

Section 2: Archery

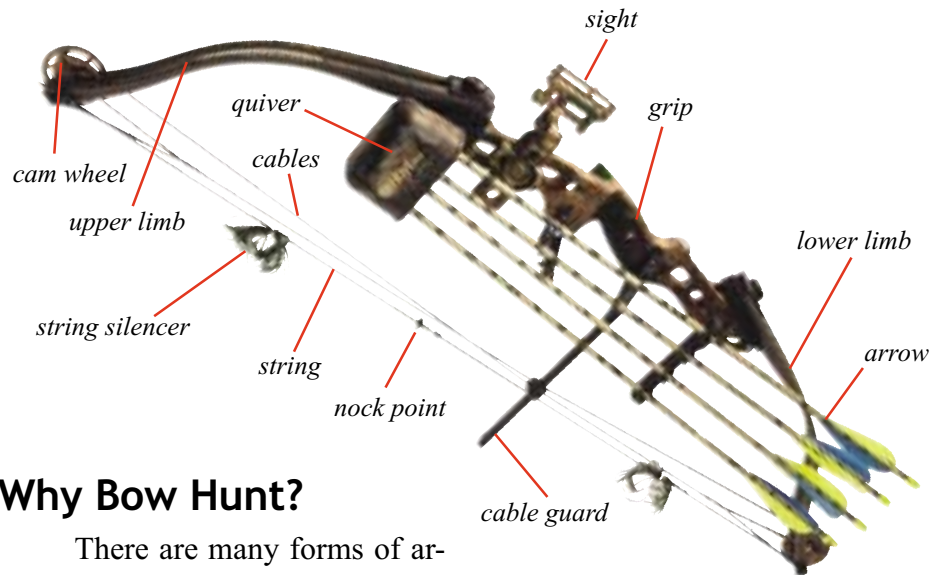
Chapter 5: Archery and Bowhunting

STUDENT PERFORMANCE OBJECTIVES

In this section, the student should learn:

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

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 to game. The archer must also understand the nature and anatomy

of the animal for proper shot placement. To be a successful bow hunter, the archer should understand many things about

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.**

BOWHUNTING KEY TERMS

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

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 *to curve backward or downward*.

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.

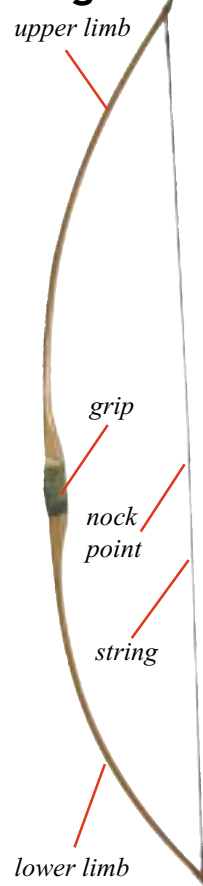
The purpose of the cams is to increase the effective draw weight of the bow, while allowing the archer to hold less draw weight when at the full draw length. Because all of the cams, cables, and strings must work together to function properly, close attention must be given to the setup and tuning of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

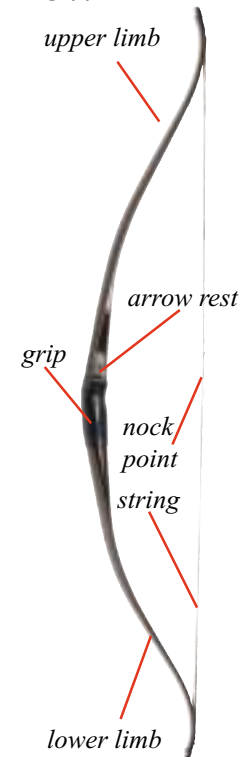
Crossbows

A crossbow is a mechanical bow attached to a stock that fires an arrow. This style of bow is widely used by hunters in Ohio. A crossbow may have straight limbs or have a compound design with limbs mounted horizontally on a stock.

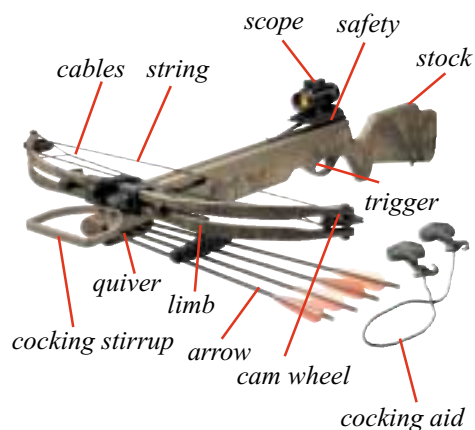
Parts of a Longbow



Parts of a Recurve Bow

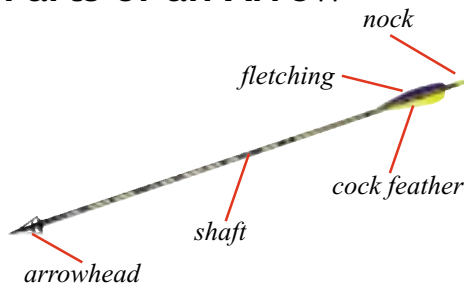


Parts of a Crossbow



Crossbows use shorter arrows that are fired with a release mechanism or trigger. The release mechanism normally 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, 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 ar-

rows. 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 insure 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