

SCIENCE | TECHNOLOGY | ENGINEERING | MATH

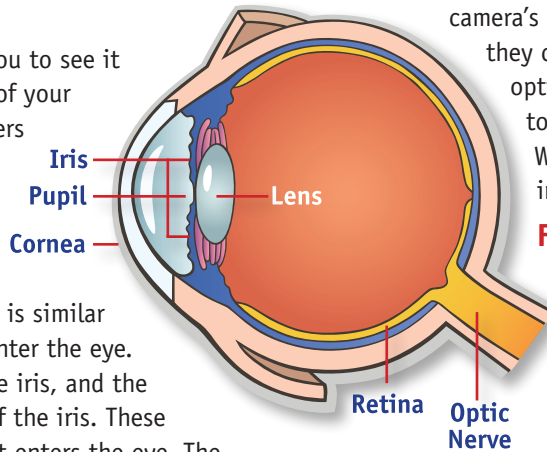
This special Newspaper In Education feature is brought to you by the St. Louis American Foundation, the Missouri Press Foundation and this newspaper.

Growing future scientists, technologists, engineers, and mathematicians with the newspaper!

How Does the Eye Work?

Did you know that in order for you to see it takes more than 2 million parts of your eye working together? Light enters the eye through the cornea and lens at the front of the eye and ends up at the retina at the back of the eye.

The cornea is see-through and it is similar to a window. It allows light to enter the eye. The colored part of the eye is the iris, and the pupil is the hole in the middle of the iris. These two parts control how much light enters the eye. The lens bends the light so that it can create an image when



it reaches the retina. The retina's job is to turn light into signals about images that the brain can understand.

Think about a digital camera. The retina is like the camera's processor that interprets the images so they can appear on the camera's screen. The optic nerve then transmits those images to the camera's memory card for storage. We see things when our eyes send light information about objects to our brain.

For more information: Check out this website to learn more about sight and eye health—<http://kidshealth.org/kid/htbw/eyes.html>

Learning Standards: I can read nonfiction text for background information. CCS.ELA-LiteracyCCRA.R.2, CCS.ELA-Literacy.CCRA.L.6

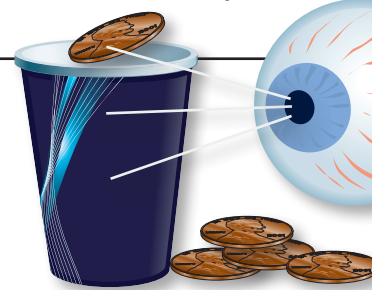
Become A Mad Scientist!

Depth perception is the ability to judge how near or far objects are. Do you think you have better depth perception focusing with one eye, or using both eyes? In this experiment, you will test your theory.

Materials Needed:

- Five Pennies • Small Paper Cup • Somewhere to Sit (preferably a desk or table) • A Partner

- 1 Place the cup in front of your partner—about 2-3 feet away from him or her.
- 2 Ask your partner to close one eye.
- 3 Hold one of the pennies about 18 inches above the table. Move it around slowly.
- 4 Have your partner tell you when the penny is over the cup, and drop it into the cup.
- 5 Repeat this experiment with all five pennies. Record the results. Next, try the experiment allowing your partner to keep both eyes open. Record the results.



Analyze the Results: Do you have better depth perception using one or both eyes?

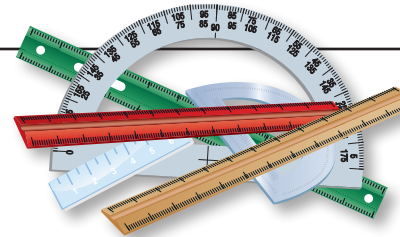
Learning Standards: I can follow step-by-step instructions to complete an experiment. I can analyze the results. CCS.ELA-Literacy.CCRA.R.1

Go Figure!

Did you know the sense of sight is important for mathematics? Sight allows us to notice things such as size, color, shape, distance, etc. All of these are important math concepts.



For this activity, you will use items in your classroom. Each student will use an item found in his backpack or desk. Place all items in the center of the room. First, sort all of the items by size: small, medium, and large. How many items are in each category? Next, sort the items by color. How many colors are



represented? Then, sort the objects by shape. How many shapes are represented? Which group had the most shapes? Finally, line the objects up to create a straight line. How far is the line? What is the total distance?

Learning Standards: I can classify and sort items by a common trait. CCS.MathContent.K.MD.B3

Extra! Read All About It!

Use your newspaper to complete the following activities.

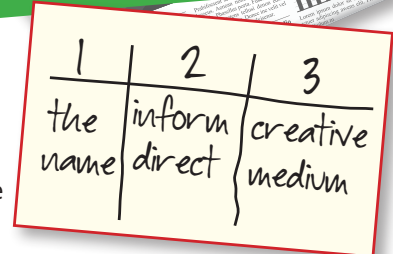
Activity One: Syllable Sort.

Create a three-columned chart labeled: one syllable, two syllable, three syllable. Find five words for each column.

Activity Two: Scavenger Hunt using the newspaper:

Find the following:

- an article about national news
- an article about local news
- an article about education
- an example of good news in the community



- an interesting photo and write a creative story about it.

Learning Standards:

I can use the newspaper to find information. I can create and identify patterns. I can determine the number of syllables in a word. CCS.ELA-Literacy.CCRA.W.4, CCS.ELA-LiteracyCCRA.R.2