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*Determining  
Eye Dominance*



# *Determining Eye Dominance*

## **Lesson Objectives**

Each student will learn which of their eyes are dominant. They will learn the importance of shooting a bow with the bowstring on the same side of the face as the dominant eye.

## **Classroom Application**

This lesson is conducted before archers shoot their first arrows.

## **Discussion**

Most people have one eye that is dominant over the other. When looking with both eyes open, over a pointed finger or looking down an arrow, the dominant eye lines up over the finger or arrow more so than the non-dominant eye. Most people's dominant eye matches their dominant hand. In other words, most right-handed people are right-eye dominant and vice-versa.

A few people have a dominant or master eye that is opposite the hand they use for routine tasks. In other words, a few right-handed people are left-eye dominant and vice versa. This is called cross dominant. According to the archery industry, for every 10 right-handed bows that are sold one left-handed bow is purchased. However, 20-30% of people are left-eye dominant and should be shooting left-handed bows. It is beneficial for the student to know which eye is dominant. This allows the archer to shoot a bow with the drawing hand at the corner of the mouth on the dominant eye side of the face.

Still fewer people have eyes that are equally dominant otherwise known as co-dominant. It is important for an archer to know which of their eyes is dominant or if they are a rare co-dominant-eyed person. A bow's string is drawn to one side of the face or the other. When the bowstring is drawn to the same side of the face as the dominant eye, the archer will be able to enjoy the advantages of keeping both eyes open when shooting. These advantages include: better depth perception, improved peripheral vision, and for some, better balance.

If an archer brings the bow's string to the non-dominant eye-side of the face that archer will likely have to close or wink the dominant eye to remove it from the aiming process for the sake of accuracy. If the dominant eye isn't closed or winked, the archer's arrow will often hit to one side or the other of the intended target. Of course closing an eye prevents the advantages described above for two open eyes.

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An archer with co-dominant eyes might find when shooting with both eyes open, they have to close or wink one eye (opposite the bow string) to avoid missing the target to the right or left.

## **Materials Needed**

- *There should be a line on the floor for the students to stand behind. The waiting line will suffice.*

## **Classroom Set-Up**

Bows and arrows will be unnecessary during this lesson. In fact, this lesson can be performed without an archery range. It will be helpful to have a waiting line for all students to stand behind.

## **Conducting the Lesson**

*Determining and Using the Dominant or "Master" Eye*

**Sample Introduction:** "The title of this lesson is Determining Eye Dominance. If you were invited to an arm wrestling contest, you would wrestle with your strongest arm if you wanted to win. The purpose of the lesson is to help the archer learn which eye is dominant. Knowing this will be a strong clue whether the archer would be best served using a left or a right-handed bow."

Just as most people have more arm strength in the right or left arm, many also have one eye that is more dominant than the other. When viewing something with both eyes open, the dominant eye tends to be in more direct alignment with the object than the other, non-dominant eye. Usually, the dominant eye is the same as the dominant arm. For many people the right eye is dominant and they are also right-handed meaning they write, throw, and hold the bowstring in their right hand. According to reports from the archery industry, only 10% of bows sold are left-handed. However, if all archers matched their drawing or string hand to their dominant or master eye, maybe twice as many people would be shooting left-handed archery equipment.

Matching archery equipment with the dominant eye will allow the archer to shoot with both eyes open. It is highly recommended that an archer shoot with both eyes open. With both eyes open an archer will have better depth perception (binocular vision), complete peripheral vision, and in some cases improved balance. If an archer shoots a

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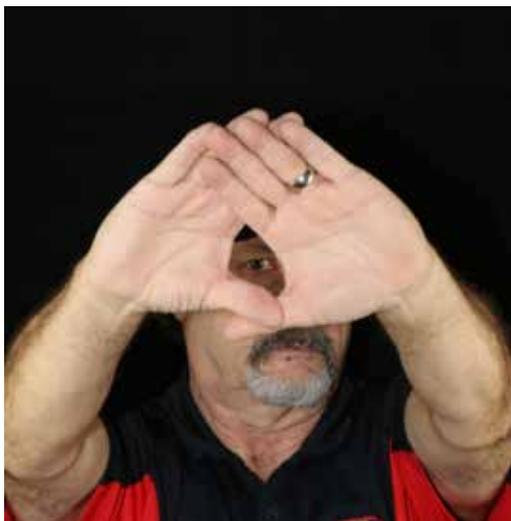
bow opposite the dominant eye (i.e. left-eye dominant person shooting a right-handed bow), the dominant eye must be closed, masked, squinted, or winked to achieve proper form and effective aiming. For a right-handed shooter with a left dominant eye, if the left eye isn't closed, the archer will miss to the left (opposite for left-handed/right-eyed persons). Some right-handed but left-eyed archer may exhibit improper form by leaning the head over the bowstring to aim with the left eye instead of the right.

Early in the archery lesson it is beneficial to help a new archer determine if his dominant eye and string hand are on the same side.

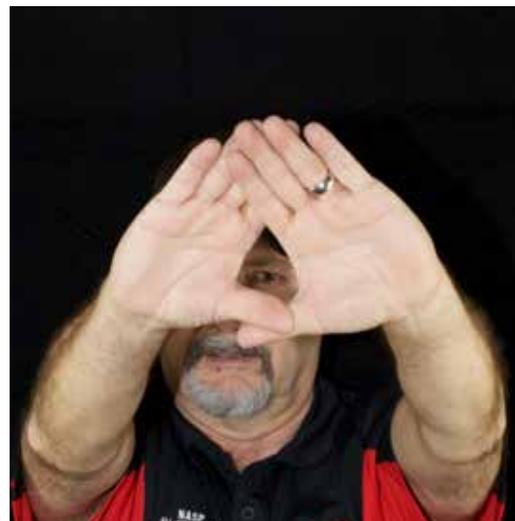
## **Aperture Method**

Optometrists often use the aperture method in determining which of their patient's eyes are dominant. To use this method the students stand squarely facing and 3-4 yards or meters from the instructor. The student turns flat palms toward the instructor with fingers pointed up, as if using both hands to motion "stop". Next, by overlapping fingers and thumbs of both hands, make a golf-ball sized window or 'aperture'. With both eyes open the student looks through the aperture towards the instructor. The instructor will be able to see the student's dominant eye through this aperture. Likewise, the student can perform this exercise in front of a mirror and see their dominant eye in the aperture. Note: If looking in a mirror, remember the mirror reverses (right vs. left) the image.

Have students pair up and move 3-4 yards or meters apart and try the aperture method on each other. **(Figure 2.1 - Right Eye Dominant & 2.2 Left-Eye Dominant)**



**Fig. 2.1**



**Fig. 2.2**

If you or the student is uncertain about which eye is dominant there are two other exercises that can be tried, described in **(Teaching Suggestions 2.1 - Point & Wink & 2.2 - Point at the Instructor's Nose)**

Encourage students to select a bow that allows them to match their dominant eye. In other words, an archer that is right eye dominant should use a right-handed bow. This is a bow where the right hand holds the bowstring and the bow grip is in the left hand. If the student is left-eye dominant they should use a left-handed bow, one that causes the archer to hold the bowstring in the left hand. If the archer's dominant eye doesn't match their dominant hand, still encourage without demanding, them to use a bow that allows the string to come to the dominant eye side of the face. **(Teaching Suggestion 2.3 - Encourage Matching Dominant Eye and Drawing Hand)**



## Checks for Understanding

*Name three advantages of shooting with both eyes open.*

*When looking through the aperture do the arms remain outstretched or move towards the eye?*

*Is a cross-dominant person required to shoot a bow they are uncomfortable shooting?*



### Teaching Suggestion 2.1 Point and Wink

Have students stand squarely facing a small, book-sized object about 10-50 yards or meters away. With both eyes open, raise either the left or right hand and point at the small object. Then alternatively close one eye and then the other. When the dominant eye is closed the object or the pointing finger will appear to move.



### Teaching Suggestion 2.2 Point at the Instructor's Nose

From a distance of 3-4 yards or meters have archers stand squarely in front of the instructor. Then, the archer will raise either the left or right hand and point at the instructor's nose. The instructor will see the dominant eye line up over the pointed finger.



### Teaching Suggestion 2.3 Encourage Matching Dominant Eye & Drawing Hand

Students should be encouraged to use a bow that requires the bowstring to be brought to the dominant eye side of the face. Both hands do something important in archery. One hand holds the bowstring and the other the bow. It is however possible for an archer to enjoy success and accuracy even if the bowstring and the non-dominant eye are matched.