

**7th & 8th Grade PLTW Medical Detectives
Lesson 3, Part 3: April 8, 2020**

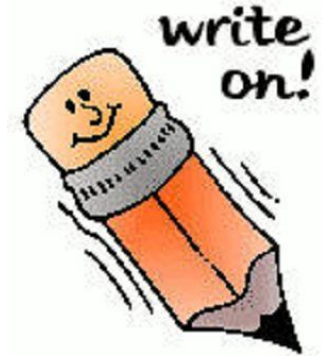
Learning Target:

Students will learn what a dominant eye is and how to determine which of their eyes is dominant.

Warm-Ups:

Quickwrite:

1. On a piece of paper, write down anything you know, or think you know, about what it means to have a dominant eye.
2. Did you know that everyone has a dominant eye? How can you find out which one of your eyes is dominant?



Lesson Introduction and Background Information:

What Does it Mean to Have a Dominant Eye?

Definition -- The dominant eye is the one that provides a slightly greater degree of input to the visual part of your brain and more accurately relays information about the location of objects.

One eye will be the lead eye or the preferred eye.

Research has shown that a person who is right handed will be have a greater chance of having a dominant right eye, approximately 2.5 times greater than the odds of having a dominant left eye.

Practice:

Now let's conduct a little experiment to determine your dominant eye. Please watch the video and follow the directions below. [Dominant Eye Video](#)

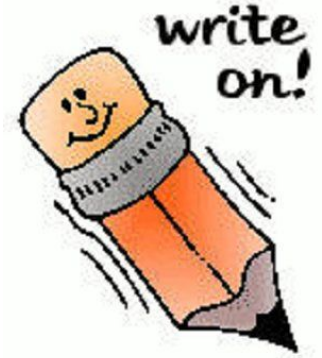
1. Extend your arms out in front of you and create a triangular opening between your thumbs and forefingers by placing your hands together at a 45-degree angle (see the video).
2. With both eyes open, center this triangular opening on a distant object--such as a wall clock, door knob or picture, something simple.
3. Close your left eye.
4. If the object stays centered, your right eye (the one that's open) is your dominant eye. If the object is no longer framed by your hands, your left eye is your dominant eye. If the object does not move out of the triangle, make the triangle a little smaller.

Practice:

1. Following the directions, share this experiment with someone, or several people, in your home and help them to determine which of their eyes is dominant.
2. Remember the results and determine how many of the people who did the experiment had a right-eye dominant or left-eye dominant.
3. What's the number of people who were right-eye dominant and right handed? Left-eye dominant and left handed?



Self Assessment:



Please write your answers down on paper.

1. What were the results of your experiment? Does your dominant eye match which hand is dominant?
2. What were the results of the experiment with others? Did their dominant eye match which hand is dominant?
3. In what ways do we use our dominant eye?

Extend Your Learning/Continued Practice:

Check out the optical illusion pictures below paying attention to how your eyes are focusing on them. Try to create an optical illusion of your own or recreate one from below.

