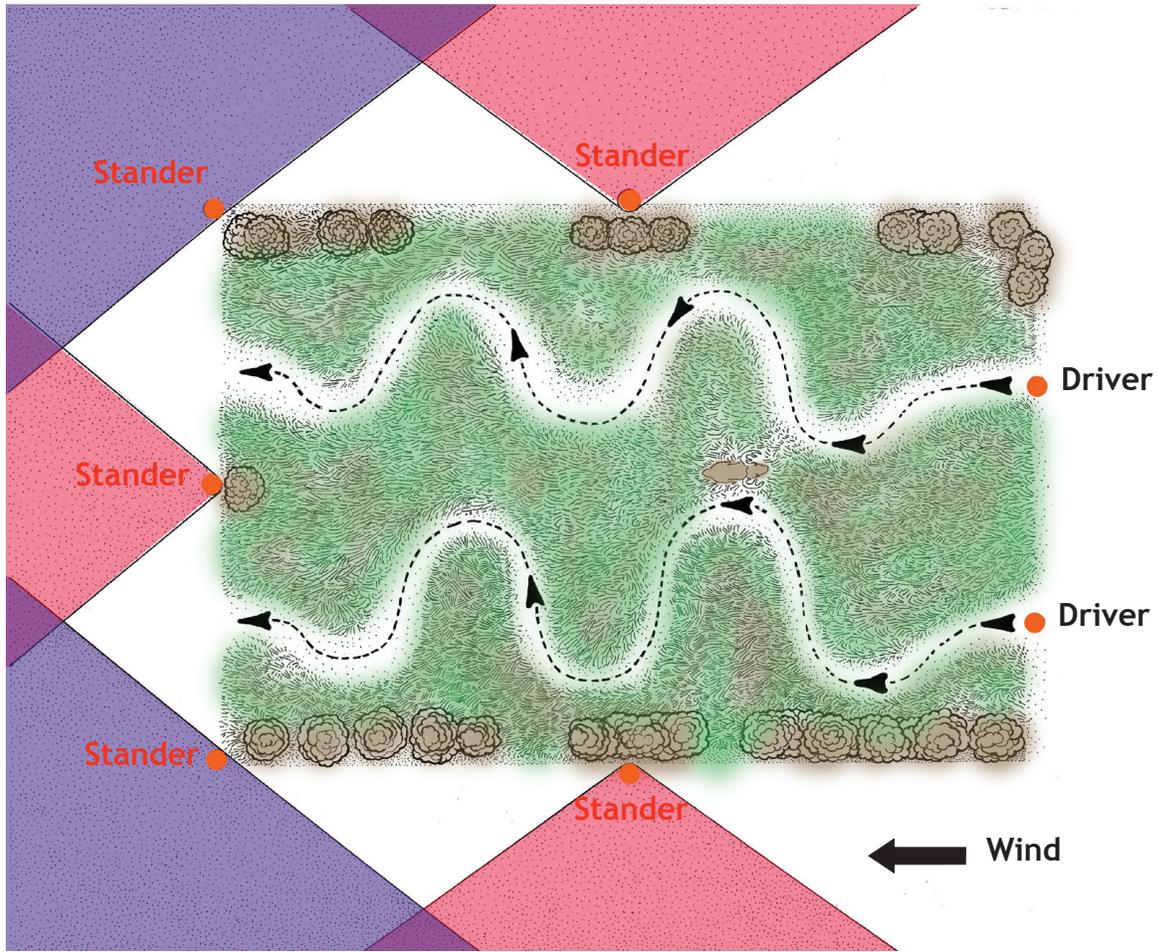
Remember that the purpose of the drive is **to get the deer to move, not run.** The drive should be slow and planned, and the *drivers* should stop every few yards to avoid forcing the deer to run from them. They should try to cause the deer to move slowly past the *standers* for an easy and safe shot. **Shooting at a running deer is not likely to be successful, and should be discouraged.**



# Deer Drive (Hill Country)



# Deer Drive (Woodlot)



*Standers* must remain motionless and watch closely for deer moving ahead of the *drivers*.

Remember to never shoot at a deer that is coming toward you. A shot in this direction will **always** have an unsafe background. Shooting at a deer in front of you will mean that you are shooting in the direction of the *drivers*.

Shooting at a deer passing you is also an unsafe shot because of the other *standers* in the background.

As a *stander*, the only safe shot will be **after** the deer has passed you.

There are many unsafe shots presented to a hunter during a deer drive. This is why a hunting plan with safe zones of fire mapped out for each hunter is very important. Regardless of your role in a deer drive, you should only shoot at a deer in your safe shooting zone. Remember to always “**plan your hunt and hunt your plan**” for a safe and successful hunt.

## Hunting from a Tree Stand (Hunters Beware!)

Hunting deer and other animals from elevated platforms, usually called tree stands, is an effective way to take game spe-

cies. If not used properly, these elevated platforms present one of the most dangerous situations a hunter can face. In recent years, *Deer and Deer Hunting Magazine* conducted two surveys and discovered some startling facts. **One out of every three tree stand hunters will fall during their hunting career.** Make no mistake, if you fall chances are you will be hurt! Nationally and in Ohio, we have hunters seriously injured and killed each year from tree stand falls. A fall from a stand can change your life forever, not to mention the effect on your family. The shame of it is that none of these accidents have to occur. They are all preventable. **It is your responsibility to learn proper tree stand safety rules and to follow these rules each time your feet leave the ground. Your life may depend on it!**

There are some basic guidelines that will prevent you from becoming an accident victim. **You need to follow these each and every time you use an elevated platform to hunt.**

- **Tree Stand Selection** - Your selection and proper use of a tree stand is one of the most important factors in having a safe and rewarding hunt. **Never use home-made tree stands and tree stands made from wood.**



Home-made stands are involved in the highest number of falls and usually cause permanent damage to the tree. You should only use a tree stand that has the approval of the Tree Stand Manufacturer's Association. When purchasing or using a stand, look for the “TMA” seal on the box or on the stand. If you cannot find this

seal, purchase or use a different model that you can identify as TMA approved. You must read, understand, and follow the manufacturer's instructions included with the stand prior to its use. Practice mounting and using the stand along with all of the other safety devices at home before using them in the field.

- **Climbing Steps or Aids**

- There are many different climbing steps or aids currently available to hunters. Screw-in tree steps are probably the most common, but can cause falls and damage to the tree if not used properly. Hunters should seek permission from the landowner to use any device that screws into the tree. You also need to pay attention to regulations that pertain to use of these devices on public or state-owned hunting areas. **Hunters should never use wood steps that are attached to the tree with nails or spikes.** A lot of falls are associated with these home-made 2x4 wooden steps. Whether you choose screw-in steps, climbing sticks, or ladder stands, you need to follow the manufacturer's instructions for use and safety. Use a climbing safety device when using these steps or climbing aids.

- **Fall Restraint System (Safety Harness)** - Hunters must

use a fall restraint system when using an elevated tree stand or platform. **Note: A single safety belt is not a system!** In years past, hunter education organizations stressed that hunters needed to use a safety belt that went around the hunter's waist and attached to the tree with a strap. We have now found that in a fall these types of belts can and do cause serious injury and even death. The best advice is to not use this type of belt. If you disregard this advice, at least put the belt around your chest under your armpits and then attach the safety tether to the tree so that there is no slack when sitting down in your stand. Failure to do this can result in the belt twisting during a fall and tightening to the point where you cannot breathe. **This has caused death to Ohio hunters!** All hunter and hunter education organizations now recommend a full body restraint system (safety harness) *that wraps around your chest, waist, and legs.* These systems use a full body harness along with climbing and tree attachment devices to create a "total safety system" that provides the hunter maximum protection against falls. A good system allows the hunter to use one harness that allows for attachment of a climbing rope or strap and also provides a way to attach a safety tether to the tree



once you are safely and securely in your tree stand. There are many good systems available on the market today and the cost of \$30 to \$40 is a small price to pay for your safety. Whatever system you choose will require your complete understanding of the instructions and faithful use

of the system in the field. The number one rule to follow is that **when your feet leave the ground, a restraint system is in use!**

- **Haul Line** - Always use a **haul line**, or a rope attached to the tree stand left hanging to the ground, to attach and raise your firearm or bow into the tree stand. Double-check firearms and crossbows to be sure that they are unloaded before attaching them to the tow line. Never attach the tow line to the trigger guard of a gun or crossbow. The tow line should be located on the opposite side of where you climb up to your stand. This will keep you from falling on your gun or bow if you should happen to fall.

Using elevated platforms or tree stands requires skill in addition to knowledge. Hunters must be in good physical shape and have a reasonable sense of balance and coordination. Do not attempt to use a tree stand if you have a fear of heights. Your fear will be enhanced because you will be on a small, see through platform. Wind can move a hunter by moving the tree, even in a properly placed tree stand. This can scare or unnerve anyone.

If you choose to use a tree

stand, there are other things to be aware of and to consider. Building tree stands on private lands requires the permission of the landowner. Check your hunting regulations for information on the use of tree stands on public lands. Use common sense when determining the height of a stand. Thirty feet, for example, is definitely too high and is unnecessary! Regardless of what other hunters tell you, the average tree stand height of 12 to 15 feet from the ground will give you all of the advantage you need. If a hunter approaches your stand, do not move or wave. Call out instead to alert the hunter to your presence. And finally, if you plan to stay in the tree stand until after dusk, or get there before daylight, remember to take along a flashlight.



**One out of every three tree stand hunters will fall during their hunting career.**

# Chapter 6 Review Questions

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1. What is meant by an “attitude of safety”? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. If someone checks the gun before you and says it is unloaded, it is OK for you not to check it when it is handed directly to you. True or False
3. How should firearms and ammunition be stored in the home? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. A gun carried in a vehicle must be \_\_\_\_\_ and \_\_\_\_\_.
5. Why is hunter orange the most effective safety color for hunting? \_\_\_\_\_  
\_\_\_\_\_
6. Name four colors to avoid while turkey hunting \_\_\_\_\_  
\_\_\_\_\_
7. Name three colors to avoid wearing while deer hunting. \_\_\_\_\_  
\_\_\_\_\_
8. You should unload your gun before crossing a fence, climbing a tree, or crossing over a stream or a log. True or False
9. How should you properly cross a fence with a firearm by yourself? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. A hunting trip with friends first requires a \_\_\_\_\_.

# Chapter 6 Review Questions

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11. When participating in a deer drive, you should only shoot when a deer is \_\_\_\_\_  
\_\_\_\_\_.
12. When participating in a deer drive, as a driver, it is safe to shoot at a deer running away from you towards the standers, as they will be well hidden and will know to stay out of the way of any shots you fire. True or False
13. A single safety belt is the best type of safety device to use in a tree stand to prevent an injury if you should fall. True or False
14. The best type of safety device that prevents injury during a fall from a tree stand is a \_\_\_\_\_  
\_\_\_\_\_.
15. You don't have to put on your full restraint system until after you sit down in the seat of your tree stand. True or False

# Section 3: Being A Hunter

## Chapter 7: The Hunter's Responsibilities

### STUDENT PERFORMANCE OBJECTIVES

In this chapter, the student should learn:

1. Things that make a responsible hunter
2. Responsibility to the resources
3. Why hunting laws are necessary and important
4. Why good marksmanship is important
5. How to sight-in a rifle or handgun
6. What is your dominant, or master eye
7. Proper game care

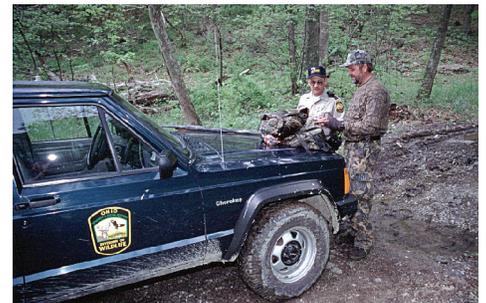
### ETHICS

All hunters must accept the responsibilities that come with the sport, since hunting is often made up of a series of decisions that must be made in a split-second. The future of hunting may well depend upon how responsibly you make those decisions and the judgment you use. *A set of values or principles that aid in making good decisions is called **ethics**.*

A hunter has many different kinds of responsibilities. First, you must handle the firearm or bow according to safety guidelines. In addition, the responsible hunter must know the proper way to shoot a firearm and the right kind of firearm and ammunition for each kind of game. This is a combination of knowledge and skill that makes up an experienced hunter.

The responsible hunter must also know what clothes to wear for protection from the weather and from other hunters who may not be acting responsibly. Clothing choices change from season to season and with the various hunting techniques and styles.

The responsible hunter must have good social skills. This means getting along with the people within your hunting group and the person who owns the land you are hunting on. You must also consider any other people you might meet or who may see you going to or coming from a hunt. Remember, hunters are constantly being judged by others who may be non-hunters or even anti-hunters, and the



### HUNTER'S ETHICS KEY TERMS

Ethics  
Conservation  
Regulations  
Wildlife Officer  
(TIP) Turn-In-a-Poacher  
Sight Picture  
Master Eye  
Field Dressing  
Plucking  
Skinning  
Violation  
Dressing

## NRA Hunter's Code of Ethics

- I will consider myself an invited guest of the landowner, seeking his permission, and will conduct myself that I may be welcome in the future.
- I will obey the rules of safe gun handling and will courteously but firmly insist that others who hunt with me do the same.
- I will obey all game laws and regulations, and will insist that my companions do likewise.
- I will do my best to acquire marksmanship and hunting skills that assure clean, sportsmanlike kills.
- I will support conservation efforts that assure good hunting for future generations of Americans.
- I will pass along to younger hunters the attitudes and skills essential to a true outdoor sportsman.



actions of one can reflect upon all hunters. You should always be aware that you represent the sport even when you are not hunting. You should always do your best to project a good image to people, whether they are hunters or non-hunters.

The responsible hunter also knows how to conduct himself/herself when taking game to a check station. Often, non-hunters and members of the news media visit check stations. Imagine the impact upon the public if a few irresponsible hunters, who were behaving in a loud, boisterous way, were checking poorly cared for deer as a television crew taped the action. Do you think the actions of these few hunters could affect how others view all hunters? Do you think these hunters demonstrate respect for the sport or the game they've taken?

**Conservation** is the wise use of our natural resources. The responsible hunter understands the environment. You must know what good habitat is and generally how it helps wildlife. You must study the animals you hunt so you can learn their ways, habits, and hiding places, as well as food choices and needs.

The complete hunter also has the responsibility of protecting

the environment to the best of his/her ability. We must recognize that for human beings to live, natural resources must be used. However, we also must recognize that it is our responsibility to use all resources wisely. Waste and irresponsibility are not conservation.

Only when you develop the knowledge, skill, and attitude to understand and take on these responsibilities as a hunter can you call yourself a complete hunter and sportsman.



## Permission To Hunt

Approximately 95 percent of the land in Ohio is privately owned. As a result, most hunters do at least part of their hunting on land owned by an individual. This means that only five percent of the land in the state is publicly owned, and not all of this land is open to hunting.

It is each hunter's responsibility to cooperate with landowners to insure good hunter-landowner relationships. As a responsible hunter, you must recognize that

you are a guest of the landowner. As a guest, it is respectful to get the landowner's permission to hunt well in advance of the actual hunting days.

If a landowner refuses permission to hunt on the land, you must accept this landowner's decision gracefully. Responsible hunters do not trespass on another's property. We know that an individual owns that property and hunting there without his/her knowledge is illegal. Hunting without permission has closed more private lands to hunting than any other act alone. In Ohio, the landowner's written permission is required for hunting and trapping on private lands.

The responsible hunter knows the property and the boundaries of the property he/she has written permission to hunt. The responsible hunter also has a clear understanding with the landowner about bringing friends along. Remember that these friends must also have written permission from the landowner before hunting.

## Hunting Regulations

**Regulations** are rules or laws by which conduct is regulated. To be a safe and ethical hunter, you must observe all hunting laws. Hunting laws are enforced by **wildlife officers**. These laws are necessary for three basic reasons:

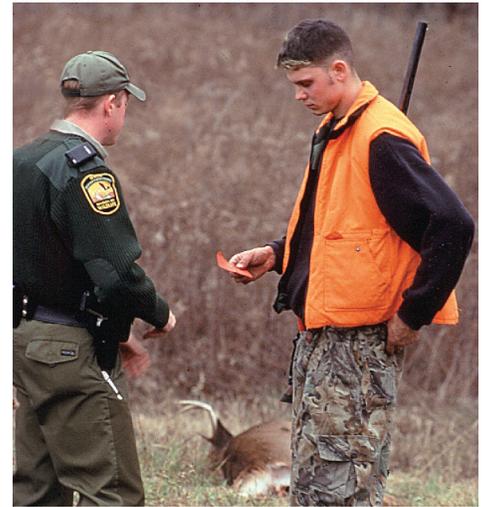
1. To insure the safety and welfare of people
2. To insure everyone equal opportunity to hunt
3. To protect and conserve wildlife

Each state's hunting laws will differ, but almost all of these laws help to accomplish one or more of the goals listed above.

Many laws are for the protection of wildlife. **Closed seasons** (means that period of time during which the taking of wild animals is not allowed) provide protection to game during periods of reproduction and winter stress. **Bag limits** (means the number of animals that can be taken in a day or season) make it possible for the maximum number of hunters to take part in the allowable harvest. To the sportsmen, the need for closed seasons and bag limits is well understood and each law is followed.

Here are some of the other things responsible hunters must do to make sure they get along well with landowners:

- Ask about the presence of livestock. Avoid hunting near livestock or buildings.
- Ask about gates. Always make it a rule to leave gates as you find them, whether open or closed.
- Cross fences in ways to avoid loosening the wires or posts. Whenever possible, use gates to get through fences.



## Hunters Know The Law Ohio Revised Code Section 1533.17

- No person shall hunt or trap upon any lands, pond, lake, or private waters without obtaining written permission from the owner or the owner's authorized agent.

**Penalties are up to \$500.00 and 60 days in jail for a first offense. For a second offense the penalties are up to \$1,000.00, 6 months in jail, and/or loss of firearms or other hunting implements.**

- Restrict all driving to roads and established trails. Driving off roads causes ruts which result in erosion and damage to the property.
- Never drive or walk through standing crops if damage might occur. Don't send a dog into standing crops if damage might occur.
- Don't park in a way that blocks gates or roadways.
- Be alert and report anything you think might be wrong, such as broken fence or injured livestock, to the landowner as soon as possible.
- Don't wear out your welcome. It is all right to hunt the same land several times during a season, but never hunt the same place day after day, thus depleting the wildlife rather than harvesting the surplus.
- Recognize that the landowner has done you a favor by allowing you to hunt. Stop to thank him after the hunt. You can say "Thanks" in many ways, such as helping with chores.
- Offer to share some of your game, which has been properly cleaned, as an appropriate gift. Remember the landowner on holidays.

Unfortunately, there are some who do not believe that rules are meant to help both wildlife and people. They risk lives and other hunters' reputations by breaking

those rules. Some even expand their illegal activities to "non-game" animals. These people are not sportsmen. They are poachers and should be seen as a threat to the safety and reputation of responsible hunters.

Ohio wildlife officers work hard to enforce the state statutes and Wildlife Code regulations governing hunting, but unfortunately they may not catch every violation.

A responsible hunter reports wildlife law violations- *an act that breaks any regulation or law*, to a wildlife officer, to the county sheriff's department, or to Turn In a Poacher (TIP).

Ohio's TIP Program is helping to curtail poaching throughout the state. TIP is designed to *involve the public in reporting wildlife violations*. Citizens who observe wildlife violations should write down the information, and then call the TIP toll-free hot line, 1-800-762-2437.



**Poachers  
 are hurting  
 our sport  
 and costing  
 us places to  
 hunt.**

**DON'T GIVE  
 THEM A  
 BREAK!**

**Report ALL  
 wildlife  
 violations.**



## Marksmanship

Being a responsible hunter also involves knowing which firearm and ammunition combination is legal and appropriate for the type of game being hunted. In addition, it involves developing the shooting skill necessary to make a quick, clean kill when the opportunity of a shot presents itself. To do this, the responsible hunter knows that he/she must study and practice as much as possible.

## Master Eye

Before you can become a competent shot, you must determine which is your **master eye**, or *individual dominant eye*. Just as everyone has a dominant hand, left or right, they have a master eye. Most people assume that their master eye is the same as their dominant hand, but this is not always true.

There are several ways to determine your master eye, but this is one of the easiest:

1. Form a small triangle with your hands and extend your arms as far as possible in front of you.
2. Pick a spot some distance from you, across a room is far enough, and make sure you can see it through the triangle **with both eyes open**.

3. Concentrate on the spot and pull your hands slowly back to your face.
4. Close one eye and leave the other open, and then open the first eye and close the second.

One eye should see the spot, the other the back of your hand. The eye looking at the spot is your master eye.

## Hunting with a Shotgun

Many different types of wildlife are hunted with a shotgun. Hunters need to carefully select a choke and shot size to match the game being pursued and hunting conditions.

There is only one way to know for sure what shot pattern to expect from a specific shotgun. Create a target from a 30-inch or larger round piece of paper. Stand 40 yards away and point and shoot at the center of the circle with various brands of shot shells and various shot sizes. This is called **patterning a shotgun**. All shotgun hunters should pattern their guns to determine the best brand of shells and shot sizes for a given type of hunting.

Basically, shotguns are pointed rather than aimed. As a result, most have only a bead located on the tip of the barrel just behind the muzzle and some form of channel or wide area



on the action to help the hunter point.

The shooter should use some form of rest, such as sandbags on a table, a rolled up sleeping bag, or at least a solid sitting position, to hold the shotgun steady as he fires it at a patterning target. The shooter must hold the gun and point it at the target exactly the same way every time he/she fires.

## Hunting with a Rifle or Handgun

A rifle and handgun differs from a shotgun because they fire a single projectile. Rifle or handgun ammunition, including bullet type, must be matched with the game you plan to hunt.

Because a rifle or handgun fires only a single projectile, sights must be used to hit targets accurately and consistently. These sights must be adjusted for the individual shooter because everyone's eyes see a little differently and everyone holds a firearm just a little differently than anyone else.

Always remember, a rifle or handgun must be sighted in with the ammunition you plan to use while hunting. Sight in before you go hunting, allowing yourself enough time to practice firing consistently and accurately.

## Sights

Rifles and handguns use one of three basic types of sights: open sights, peep sights, or telescopic sights.

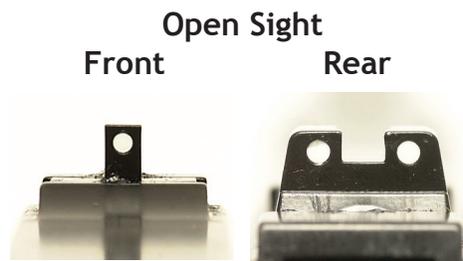
**Open Sights:** The rear portion of an open sight has a "U" or "V" shaped notch cut in the center. The front sight is usually a bead or post. To align the sights, the shooter centers the bead or post of the front sight into the notch

of the rear sight. This often is referred to as sight alignment. The aligned sights are placed upon the target to complete the sight picture.

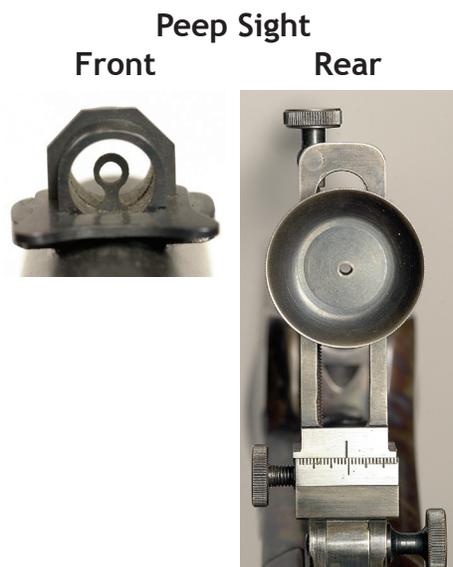
**Peep Sight:** A peep sight includes a disc with a drilled hole in the rear portion. Usually, the rear portion of this sight is placed close to the shooter's eye. To align the peep sight, the shooter looks through the hole and centers the bead or post of the front sight. To complete the sight picture, the front sight then is placed upon the target. Those experienced with the peep sight find that the eye will center the front sight more quickly and easily than with an open sight.

When using open and aperture sights, the rear sights and the target should appear blurred and the front sight should appear sharp and focused. It is impossible for the human eye to focus on three points of differing distances at one time. Focusing on the front sight will produce the most accurate shooting.

**Telescopic Sights:** When using telescopic sights, the shooter has the advantage of seeing only one image on the target. Additionally, most telescopic sights magnify the target, making it easier to see. However, keep in mind that magnification emphasizes all body movement, in-



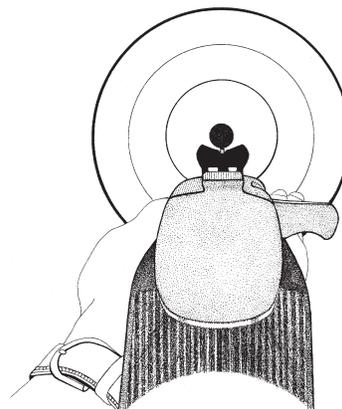
Correct Open Sight Alignment



Telescopic Sight



Correct Sight Picture



cluding breathing and heartbeat, which can impair confidence and hamper accurate shooting. As a result, most telescopic sights used for hunting magnify only moderately.

With a telescopic sight, the reticle, usually a crosshair of some form is placed on the target to complete the sight picture.

## Sighting In

Concentrate on aligning the sights and using the same sight picture- *aligned sights that are placed upon a target before firing*, every time. Breathe normally as you aim. Upon exhaling, stop breathing and squeeze the trigger as you concentrate on the sights. The discharge of the firearm should be a surprise to you. Do not anticipate the shot going off! You need to fire at least three shots from a steady rest, using the same sight alignment and sight picture for each shot. Do not be concerned, at this point, if you are not on the bull's-eye.

Locate the center of your shots, or group. Once the center of your group is determined, adjust the rear sight in the direction needed to move the center of your shots over the bull's-eye. Lack of a tight group could be the result of improper sight

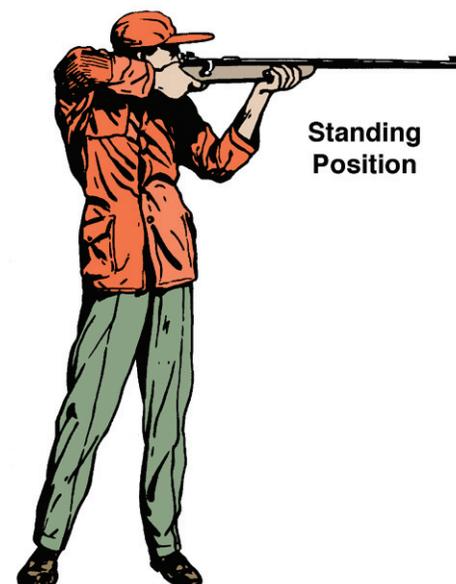
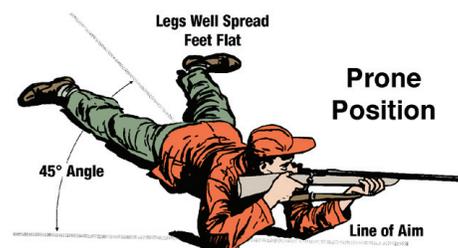
alignment or sight picture. Poor breathing technique or jerking the trigger instead of squeezing it slowly can also spread your shots. Only practice can make you a good rifle shot. Generally speaking, pistols and .22 rifles are sighted in at 25 yards. High-powered rifles are sighted in at 100 yards.

## Shooting Positions

When you are shooting a rifle there are many different positions you can use. Always use the steadiest possible position for accurate shooting. The steadiest and best shooting position is called the prone position, where the shooter is actually laying on the ground.

Second best is the sitting position, where your arms rest on your knees. The third, kneeling, allows you to rest one elbow on your leg, but it is not a very stable position. Standing or offhand is the least steady of all, and if you must use it, try to lean against a tree or post to help steady your shot.

You should be familiar with all positions because sometimes you can't always get into the steadiest position for that once in a lifetime shot.



## Game Identification

The responsible hunter knows to **positively identify** and see the game **clearly** before even raising a firearm. Wildlife identification is a skill developed by studying an animal's physical characteristics, coloration, and tracks. Often, this identification must include not only the species, but also the sex or other information.

For example, a spring turkey hunter is allowed to take only a bearded turkey. So the hunter must not just see and identify the turkey, but he/she must also see the specialized feathers, called a beard, which sprout from the bird's breast.

Duck hunting is one of the more demanding examples of game identification. You must wait until the birds' colors and feathers can be identified, which determine what species and sometimes what sex the bird is, before you shoot.

Responsible hunters don't try to learn game identification in the field. Experienced hunters start long before the hunting season, studying the quarry, scouting specific areas to hunt, and learning as much about the animal and its habits as possible. When an experienced hunter is familiar with an animal's habits, he/she is able to be patient until the quarry is in a good position to make a good shot, insuring a quick, clean kill.

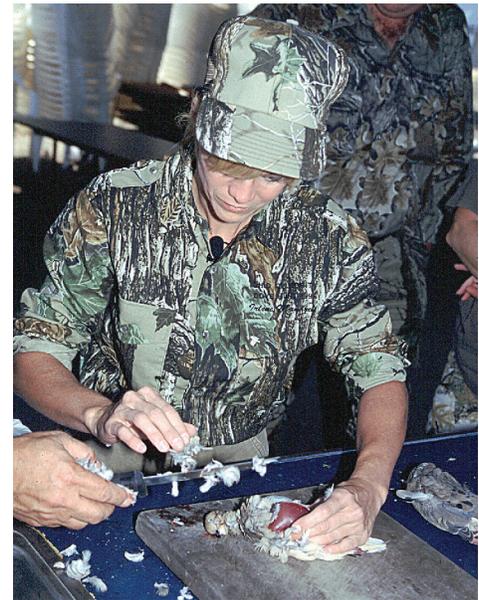
## Game Care

As a hunter, how tasty your wild game will be depends almost entirely on the field care you give the animal after it has been killed. Dirt, heat, and moisture are the three main causes of meat spoilage.

**Field Dressing** is the removal of the entrails to prevent the meat from spoiling. Entrails are the internal organs of an animal, sometimes referred to as "guts." Field dressing protects your game and permits field identification by wildlife officers. **Remember some game like deer or turkey must be temporarily tagged before moving.**

**Dressing** is the removal of the head, feet, skin and/or feathers. Dressing is not permitted on some game, including deer and turkey, until it has been permanently tagged at the official check station. For waterfowl, dressing is not permitted in the field, according to federal regulations.

Dressing game birds involves one of two methods: plucking or skinning. **Plucking** removes the feathers and leaves the skin on the bird, which makes it tastier by sealing in juices and natural fat, and by preventing drying while cooking. **Skinning** removes the skin entirely and is simpler and faster.



- To skin a bird, pull the skin until it tears, then peel the skin off, cutting off the feet when finished.
- To pluck a bird, simply pull out the feathers.

The field dressing of big game (deer) is no different from small game. If the head is to be mounted, the throat should **not** be cut or stuck. Bleeding wild game is not necessary, because the best way to bleed the carcass is by prompt field dressing.

When field dressing big game, like deer, carefully check for old wounds where broadheads may be embedded in the deer. Being cut by a broadhead is a serious injury.



# Chapter 7 Review Questions

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1. Name at least five things that make a responsible hunter. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. In Ohio, what must you receive from a private landowner prior to hunting on their land? \_\_\_\_\_  
\_\_\_\_\_
3. State hunting laws are mainly enforced by: \_\_\_\_\_
4. The period of time during which the taking of wild animals is not allowed is called a \_\_\_\_\_  
\_\_\_\_\_
5. The number of animals that can be legally taken in a day or season is called a \_\_\_\_\_
6. Where can you or another person report a wildlife violation? \_\_\_\_\_  
\_\_\_\_\_
7. Why is good marksmanship important? \_\_\_\_\_  
\_\_\_\_\_
8. Is a shooter's master eye always on the same side as their strong or dominant hand? \_\_\_\_\_
9. The steadiest shooting position is the \_\_\_\_\_.
10. Name three types of sights used on a rifle or handgun. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
11. List the three main causes of meat spoilage. \_\_\_\_\_  
\_\_\_\_\_

# Chapter 7 Review Questions

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12. The removal of the entrails to prevent the meat from spoiling is called \_\_\_\_\_.
13. Removal of the head, feet, skin and/or feathers is called \_\_\_\_\_.
14. Dressing game birds by removal of the bird's feathers, but leaving the skin on the bird is called \_\_\_\_\_.
15. Dressing a game bird by removing the skin entirely from the bird is called \_\_\_\_\_.

# Section 3: Being A Hunter

## Chapter 8: Outdoor Safety

### STUDENT PERFORMANCE OBJECTIVES

#### In this chapter, the student should learn:

1. How to signal for help when lost or injured in the outdoors
2. At least three primary components that should be included in a survival kit
3. What item is required by law for each person in a boat
4. Why it is important for everyone to wear a life-jacket while boating
5. Two factors that increase the possibility for hypothermia and frostbite
6. Two factors that increase the possibility for heat exhaustion
7. The causes, prevention, symptoms, and field treatments of hypothermia, heat exhaustion, and frostbite
8. How to create a hunting plan

Long before the hunting season arrives, a hunter should start preparing himself or herself mentally and physically. This will help to provide a safe and enjoyable hunting experience. Important things to consider include:

- Physical conditioning
- The creation of a hunting plan
- Knowledge of first aid

### Physical Conditioning

**Physical conditioning** is the strengthening of your heart, lungs, and muscles. Physical conditioning takes time to accomplish. Don't put it off until the last minute! You should develop an exercise program that takes into consideration your age, weight, and general health condition. You may want to consult with your doctor when designing your exercise program. Listed below are some general health concerns to consider:

1. Age
2. Weight
3. Heart condition
4. Allergies
5. Physical limitations
6. Medications

The type of hunting that you plan to do will also have an effect on your exercise program. You should consider the environmental conditions you will encounter when getting in shape for a hunting trip. Some of these include:

1. Anticipated weather
2. Altitude
3. Terrain

**Topography**, or the changes in elevation, such as hills and valleys, is important for a hunter to consider when planning an exercise program. Walking up and down hills requires much more energy than walking on flat ground. Also, you will place added demands on your body if you carry a backpack. If you will be hunting at higher elevations you will need to remember that the air will have less oxygen. This, too, will reduce your strength and endurance.



### OUTDOOR SAFETY KEY TERMS

Physical conditioning  
Topography  
First Aid  
CPR  
Hypothermia  
Frostbite  
Heat Exhaustion  
PFD

## Plan

Some hunters don't consider their hunt until they step into the field. These hunters are missing out on a very important part of the hunt, the hunt plan.

There are many benefits in taking time to plan a hunting trip in advance. You will increase your chances of having an enjoyable and successful outing when you carefully plan each hunt. Planning in advance with your friends and hunting partners also builds excitement and increases everyone's knowledge. Most importantly, a hunting plan could save your life by helping you be prepared and by letting others know your location and time of return.

A hunting plan should address many different things. For example, the area where you will be hunting and the type of weather you may encounter will determine what type of clothing you need to take with you. Remember that weather conditions may change quickly. A wise hunter will be prepared for these sudden changes.

Obviously, a long and distant hunting trip will require much more planning than a one-day hunt close to home. For a single day's hunt, you may choose to take a snack with you.

For longer hunting trips, especially those that include setting up a campsite, you will need to plan much more carefully for food and shelter needs. This may not be a problem if you will be driving to your hunting area. If you will be backpacking, however, you will need to plan much more carefully. For these trips you will need to take into account the amount of weight you will be able to carry.

Make a list of all the hunting equipment you will need so that you will not forget any important items. Carefully check all your equipment to be sure it is in good condition. Make sure that you are familiar with the use of all your equipment.

Become familiar with the habits of the game you will be hunting, and be able to accurately identify the game. Study the hunting laws for the area where your hunt will occur. Know what licenses or permits are needed. You may also need to learn about the altitude and topography of the location where your hunt will take place.

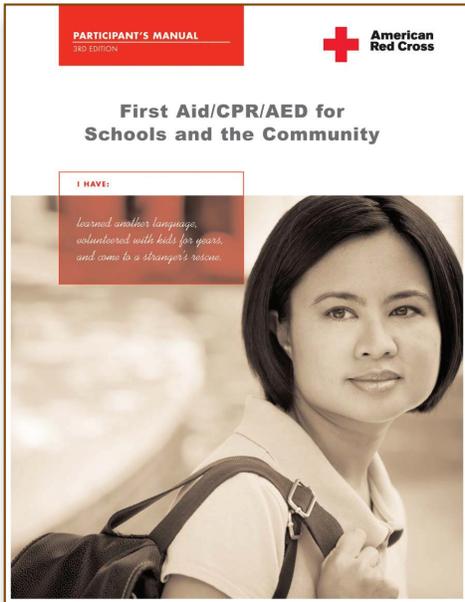
Write out a detailed schedule for your hunt and leave a copy with someone who will not be going with you. This becomes very important when emergencies develop or if you fail to call or return on time.

### Some Things to Consider in a Hunting Plan:

- Hunting licenses
- Proper clothing
- Expected weather conditions
- Food
- Water
- Shelter
- Necessary equipment
- Method of travel
- Educational preparation
- Hunting law familiarization
- Detailed schedule
- First-aid kit
- Survival kit
- Signaling devices
- Watch

**Someone should know when you plan to return and your actual hunting location.**





Review your hunting plan carefully and often. You should add information as you have new ideas and eliminate things that are unnecessary or excessive. As the time for your hunt approaches, you will need to finalize your hunt plan.

If you have done a good job of planning, it is likely that you will have a safe and enjoyable hunt. It then becomes important that you stick closely to your plan. There is much truth in the old saying, “**Plan your hunt and hunt your plan.**”

When you return home, you should review your plan to see what changes you should make for your next trip. This will help to make your next outing more enjoyable and successful than your last.

## First Aid

Everyone, especially hunters, should take a class in first aid. **First aid** is the immediate and temporary care of the victim of an accident or sudden illness until a professional medical person arrives.

In order to give first aid, it is essential that you carry a first-aid kit. A good first-aid kit includes:

- ✓ Latex gloves
- ✓ Sterile gauze dressings
- ✓ Roller bandages
- ✓ Tape
- ✓ Triangular bandages
- ✓ Space blanket
- ✓ Rescue barrier for CPR
- ✓ Maintenance medications
- ✓ First-aid book

Hunters should also learn how to properly perform CPR. **CPR (cardio-pulmonary resus-**

**citation)** is a combination of chest compressions and rescue breathing. Severe injuries, such as a victim of a heart attack or a person whose injury causes breathing or heartbeat to stop, will need CPR.

An injury can occur while hunting even when we are careful. It is important to know what to do, and what not to do, in such medical emergencies. Improper care could worsen the victim’s condition.

Anytime first aid or CPR is needed you should remember the three basic steps:

**CHECK**  
**CALL &**  
**CARE**

**CHECK** the area to be sure it is safe to attend the victim. If it is safe, **CHECK** the victim to find out what happened and determine their condition.

If possible, **CALL** for help.

After help has been contacted, you should then **CARE** for the victim, using the knowledge you learned in a first-aid / CPR class. A first-aid kit that you have with you will help greatly in providing care for the victim.

Understand that mild bleeding and fractures are not usually life threatening. However, a person who is not breathing or has no pulse is at great risk of dying. A victim who is unconscious should also be considered at risk of dying.

## Extreme Conditions

Extreme weather conditions can also create dangerous health situations for hunters. Proper precautions can greatly reduce a hunter's risk of injury or even death.

**Hypothermia** is a condition where your body loses heat faster than it can produce heat. This may be the greatest threat to a hunter's safety. If your body temperature drops too much in your vital organs, especially your brain and heart, they will stop functioning.

Hunters may be at risk of hypothermia due to exposure to cold air or cold water. Wet clothing, wind, exhaustion, and cold water greatly increase the danger of developing hypothermia. It is important to remember that hypothermia can occur at any time of the year. Hypothermia has been called "The killer of the unprepared." Hypothermia is a common condition and the number one killer of outdoor recreationists. It is important to plan ahead before going into the field.

While hypothermia is a reduction of your overall body temperature, **frostbite** is the freezing of body tissue (skin). Frostbite most commonly affects your fingers, toes, ears, nose, and face. It is usually caused by direct exposure to cold or to high wind.

Frostbite may lead to the loss of skin and tissue, and may cause blisters. The resulting damage may be permanent. To avoid frostbite, keep skin surfaces covered in cold weather and take the same precautions as given for hypothermia.

**Heat exhaustion** is a condition when your body becomes overheated. Increased air temperature, poorly ventilated clothing, loss of body fluids, low physical fitness, or being overweight can cause heat exhaustion. If severe, death may occur from damage to vital organs.

You can help prevent heat exhaustion by avoiding too much activity on hot days. Also, be sure to wear loose clothing and wear a hat when in the sun. Drink plenty of water even when you are not thirsty.



## HYPOTHERMIA

### Prepare

1. Choose layered clothing that will keep you warm and dry
2. Check weather forecasts
3. Be alert for early signs of hypothermia

### Symptoms

1. Feeling cold
2. Numbness
3. Uncontrolled shivering
4. Slow, slurred speech
5. Incoherent speech
6. Muscles stiffen
7. Loss of coordination
8. Loss of memory
9. Drowsiness
10. Faulty judgement
11. Diminished reasoning

### Treatment

1. Move to warm, sheltered area, out of wind & cold
2. Build a fire for warmth
3. Replace wet clothing with dry clothing or get in a dry sleeping bag
4. Use warm packs
5. Share body heat
6. Do not let victim sleep
7. If conscious, give victim warm, nonalcoholic drinks
8. Seek medical attention

## FROSTBITE

### Symptoms

1. Cold, flushed skin
2. Skin turns white or grayish yellow
3. May be painful, but more often is numb

### Treatment

1. Move to warm, sheltered area, out of wind & cold
2. Build a fire for warmth
3. Replace wet clothing with dry clothing or get in a dry sleeping bag
4. Use warm packs
5. Share body heat
6. Do not let victim sleep
7. If conscious, give victim warm, nonalcoholic drinks
8. Seek medical attention



## HEAT EXHAUSTION

### Symptoms

1. Muscle cramps
2. Headaches
3. Dizziness
4. Fainting
5. Blurred vision
6. Vomiting
7. Skin may be flushed or pale
8. Dry, clammy skin
9. Intense thirst
10. Fast, shallow breathing

### Treatment

1. Move victim to cool, shady place
2. Apply cool, wet cloths
3. If conscious, give water to drink
4. Seek medical attention

## Wind Chill Chart

		Temperature (°F)																	
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	Cal	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

**Frostbite Times**

30 minutes
  10 minutes
  5 minutes

*Effective 11/01/01*

## Survival

Any time a hunter is on a trip, there is a chance that he or she may become lost. This is especially true when hunting in an unfamiliar location. In a populated area, this will not usually be a serious problem. However, becoming lost could become a survival situation in a wilderness region that is far removed from towns and homes.

You should always plan ahead to be prepared when going hunting. The greater the chance of becoming lost, the more detailed your preparation should be.

Preparation should start with a personal survival kit that should be carried every time you go hunting. A belt pouch or fanny pack can hold items needed in a survival situation. A good survival kit should include the following:

- ✓ Pocket knife
- ✓ Compass
- ✓ Plastic whistle
- ✓ Matches in a waterproof container
- ✓ Second fire making method
- ✓ Fire starter
- ✓ Soap
- ✓ Water purification tablets
- ✓ Medication (If needed)
- ✓ First-aid kit
- ✓ Drinking container
- ✓ Nylon cord
- ✓ Extra glasses (if needed)
- ✓ Sunglasses
- ✓ Signal mirror

If you do become lost or injured while hunting, remember to **STOP**.

**S** = Sit

**T** = Think

**O** = Observe

**P** = Plan

First, SIT and rest for a while. Being rested will help you to THINK more clearly. OBSERVE your surroundings and PLAN your course of action. By following these steps, you will be more calm and prepared to evaluate your situation more realistically.

Panic is the worst thing you can do when lost. By admitting that you are lost, you will know to follow the steps outlined below. You are less likely to make mistakes that will make your situation worse if you follow these steps.

1. Wait for help as long as possible. Wandering through the woods to try to find your way back to camp will most likely result in being further off course. Since a hunter should always tell his hunting partners where he will be going, they will be better able to find you if you stay where you are.
2. Before it gets dark, make preparations for an overnight camp. Start a campfire and build

## METHOD OF SIGNALING FOR HELP

- 3 blasts on a whistle
- 3 fires in a triangle
- Signaling mirror
- SOS in snow or sand



## BELIEVE IT OR NOT.

You **CAN** get lost in Ohio or become injured! Survival knowledge should be important to every hunter.

a shelter. Take an inventory of your supplies and plan on how you will make the best use of each item. Plan on making your supplies last for three days.

3. Remember that the international signal for help is three of anything.
4. Three loud blasts on a whistle will alert those within hearing distance of your need for help. The proper response when hearing this signal is two return whistle blasts. Anyone going into the field should always carry a whistle for such emergencies.
5. If for any reason you do not have a whistle, you may fire three shots from your gun. Use extreme care to be sure your shots will be in a safe direction.
6. At night, three fires located in a triangle will give notice of your emergency. In daylight, a small mirror may be used to reflect the sun's rays and attract attention. You may also spell out "SOS" in snow or sand.

When you are hunting alone, or if all of your hunting party becomes lost, remember that you left a hunt plan with someone. When you don't return or call on time, they will start looking for you. This is why it is very important for you to closely follow your hunt plan. That way your rescuers will know where to search for you.

## Water Safety

A boat can help a hunter get to an area that would be impossible to get to by foot. A boat is also an easy way to carry your gear.

Before getting into your boat, you should check the local laws for any required equipment that must be carried aboard your boat. One such item that the law requires is a **PFD**, or a *personal flotation device sometimes called a life vest*. Everyone in the boat must wear a PFD. If you should ever fall overboard, a PFD will keep you afloat until you reach safety.

You should never stand up in a boat. Any quick motion or wave could cause you to fall out of the boat.

Always remember to load equipment and passengers evenly in the boat and do not overload the boat. This could cause the boat to turn over or sink.



**When hunting near water or from a boat this device can SAVE YOUR LIFE!**

## Water Survival Chart

Water Temperature °F	Exhaustion	Death
32.5	Under 15 Minutes	15 Minutes or Less
32.5-40	15-30 Minutes	30-90 Minutes
40-50	30-60 Minutes	1-3 Hours
50-60	1-2 Hours	1-6 Hours
60-70	2-7 Hours	2-40 Hours
70-80	3-12 Hours	3 Hours - Indefinite

# Chapter 8 Review Questions

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1. List at least four things that affect a hunter's physical ability to perform safely and responsibly.

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2. What are the benefits of having a hunting plan? \_\_\_\_\_

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3. Everyone, especially hunters, should take a first aid course. True or False Why? \_\_\_\_\_

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4. The three basic steps in first aid or CPR are: \_\_\_\_\_

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5. A condition where your body is losing heat faster than it can be replaced is called \_\_\_\_\_.

6. List four causes of hypothermia. \_\_\_\_\_

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7. Hypothermia is a rare condition and hunters shouldn't be concerned, especially since it is not very serious. True or False

8. How should you care for a victim of hypothermia? \_\_\_\_\_

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# Chapter 8 Review Questions

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9. What is frostbite? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

10. What are the causes of heat exhaustion? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. List five of the many items you should have in a survival kit. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. What should you do if you become lost in the woods? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. How can you best signal for help? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. A safety device that would prevent you from drowning if you should fall overboard is called a \_\_\_\_\_? Why should it be worn in a boat at all times? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

# Section 4: Conservation

## Chapter 9: Wildlife Conservation

STUDENT PERFORMANCE OBJECTIVES

In this chapter, the student should learn:

1. Two reasons for a decline in wildlife populations
2. The difference between conservation and preservation
3. The difference between a renewable and non-renewable resource
4. Two benefits regulated sport hunting provides to wildlife conservation
5. Two funding sources for wildlife management programs

The land held an abundance of many kinds of wildlife. **Wild-life** consists of *those animals that range freely in their natural environment, not kept in zoos or held as pets or farm animals*. Some of Ohio's original wildlife populations included:

- deer
- bears
- wolves
- elk
- bobcats
- mountain lions
- wild turkeys
- squirrels
- skunks
- badgers
- bald eagles
- songbirds
- numerous fish, reptiles, amphibians, and insects

This country was soon settled with people. Towns, cities, and industries replaced the habitat that was once home to wild animals. **Habitat** is *an area that supplies everything wildlife needs to live including food, water, cover, and space*.

### Habitat



Cover



Water



Food



Space

### Historical View Of Land Use

To understand wildlife management completely, we must first learn its history. Before European settlers arrived in America in the early 1600s, unpolluted lakes, rivers, prairies, and forests stretched across this country. The landscape had no roads, cities, or industries.

### WILDLIFE CONSERVATION KEY TERMS

- Wildlife
- Habitat
- Conservation
- Preservation
- Poaching
- Bag Limits
- Propagation
- Wildlife Management
- Limiting Factor
- Renewable Resource
- Non-Renewable Resource
- Carrying Capacity
- Predators
- Prey
- Game
- Sport Hunting



130 YEARS OF WILDLIFE CONSERVATION  
1873–2003

OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WILDLIFE

## MISSION STATEMENT

*We are dedicated to conserving and improving the fish and wildlife re-sources and their habitats, and promoting their use and appreciation by the people so that these resources continue to enhance the quality of life for all Ohioans.*

One of the largest hardwood forests on the earth made up Ohio's original habitat. However, the forest soon fell to the settler's ax, and the ground was plowed to make way for agriculture. Wetlands were drained and made ready for farming to meet the needs of man. This destruction of habitat was, and still is, the leading cause for the decline of some wildlife populations.

In addition, there were very few laws during the early 1800s to control hunting and trapping. As a result, uncontrolled hunting and trapping added to the decline in wildlife populations. Many people made a living as market hunters and trappers because they made a profit in towns and cities where fur and wild game were in demand.

Industries such as sawmills, gristmills, tanneries, and distilleries grew in number as time passed. The industries led to polluted air and water that is harmful to wildlife populations. The wildlife habitat in Ohio became polluted, destroyed, or changed. Animals had to adapt, migrate, or die.

Ohio became a state in 1803. Less than 100 years later, bears, bison, mountain lions, wolves, white-tailed deer, and wild turkeys disappeared from our state. Many other wildlife species were

greatly reduced in Ohio. Some wildlife, like the passenger pigeon, became extinct.

The early settlers used natural resources without thinking of the future. The people did not realize that they were hurting wildlife or that they were using up all of the natural resources.

This led concerned out-door-smen and legislators to take action to help our wildlife. In order to do this, a wiser and more conservative approach to using natural resources was needed.

The State Legislature formed the Ohio Fish Commission in 1873 to reverse the decline in fish populations. This was the first major step in initiating wildlife conservation in Ohio. In 1886, the agency was given responsibility for game animals as well as fish and became the Ohio Fish and Game Commission.

The first efforts of the Fish and Game Commission were to enforce new laws through fish and game wardens. Game wardens (now known as wildlife officers) are law enforcement officers that specialize in wildlife laws. These laws were made to protect wildlife that was in danger of being eliminated from Ohio.

Laws were passed that made fishing, hunting, or trapping

these animals illegal until their numbers returned to healthy levels. This would permit hunting and trapping the game without harming the overall population. Taking the surplus population of game animals has proved to be a wise and important tool for wildlife management.

Hunters were allowed to hunt or fish for animals with higher population levels under strict controls. The laws included open and closed seasons to insure that only surplus game was harvested. **Bag limits**, or the number of animals that can be legally taken in a single day or season, also helped to make sure that only surplus fish and game were taken.

In 1913, hunting licenses were first required for Ohio residents. This money was used to fund Ohio's wildlife management and wildlife law enforcement programs, and this is still the primary source of funding for wildlife programs.

## The Birth Of Wildlife Management

**Wildlife management** is "The art of making land produce and sustain an annual crop of wild game for recreational use and wildlife viewing." Wildlife management began to grow as

a profession in the early 1920s. The first wildlife managers established hunting regulations and propagated animals. **Propagation** means to raise fish or wildlife in captivity.

As wildlife management grew, common and widely accepted values were established. Research and experimentation led to different management methods that benefited wildlife.

It became obvious to wildlife management pioneers that good habitat was necessary for healthy wildlife populations. Changing the land to a healthy habitat was the key to encourage wildlife species to return to Ohio. They knew that Ohio needed a good supply of the four habitat factors to benefit wildlife.

The four habitat factors are food, water, cover, and space. If any of these are missing or are in short supply, it becomes a limiting factor to healthy wildlife populations. A **limiting factor** is any harmful element such as disease, bad weather, or poor habitat that may cause wildlife populations to be limited. A task of wildlife managers is to reduce a wild animal's limiting factors.

All wildlife species need to be managed according to their own habitat needs. A wildlife



## DID YOU KNOW?

- Division of Wildlife private lands biologists work with private landowners to improve wildlife habitat.
- Ninety-five percent of the land in Ohio is privately owned.
- Wildlife managers work hard to provide excellent habitat on Division of Wildlife-owned lands.
- The Division of Wildlife's wildlife management professionals track, survey, and perform research projects on both wildlife species and the habitat where they thrive.
- The ODNR Division of Wildlife owns more than 165,000 acres of public hunting and fishing grounds.
- Wetlands are home to more wildlife species than any other habitat type. More than 16,000 acres have been restored or enhanced by the Division of Wildlife since 1990.

manager must be familiar with the habitat needs of each wildlife species to create the right management plan. For example, a cottontail rabbit eats mostly grasses, clover, and other plants and needs brushy cover for shelter. A squirrel eats mainly nuts and seeds and needs woodlands for shelter. Foxes need holes for shelter and eat mostly mice and small rodents.

## Conservation vs. Preservation

One key wildlife management principle is that wildlife can be used and will replace itself. *A natural resource that can be replaced or replenished and available for continued use such as animals, trees, and other plants is a **renewable resource**. A **non-renewable resource** is one that can't be replaced after it is used such as coal, oil, or natural gas.*

Because it cannot be replaced, we may stop using a nonrenewable resource in order to keep it from being eliminated. *No use of a resource is called **preservation**. A renewable resource may also be protected for a time if the levels of the population are too low to be hunted or trapped and replaced naturally.*

However, because wildlife is a renewable resource, we may hunt or trap it responsibly without harming the resource. *The wise use of our resources is called **conservation**. It is wise to use a resource that renews itself to control populations and diseases, and protect habitat.*

Wild animals have a tremendous ability to reproduce (give birth) and increase their numbers. For example, each spring many wild animals breed and give birth to their young. Often, the population becomes greater than the carrying capacity of the habitat. ***Carrying capacity** is the number of each wildlife species that can live within a certain area and remain healthy and not damage the habitat.*

A good way to understand carrying capacity is to imagine putting too many people in a canoe. The canoe has a weight capacity in order to stay afloat. If too many people are piled in the canoe, it will sink. Likewise, if the wildlife carrying capacity of a certain habitat is exceeded, the wild animals and the habitat will suffer. The excess wildlife will likely suffer from disease, stress, or die of starvation. The vegetation of the habitat can be seriously damaged or depleted.

The wildlife manager's task is to help maintain the populations of wild animals at or below the carrying capacity so that no damage is done to the animals' habitat.

Leaving nature to take care of excess wildlife is often cruel and irresponsible. Man has dramatically altered the original landscape. Most of the predators that helped control wildlife populations naturally have been eliminated from Ohio. ***Predators*** are animals that hunt and eat other animals, such as bobcats, wolves, and mountain lions. ***Prey*** is the animal that is hunted and eaten by predators.

Without these natural predators, it is necessary for wildlife professionals to use management practices and conservation to ensure healthy wildlife populations. Nature alone is no longer capable of maintaining populations at acceptable levels in today's world.

## The Role of Hunting and Trapping

An effective tool that helps wildlife managers keep wildlife populations at desired levels is controlled sport hunting or trapping seasons. These seasons allow hunters to kill a certain number of game animals each year. ***Game*** is wildlife that may

*be hunted or trapped according to legal seasons and limits.*

***Sport hunting*** is a legal recreational activity involving the pursuit of wild animals. Controlled sport hunting and trapping are used to remove excess animals without damaging the overall population. Sport hunting and trapping also provide needed funding through the sale of licenses for wildlife management programs. ***Poaching*** is an illegal activity involving the pursuit of any wild animal. No one should tolerate any form of poaching.

In addition to license-fee money, a tax is collected on hunting and trapping supplies. This tax came from the Pittman – Robertson Act. This act is named after two U.S. Congressmen who sponsored a bill in 1937 that placed a tax on firearms, ammunition, and related hunting gear. Money from the tax is issued to each state for wildlife management and other wildlife programs. Every time a hunter buys hunting equipment, a portion of the money will eventually pay for wildlife programs.



### Pittman-Robertson Act

- Actually called the Federal Aid in Wildlife Restoration Act, P-R was sponsored by Senator Key Pittman (Nevada) and Representative A. Willis Robertson (Virginia). President Franklin Delano Roosevelt signed it into law in 1937.
- It provides an excise tax on firearms, ammunition, and archery equipment.
- P-R money is available to the states to buy, develop, maintain, and operate wildlife management areas.
- P-R money is available to the states and is used for surveys and research necessary to restore wildlife.
- P-R money is available to the states and is used to finance Hunter Education programs. These programs reach about 650,000 people a year.
- People who never hunt benefit from P-R too. Wildlife management areas and wetlands are useful to all nature lovers and watchers. Funds go towards management of all species, game and nongame alike.

## Wildlife Management Success Stories

Since the Ohio Fish Commission first began its work in 1873, numerous fish and wildlife species have returned to healthy levels. The wild turkey, white-tailed deer, ducks and geese, river otters, bald eagles, bluebirds, osprey, and many others made a successful comeback as a result of wise use and management of wildlife and habitat.

For example, wild turkeys were trapped in other states and released in Ohio during the late 1950s. As a result, a species once totally eliminated from Ohio reached a population of 200,000 by the year 2000. There were only four breeding pairs of bald eagles in Ohio in 1979. By the year 2000, 63 nesting pairs had been established. In 2000, the white-tailed deer herd was estimated to be at 550,000 after being eliminated from Ohio 100 years earlier.

Thanks to the work of wildlife managers, Ohio is nationally recognized for its trophy bucks and large deer herd. Lake Erie is now known as the “Walleye Capital of the World” and as one of the world’s best smallmouth bass fisheries.

### LOSS OF PRIVATE HUNTING LAND OF CONCERN TO OHIO SPORTSMEN AND WOMEN

In the state of Ohio some wildlife species have been eliminated from certain areas due to a loss of habitat. This reduction of habitat causes concern for sportsmen in other ways. The increased urbanization of our rural areas results in less access to suitable hunting land. As houses devour a landscape that was once predominantly farmland, much of this acreage is no longer available for hunting. Safety concerns with houses, businesses, and roads have resulted in the remaining areas to be closed. These concerns create problems on other huntable areas as well.

The remaining private land receives more pressure from sportsmen and women because they have been forced to find other areas in which to pursue hunting or shooting sports. As a result, many landowners no longer allow hunting because of the increased demand for hunting privileges on their limited land.

Sportsmen and women can help curb this problem by becoming involved in land use issues in their communities. They might also consider joining an organization like the Ohio Izaak Walton League. They are working to protect our rural landscape so that there will always be a place to enjoy our outdoor pursuits. The Ohio Izaak Walton League can be contacted at (419)-465-2283.

Did you know that between 1992 & 1997:

- 829,000 acres of farmland were developed for other uses.
- 10,000 farms comprising 1.1 million acres are no longer in agricultural production.
- 65,000 acres of farmland were lost each year on average.

Information taken from *Protecting Open Space Heritage in Ohio* (POHIO) brochure, an Izaak Walton League publication.

# Chapter 9 Review Questions

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1. An area that supplies everything wildlife needs to live including food, water, cover, and space is called \_\_\_\_\_.
2. Wildlife populations declined dramatically after settlement due to \_\_\_\_\_ destruction and \_\_\_\_\_ hunting.
3. The art of making the land produce and sustain an annual crop of wild game for recreational use and wildlife viewing is called \_\_\_\_\_?
4. Any harmful effect such as, disease, bad weather, or poor habitat that may cause a wildlife population to be limited is called a \_\_\_\_\_?
5. A renewable resource is one that can be \_\_\_\_\_ or \_\_\_\_\_ and is available for continued use.
6. The non-use of a resource is known as \_\_\_\_\_.
7. The wise use of our resources is called \_\_\_\_\_.
8. Hunting helps wildlife populations by removing excess animals without damaging the \_\_\_\_\_.
9. List two ways sportsmen contribute to the funding of wildlife management. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. Why is legal sport hunting a wise use of the wildlife resource: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Where To Go From Here

The Hunter Education Program covers many subject areas related to sport hunting and shooting. Hopefully, you can take the information you have learned and start your life-long participation in the shooting sports. There are many organizations locally, and on the state and national level, to assist you in developing your interests. Private conservation or sportsman's clubs are present in almost every county in Ohio. Many of these clubs have excellent shooting facilities and offer you the opportunity to become involved in wildlife conservation issues. You can find information about local clubs by looking in your phone directory or asking other hunters and sportsmen in your community. There are public and privately owned shooting ranges throughout the state. The Internet is also an excellent source for information on hunting, hunting organizations, and shooting sports clubs. We have compiled the following list of state and national organizations to help you get started, but remember there are many other opportunities available to you.

## State and Local Education Programs

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Trapper Education Courses  
ODNR Division of Wildlife  
Outdoor Skills Section  
2045 Morse Road, Bldg. G-1  
Columbus, OH 43229-6693  
1-800-WILDLIFE

Becoming an Outdoors-Woman  
ODNR Division of Wildlife  
Outdoor Skills Section  
2045 Morse Road, Bldg. G-1  
Columbus, OH 43229-6693  
1-800-WILDLIFE

Women in the Outdoors  
National Wild Turkey Federation  
Edgefield, SC 29824  
803-637-3106

Coonskin Cap Brigade  
Ohio Wildlife Federation  
642 West Broad Street  
Columbus, OH 43215  
614-224-8970

Hunter Education Youth Challenge  
Ohio Wildlife Federation  
3953 Indianola Avenue  
Columbus, OH 43214  
614-268-9924

Ohio 4-H Shooting Sports  
State 4-H Office  
2120 Fyffe Road  
Columbus, OH 43210

Ohio State Trappers Association  
P.O. Box 427  
Dalton, OH 44618  
330-465-8762

Ohio Bowhunters Association  
288 Southwood Avenue  
Columbus, OH 43207  
614-444-6671

Ohio Rifle & Pistol Association  
P.O. Box 43083  
Cincinnati, OH 43243

National Rifle Association  
Ohio Field Representative  
184 Routt Road  
Chillicothe, OH 45601



## State and National Hunting, Shooting, or Conservation Organizations

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U.S. Fish and Wildlife Service  
Department of Interior  
Washington, DC 20240  
[www.fws.gov](http://www.fws.gov)

Safari Club International  
4800 W. Gates Pass Rd.  
Tucson, AZ 85745  
[www.safariclub.org](http://www.safariclub.org)

Ducks Unlimited  
One Waterfowl Way  
Memphis, TN 38120  
901-758-3825  
[www.ducks.org](http://www.ducks.org)

Pheasants Forever  
1783 Buerkle Circle  
St. Paul, MN 55110  
612-773-2000  
[www.pheasantsforever.org](http://www.pheasantsforever.org)

National Wild Turkey Federation  
Edgefield, SC 29824  
803-637-3106  
[www.nwtf.org](http://www.nwtf.org)

Quail Unlimited  
P.O. Box 610  
Edgefield, SC 29824  
[www.qu.org](http://www.qu.org)

Rocky Mountain Elk Foundation  
P.O. Box 8249  
Missoula, MT 59807  
[www.rmef.org](http://www.rmef.org)

The Ruffed Grouse Society  
451 McCormick Rd.  
Coroapolis, PA 15108  
[www.ruffedgrousesociety.org](http://www.ruffedgrousesociety.org)

Wildlife Forever  
P.O. Box 3404  
Minnetonka, MN 55343  
612-936-605  
[www.wildlifeforever.org](http://www.wildlifeforever.org)

International Hunter Education  
Association  
2727 W. 92<sup>nd</sup> Ave.  
Suite 103  
Federal Heights, CO 80260  
303-430-7233  
[www.ihea.com](http://www.ihea.com)

National Shooting Sports Foundation  
Flintlock Ridge Office Center  
11 Mile Hill Rd.  
Newtown, CT 06470  
[www.nssf.org](http://www.nssf.org)

U.S. Sportsmen's Alliance  
801 Kingsmill Parkway  
Columbus, OH 43229  
614-888-4868  
[www.ussportsmen.org](http://www.ussportsmen.org)

National Rifle Association  
11250 Waples Mill Rd.  
Fairfax, VA 22030  
703-267-1000  
[www.nra.org](http://www.nra.org)

Izaak Walton League of America  
707 Conservation Lane  
Gaithersburg, MD 20878  
301-548-0150  
[www.iwla.org](http://www.iwla.org)

National Field Archery Association  
31407 Outer I-10  
Redlands, CA 92373  
800-811-2331  
[www.nfaa-archery.org](http://www.nfaa-archery.org)

National Muzzle Loading Rifle  
Association  
P.O. Box 67  
Friendship, IN 47021  
812-667-5131  
[www.nmlra.org](http://www.nmlra.org)

National Bowhunter Education  
Foundation  
P.O. Box 180757  
Ft. Smith, AR 72918  
479-649-9036  
[www.nbef.org](http://www.nbef.org)

National Trappers Association  
207 W. Jefferson Street  
P.O. Box 3667  
Bloomington, IL 61702  
[www.nationaltrappers.org](http://www.nationaltrappers.org)

Christian Bowhunters of America  
2205 St. Rt. 571 W.  
Greenville, OH 45331  
[www.christianbowhunters.org](http://www.christianbowhunters.org)

Whitetails Unlimited  
P.O. Box 720  
Sturgeon Bay, WI 54235  
[www.whitetailsunlimited.org](http://www.whitetailsunlimited.org)

American Crossbow Federation  
40158 Greenbriar Rd., CR 12  
New Matamoris, OH 45767  
740-934-2108  
[www.horizontalbowhunter.com](http://www.horizontalbowhunter.com)

National Sporting Clays Association  
5931 Roft Rd.  
San Antonio, TX. 78253  
800-877-5338  
[www.mynsca.com](http://www.mynsca.com)

Amateur Trapshooting Association  
601 W. National Rd.  
Vandalia, OH 45377  
937-898-4638  
[www.shootata.com](http://www.shootata.com)

Boy Scouts of America  
(Shooting Sports)  
1325 W. Walnut Hill Lane  
P.O. Box 152079  
Irving, TX 75015  
[www.scouting.org](http://www.scouting.org)

National Skeet Shooting Association  
5931 Roft Rd.  
San Antonio, TX 78253  
800-877-5338  
[www.mynssa.com](http://www.mynssa.com)

USA Shooting Team  
1 Olympic Plaza  
Colorado Springs, CO 80909  
719-578-4890  
[www.usashooting.com](http://www.usashooting.com)

Waterfowl USA  
P.O. Box 50  
Edgefield, SC 29824  
803-637-5767  
[www.waterfowlusa.org](http://www.waterfowlusa.org)

Civilian Marksmanship Program  
P.O. Box 576  
Port Clinton, OH 43452  
888-267-0796  
[www.odcmp.com](http://www.odcmp.com)

# Glossary

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## A

**Action:** *the part that loads, fires, and unloads a firearm.*

**Arrow:** *a slender shaft, or projectile, shot from a bow or crossbow.*

## B

**Bag limit:** *the number of animals that may be legally taken in a single day or season.*

**Ball starter:** *allows a ball to be started down the barrel of a muzzleloader before using the ramrod.*

**Barrel:** *the tube extending from the action that the bullet or shot passes through when a firearm is fired.*

**Blackpowder:** *the fuel that drives the projectile of a muzzleloader.*

**Bore:** *the inside of a barrel.*

**Bowstring:** *the string on a bow that fires the arrow.*

**Broadheads:** *razor-sharp arrow tips used for hunting big game.*

## C

**CPR (cardiopulmonary resuscitation):** *a combination of chest compressions and rescue breathing.*

**Caliber:** *the diameter of a rifle or pistol bore.*

**Capper:** *allows a percussion cap*

*to be easily placed or removed from the nipple of a muzzle-loader.*

**Carrying capacity:** *the number of each wildlife species that can live within a certain area without damaging the species or habitat.*

**Cartridge:** *ammunition for a rifle or handgun.*

**Centerfire:** *ammunition where the primer is in the center of the rear of the case.*

**Choke:** *a narrow section at the muzzle end of the barrel of a shotgun that controls the spread and pattern of the shot.*

**Compound bow:** *a bow that uses a system of cams or pulleys, cables, and the bowstring to shoot the arrow.*

**Conservation:** *the wise use of natural or renewable resources.*

**Crossbow:** *a mechanical bow attached to a stock that fires an arrow.*

## D

**Draw length:** *the measurement it takes to pull the string of a bow to full draw.*

**Draw weight:** *the poundage or strength it takes to pull a bow back to shoot.*

**Dressing:** *the removal of the head,*

*feet, skin, and/or feathers of an animal.*

**Drivers:** *those hunters who walk to move deer in front of them during a deer drive.*

**Dry fire:** *to draw a bow back without an arrow and release the string.*

## E

**Ethics:** *a set of responsible values or principles that aid in making good decisions.*

## F

**Field dressing:** *the removal of only the entrails of a animal to prevent the meat from spoiling.*

**Field points:** *small arrow tips generally used for target shooting.*

**First aid:** *the immediate and temporary care of the victim of an accident or sudden illness until a professional medical person arrives.*

**Fletchings:** *feather or plastic vanes located on an arrow shaft to provide stability in flight for the arrow.*

**Flint:** *a sharp-edged stone used to create a spark when struck against steel.*

**Flintlock:** *a gunlock in which a flint in the hammer strikes a metal plate to produce a spark that ignites the powder.*

# Glossary

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**Frizzen:** *a metal plate that creates sparks when struck by a flint.*

**Frostbite:** *the freezing of body tissue.*

## G

**Game:** *wildlife that may be hunted or trapped according to legal seasons and limits.*

**Gauge:** *a measurement of a shotgun's barrel diameter.*

## H

**Habitat:** *an area that supplies everything wildlife needs to live including food, water, cover and space.*

**Haul line:** *a rope attached to a tree stand and left hanging to the ground in order to attach a firearm or bow and raise or lower it to the stand.*

**Heat exhaustion:** *a condition when your body becomes overheated.*

**Holster:** *a carrier that allows a handgun to be carried for easy access.*

**Hunter orange:** *fluorescent orange, which, when worn by hunters, has helped to decrease the number of hunting incidents.*

**Hypothermia:** *a condition where your body loses heat faster than it can produce heat.*

## I

**In-line percussion ignition system:** *the hammer and nipple are in-line with the barrel and powder charge, on muzzleloaders.*

## L

**Limiting factor:** *any harmful element such as disease, bad weather, or poor habitat that may cause wildlife populations to be limited.*

**Lock:** *(action) the firing assembly usually associated with a muzzleloader.*

**Longbow:** *a hand-drawn, bow.*

## M

**Magazine:** *the part of a repeating firearm that holds the ammunition until needed.*

**Master eye:** *an individual's dominant eye.*

**Muzzle:** *the end of a gun barrel, from which the bullet or shot leaves.*

## N

**Nipple:** *holds the percussion cap in a muzzleloader.*

**Nock:** *located at the back of the arrow and attaches to the bowstring.*

**Nonrenewable resource:** *a resource that can't be replaced after it is used such as coal, oil, or natural gas.*

## P

**PFD:** *personal flotation device, sometimes called a life vest.*

**Percussion cap:** *cap placed on the nipple under the hammer of a muzzleloader. The cap explodes when hit, sending a flame to the main powder charge, which fires the firearm.*

**Physical conditioning:** *the strengthening of the heart, lungs, and muscles.*

**Plucking:** *removing the feathers and leaving the skin on a game bird.*

**Plug:** *a device that is inserted into the shotgun magazine to reduce the number of shells the gun can hold.*

**Poaching:** *An illegal activity involving the pursuit of any wild animal.*

**Predators:** *animals that hunt and eat other animals.*

**Preservation:** *no use of natural resources.*

**Prey:** *the animals that are hunted and eaten by predators.*

**Projectile:** *the bullet/shot that comes out of the muzzle of a gun.*

# Glossary

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**Propagation**: *to raise fish or wildlife in captivity for eventual release into the wild.*

**Pyrodex**: *a modern substitute for blackpowder.*

**Pyrodex pellets**: *are made for use in in-line muzzleloaders.*

## Q

**Quiver**: *device that holds arrows.*

## R

**Ramrod**: *a long rod used to push the ball against the powder in a muzzleloader.*

**Recurve**: *a reverse curvature near the tips of the limbs as in a recurve bow.*

**Regulations**: *rules or laws by which conduct is regulated.*

**Renewable resource**: *a natural resource that can be replaced or replenished and available for continued use such as animals, trees, and other plants.*

**Rifled barrel**: *the tube extending from the action, with spiral grooves cut on the inside, that the bullet passes through when the firearm is fired.*

**Rifled bore**: *spiral grooves cut on the inside of the barrel that causes the bullet to spin.*

**Rifling**: *composed of grooves cut on the inside of a gun barrel in a spiral.*

**Rimfire**: *a type of ammunition where the primer that ignites the powder is located in the **rim** of the cartridge.*

## S

**Safe shooting zones**: *direction in which each hunter in a group will fire, to be agreed upon at the beginning of the hunt.*

**Safety**: *a mechanical device that locks the trigger on a firearm or crossbow to prevent it from firing.*

**Safety harness**: *a full body restraint system that wraps around your chest, waist, and legs.*

**Set trigger**: *muzzleloader trigger designed for target shooting with a very light trigger pull.*

**Shaft**: *the main body of an arrow.*

**Shot**: *pellets made from lead, steel, or other material.*

**Shotshell**: *the shell that holds all the parts of ammunition for shotguns.*

**Sights**: *mechanical devices that aid in aiming a firearm, crossbow, or bow.*

**Sight picture**: *aligned sights that are placed upon a target before firing.*

**Skinning**: *removing the skin from an animal.*

**Sport hunting**: *a legal recreational activity involving the pursuit and/or killing of wild animals.*

**Standers**: *those hunters who stand ready to shoot the deer when they move past them in a deer drive.*

**Stock**: *the action and barrel are attached to the stock of a gun. It is the part that you hold to aim and point a firearm.*

## T

**TIP (Turn In a Poacher)**: *a toll-free hotline designed to involve the public in reporting wildlife violations (1-800-POACHER).*

**Topography**: *changes in elevation, such as hills and valleys.*

**Touchhole**: *a small hole in the side of the barrel of a muzzleloader that allows a small flame through.*

## V

**Violation**: *an act that breaks any regulation or law.*

# Glossary

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## W

**Wad**: *a disc-shaped piece of fiber or plastic that acts as a piston to seal in the gasses that push the projectiles out of the barrel of a shotgun.*

**Wildlife**: *those animals that range freely in their natural environment, not kept in zoos or held as pets or farm animals.*

**Wildlife Management**: *The art of making land produce and sustain an annual crop of wild game for recreational use.*

**Wildlife Officers**: *Law enforcement officers who enforce wildlife laws.*