



SfS Away from the Classroom!

SCIENCE
FROM SCIENTISTS

AP14: Eye Dissection (Recommended for Grades 3-8)

Please use the following resources to learn about cow eye anatomy!

Watch this Video:

<https://www.pbslearningmedia.org/resource/idptv11.sci.life.stru.living.d4keye/eyes/>

Answer these questions:

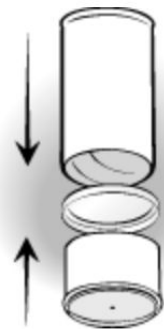
- How does the iris respond to different amounts of light?
- What structure(s) in the eye help you detect black, white and low light? Colors and bright lights?
- How do other parts of our face protect our eyes?

Activities: Follow these directions to create a pinhole camera and learn more about the eye.

You will need:

<ul style="list-style-type: none"> • Empty pringles can or paper towel roll • Marker 	<ul style="list-style-type: none"> • Scissors • Pushpin • Masking tape 	<ul style="list-style-type: none"> • Aluminum foil • Scissors • Ruler
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1. Take the plastic lid off the Pringles® can and wipe out the inside. (Save the lid!)
2. Draw a line with the marker all the way around the can, about 2 inches up from the bottom.
 - a. Have a grown-up cut along that line so the tube is in two pieces.
3. The shorter bottom piece has a metal end. With the thumbtack, make a hole in the center of the metal.
4. We're going to use the plastic lid as a screen.
 - a. If your lid is clear, you may need to apply a piece of wax paper, white tissue paper, or vellum to the lid to act as a translucent screen.
5. Put the plastic lid onto the shorter piece. Put the longer piece back on top. Tape all the pieces together. (see picture on right)



6. To keep light out of the tube, use a piece of aluminum foil that's about 1 foot long. Tape one end of the foil to the tube. Wrap the foil all the way around the tube twice, then tape the loose edge of the foil closed. If you have extra foil at the top, just tuck it neatly inside the tube.



7. Go outside on a sunny day. Close one eye and hold the tube up to your other eye. You want the inside of the tube to be as dark as possible-so cup your hands around the opening of the tube if you need to. Look around your yard through the tube.
 - a. The lid makes a screen that shows you upside-down color pictures!

Follow these steps to conduct your own virtual cow eye dissection

https://www.exploratorium.edu/learning_studio/cow_eye/doi.html

Make observations & use Claims, Evidence, and Reasoning!

1. **Claim:** The different structures of the eye each play an important role in helping us see and process information
 - **Evidence:**

 - **Reasoning:**

2. **Claim:** Images enter the eye upside-down
 - **Evidence:**

 - **Reasoning:**