

Noble County

Mini 4-H



Archery

Mini 4-H Helper's Page

Welcome to the Mini 4-H Program! Mini 4-H is designed for children in grades K-2 to explore a variety of project activity areas and to interact with caring adults and other children.

Children receive this project activity manual when they enroll in Mini-4-H. This manual, and the manuals on various other topics, will provide fun, age-appropriate learning activities throughout their year(s) in Mini 4-H.

As a Mini 4-H adult helper, your job will be to guide and encourage each child through the activities. A wide range of activities is provided to allow you to choose the ones most appropriate for the children you are working with. It is strongly suggested that you do not complete the activities for them. Instead, help them, guide them, work with them, and let them do all that they possibly can. 4-H believes in allowing children to learn by doing. The Mini 4-H project activities are hands-on learning opportunities designed to provide a meaningful educational experience for youth.

Additionally, the Mini 4-H program is set up to allow children to display a project activity that is based upon information in this manual. Some children may want to exhibit at the 4-H Fair. The 4-H Fair is an exciting week that allows community youth to showcase their enthusiasm for learning. Children may choose to display a project activity they did by themselves or one they did with a group. Other children may choose to showcase their work in other ways, such as displaying it in a special place in their own home.

Mini 4-H is fun! Children will certainly enjoy it. You can have fun too, by guiding and helping as children participate in the program. Encourage and praise the children as they have fun learning and sharing with you. If you have any questions regarding Mini 4-H or other 4-H programs, please contact the Extension office in your county.

Helper's Tips

The Mini 4-H program can be used with individual children, but it works best when used in a group of 2 or more children. Children working cooperatively in groups develop positive images of themselves and their ideas. Other ways adult helpers can maximize the benefits of Mini 4-H are to:

- **Work on a subject interesting to the child by encouraging children to choose the content area.** Look through this manual and choose the project activities based on the interests and skill levels of the children.
- **Relax and have fun.** Some children will want to finish their activities, others may not. There is no need to pressure children of this age to finish an activity, because the real learning takes place while they participate in the activity and interact with others. The finished product should not be the main focus. The knowledge children gain while they explore new areas and experiment with new ideas should be the primary goal.
- **Remain flexible and adapt to the changing needs of the children.** Restlessness or boredom may indicate a need to stop the activity and come back to it later.
- **Encourage children to talk and work with each other.** Children learn best when they are encouraged to freely share their reactions and observations. You may want to ask the children about what they did during an activity, what happened, what was the most difficult, what was the easiest, and what they liked the most.

This manual contains activities for children that allow for a wide range of abilities and provide practice for developing a variety of skills. Many of the projects have additional things to do listed after the activity in the **STRETCHERS** section. This section provides ideas to adapt the activity to better match children's individual skill levels and also provides additional skill practice.

Mini 4-Hers Page

Mini 4-Hers have lots of fun! There are many activities for you to explore. You can try new things. You can share them with your friends and family.

Here are some things to know about 4-H.

The 4-H symbol is a four-leaf clover with an "H" in each leaf. Clover is a plant that grows in fields, yards, and along roadsides. Most clovers have three leaves. Sometimes, if you look very carefully, you may get lucky and find a special clover with four leaves. A four-leaf clover is used as the symbol for 4-H to let everyone know 4-H is a special kind of group.

The 4-H colors are green and white. The four-leaf clover is green and the "H" in each leaf is white.



A group motto is a saying that tells people what is important to the group. The 4-H motto is "To make the best better." When something is better than all of the others, it is the best. Think about a time when you did your best. Maybe you threw a ball farther than you have ever thrown it before. Now, think about some ways you could do better. You may be able to throw farther by practicing for a while or by watching someone who can throw farther than you to see how they throw so far. Even if you throw the ball farther than you have ever thrown it before, there are still ways that you can do better the next time. 4-H encourages you to always try to do better, even if you are doing the best you have ever done.

The 4-H Pledge

A pledge is a promise you make to yourself and to the people around you. The 4-H pledge is in bold print below. Under each line of the pledge there are words telling what the pledge means.

I pledge my **Head** to clearer thinking.



I promise to use my head to make good choices.

my **Heart** to greater loyalty.



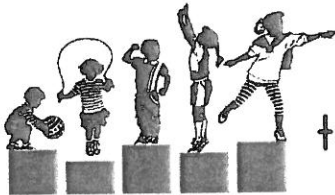
to use my heart to be a good friend.

my **Hands** to larger service, and



to use my hands to do helpful things for others.

my **Health** to better living.



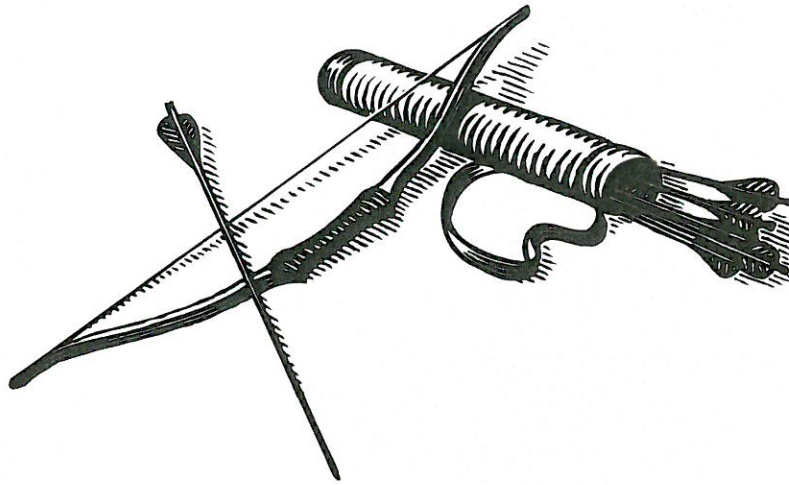
to take care of my body and to show others how to live in a healthy way.

for my club, my community, **my country, and my world.**

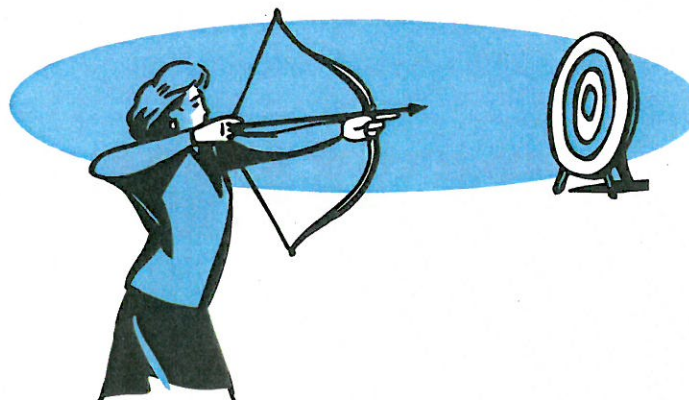


to help my group, my community, my country, and my world be happy and safe for everyone.

Purdue University does not allow Mini 4-H'ers to handle firearms, and they consider a bow a firearm, so Mini 4-H Archery is a poster project. Mini 4-H Archery members are encouraged to attend the 4-H Archery meetings to observe the 4-H members as they shoot their bows, and do exercises to strengthen their upper bodies.



Archery is a fun way to test your skill and coordination, compete against other people or just against yourself, meet people with similar interests and spend time in the outdoors. You may choose to target shoot only, or use your skills to hunt. It is a great family sport.



LONGBOW



The longbow is the original bow, developed by the Medieval English. It is fairly tall and allows the shooter a fairly long draw, back to the jaw. They were made from yew wood, osage orange and mulberry. The string was made of hemp, flax or silk.

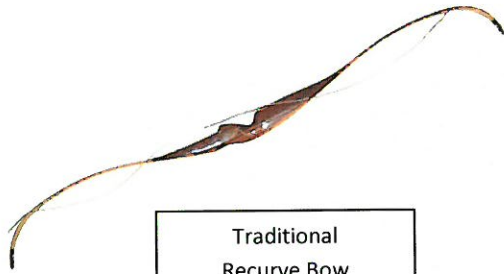
The American Indian used a longbow, using ash, hickory, locust, osage orange, cedar, juniper, oak, walnut, birch, choke cherry, serviceberry and mulberry for the bow, and rawhide, sinew or gut for the string.

The longbow is lighter, quicker to prepare for shooting and shoots more quietly than the recurve or compound bow, but overall the modern bow still shoot a faster, more accurate arrow than the longbow.

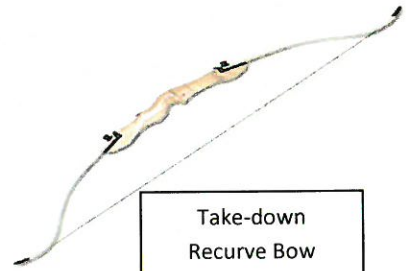
Many "traditionalist" still use the longbow, shooting instinctively (no aiming aid), both for hunting and recreational shooting.



RECURVE BOW



Traditional
Recurve Bow



Take-down
Recurve Bow

The recurve is a more modern bow than the longbow. They are named for the tips of the bow being curved away from the archer when the bow is strung. The string touches a section of the limb when the bow is strung.

Early recurve bows were one piece, but modern recurves are 3 pieces, the middle being called a “riser” and the other 2 pieces being the “upper” and “lower” limbs. These are called “take-down” bows. Most recurve bows have a sight window and arrow rest which aids in aiming.

The string for a recurve bow may be made from natural fibers, but usually is a man made material such as Dacron, Kevlar, or Fastflight. Many recurve shooters prefer Dyneema material.

The recurve bow is the only bow permitted in the Olympics.



COMPOUND BOW



A compound bow is a more modern bow that uses a levering system, usually of cables and pulleys/cams, to bend the limbs. It was first developed in 1966 by Holless Wilbur Allen in Missouri, and in the United States the compound is the dominant form of bow.

The limbs are much stiffer than those of the longbow or recurve, and this stiffness in conjunction with the pulley/cams make it more energy-efficient for the archer. When the archer pulls back on the string, the pulley cams rotate, bending the limbs, and storing more energy at a lower holding weight for the archer. This is referred to as “let off.”

The string of the compound bow is very similar to the recurve bow. All compound bows have a “cable guard” which keeps the cables from becoming tangled. Compound bows also have arrow rests and some kind of aiming aid.



ARROWS



Arrows are pointed projectiles that are shot with a bow. Arrows consist of a shaft with an arrowhead attached to the front end, with fletchings and a nock at the other.

Arrows are made from a variety of material. Arrows used in the longbow are wooden for the most part. Recurve bows can use wooden shafts or heavy aluminum. Compound bow arrows are made of an aluminum alloy, or carbon composite material or fiberglass. Wooden arrows should never be used with a compound bow.

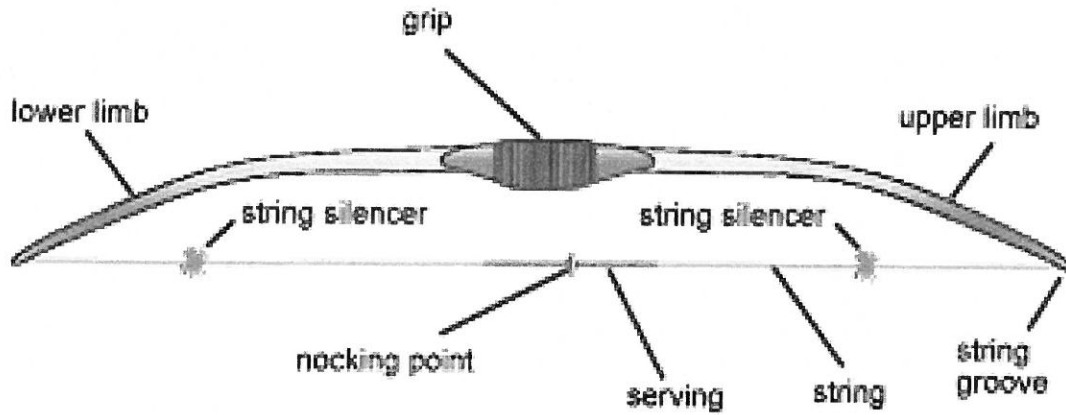
Arrowheads come in a variety of styles: target tips, blunts, field tips, broadheads, etc. Most are used in target shooting, with broadheads being used for hunting.

Nocks are slots cut in the back of the arrow, or separate pieces made from wood or plastic that are then attached to the end of the arrow. Nocks keep the arrow in place on the string as the bow is being drawn. It is common to say “nock an arrow” when one readies a shot.

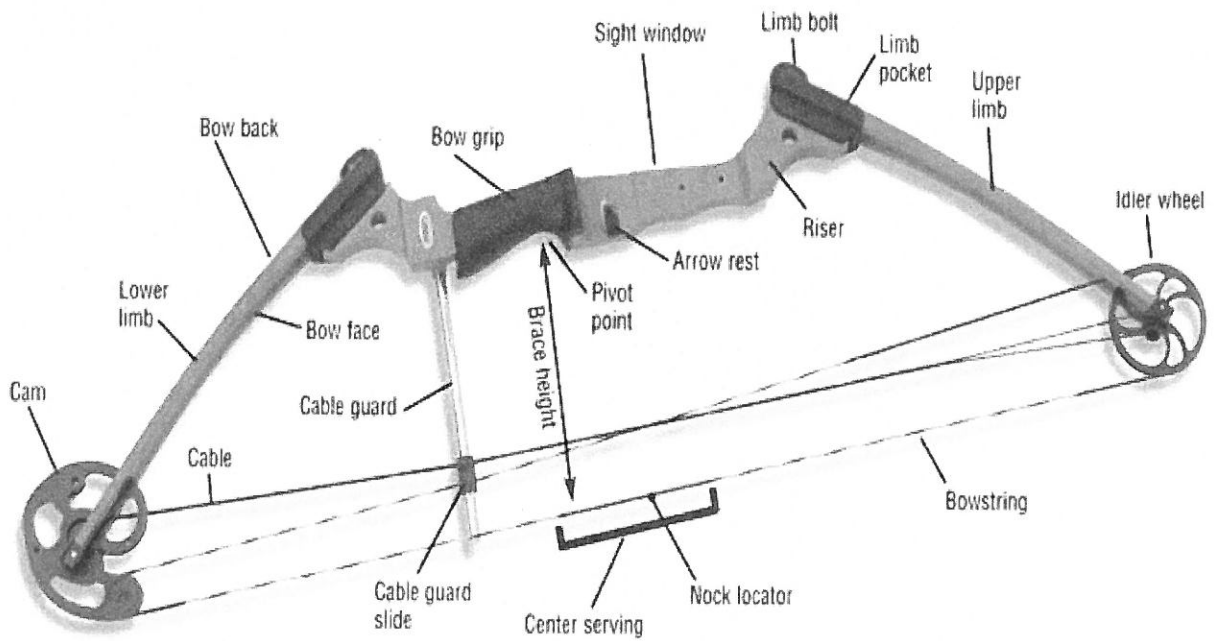
Fletchings are made of two materials: feathers (both natural and artificial) or plastic. Plastic fletchings are called “vanes”. Most arrows will have 3 feathers/vanes attached, with the “cock” feather (usually a different color than the other two) being at a right angle to the nock, so when attached to the string it will not contact the bow when the arrow is released.

Arrows should be matched with the archers draw length (the length of the arm).

Parts of the Longbow

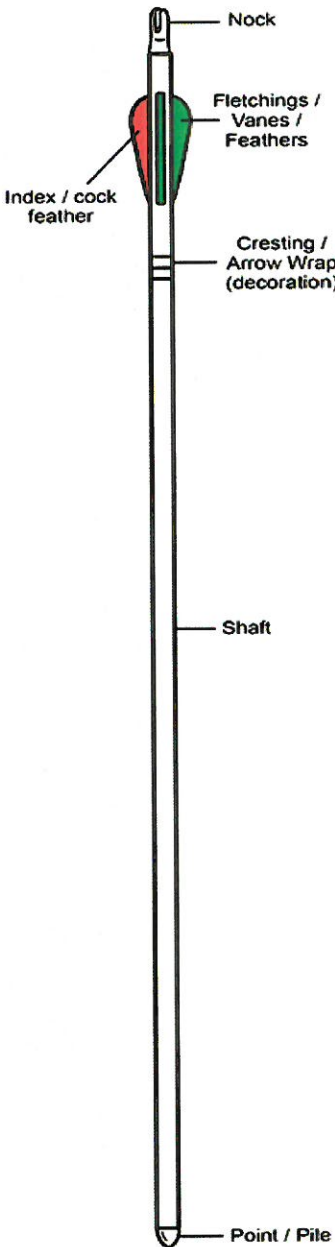
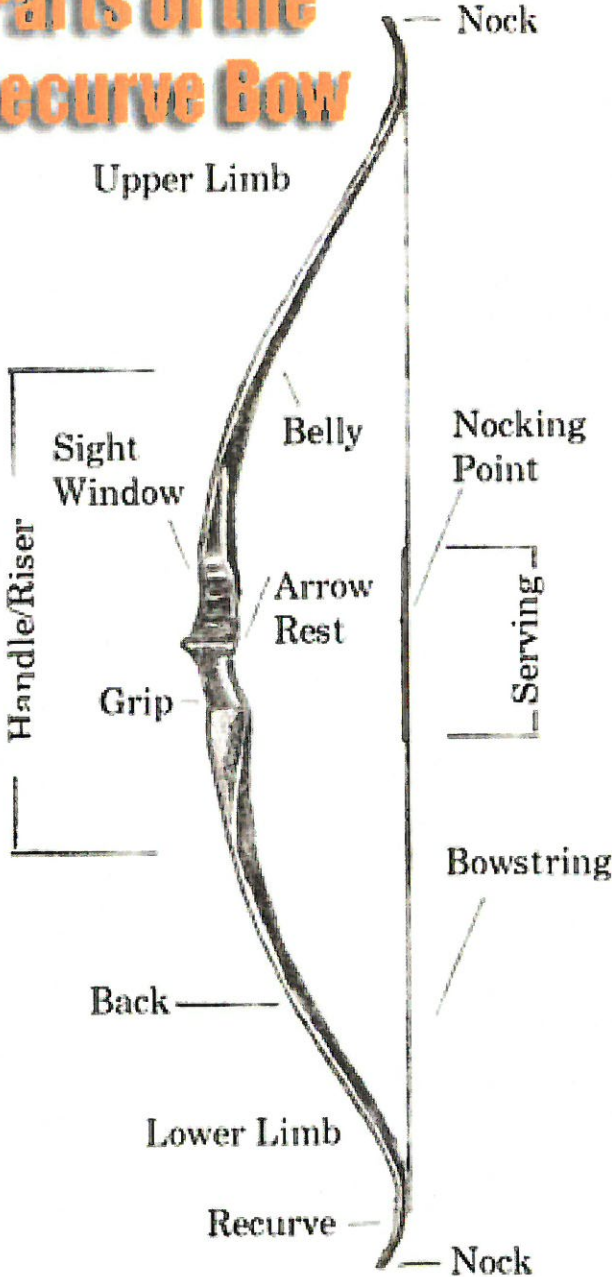


Parts of the Compound Bow



Parts of an Arrow

Parts of the Recurve Bow



EXERCISES TO BUILD YOUR UPPER BODY STRENGTH

You will need to strengthen your upper body to be able to pull a bow string back. Here are some exercises you can do to help you develop those muscles.

*Push-ups strengthen your chest muscles and can be performed 3 ways - against a wall, from your knees and from your toes. Start with 10 and gradually work up to 50.

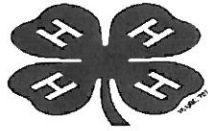
*Hand pushes-put your hands together with your arms horizontal to the floor. Push your hands together as hard as you can for 5 seconds. Start with 10 and gradually work up to 25.

*Chair push-ups-sit on a chair that does not have arms. Put your hands on either side of your chair and push up until your bottom rises off the chair. Hold for 5 seconds. As you get stronger, lift your feet off the floor as you push up also. Start with 10 and gradually work up to 25.

*On the playground at the rock climbing wall or ramp board, pull yourself up using the rope.

*Wheelbarrow walking - do this exercise with a parent and have them take it easy so you don't fall on your face.





4-H Fair Exhibit

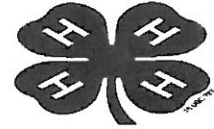


Exhibit – Kindergarten

A poster labeling the parts of a long bow.

Exhibit – 1st Grade:

A poster labeling the parts of a recurve bow. Also include a picture of a quiver, and target.

Exhibit – 2nd Grade:

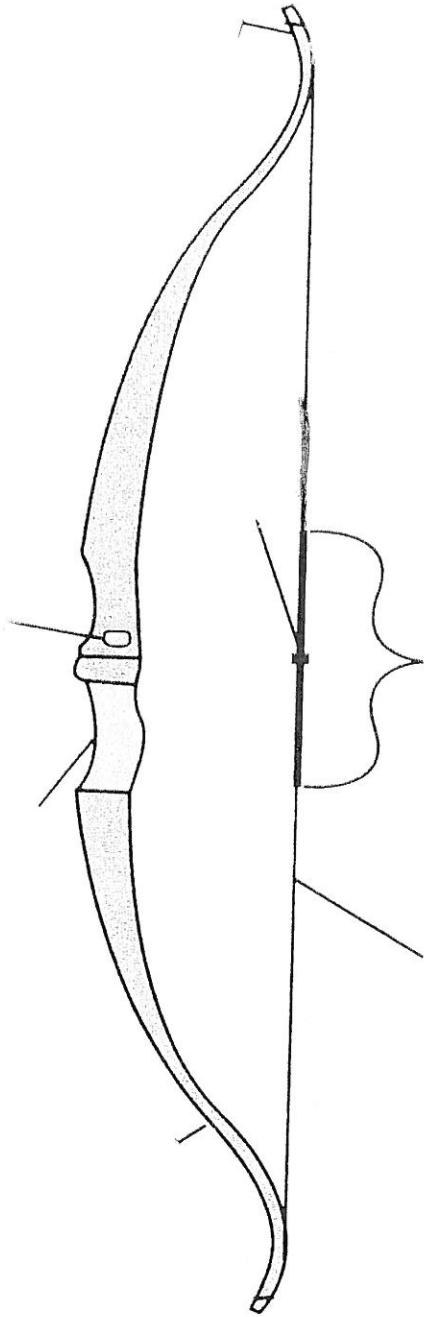
A poster labeling the parts of a compound bow, and the parts of an arrow.

Poster Construction Rules:

All posters are to be covered with clear plastic and have a stiff, non-flexible backing. All posters are to be **14” HIGH x 22” WIDE**. You may use any color of poster board. Each poster project should have a title.

All projects are to have a name label on them. You will receive a Mini 4-H newsletter in the mail prior to the Fair that will contain name labels.

If you have any questions about your project, please call the Extension Office at 636-2111 or 1-800-601-5826.



Use these words to label the parts of a recurve bow

Serving

Grip

Arrow rest

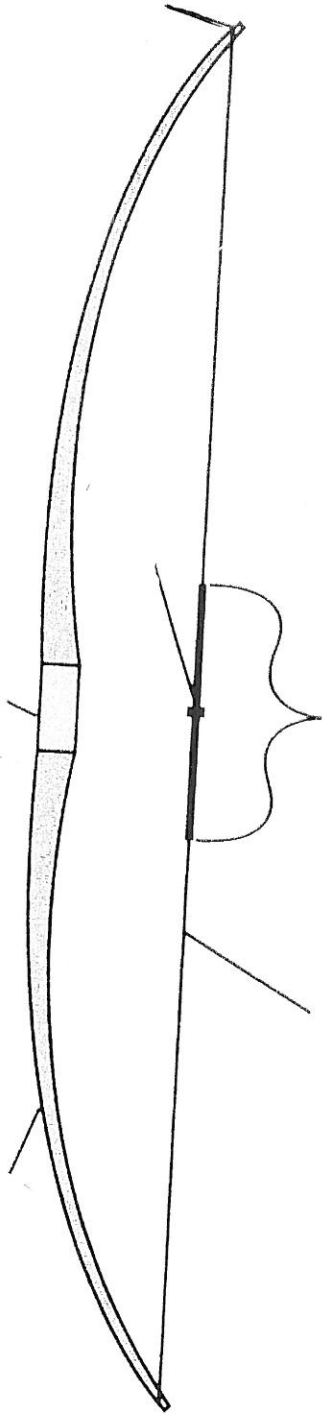
String

Nock

Limb

String nock

Don't
use



Use these words to label the parts of a longbow

Limb

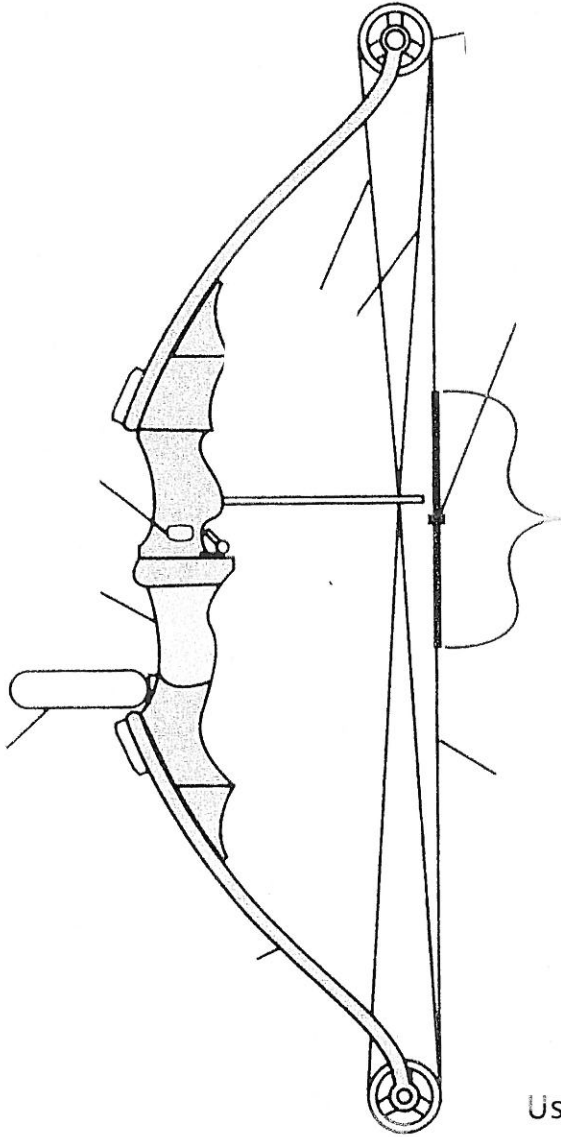
String

Grip

String Nock

Serving

Nock



Use these words to label the parts of a compound bow

Cables

Grip

Limb

Nock

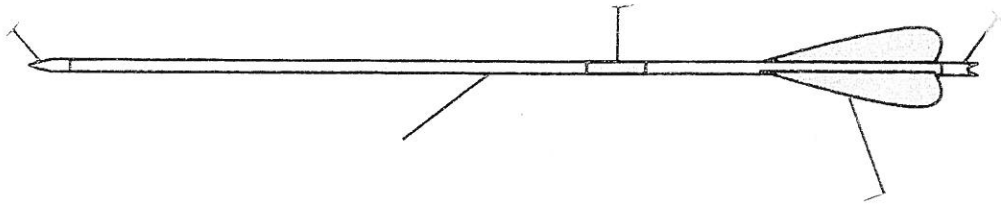
Arrow rest

Stabilizer

Nock

Pulley/Cam

String



Use these words to label the parts of an arrow

Shaft

Nock

Crest

Fletching

Field point



Noble County Mini 4-H Record Sheet

Name _____ Grade in School _____

Address _____

4-H Club _____ Township _____

Number of years in Mini 4-H _____ Number of years in project _____

Member's Signature _____

Parent's Signature _____

Leader's Signature _____

A. Project: _____

B. Estimated number of hours worked to complete project _____

C. Money spent on project:

Cost of supplies: (list) _____

OR

Foods – number of _____

times made _____

D. List the things that you learned while you were doing Mini 4-H:

