

1st Grade Activity: Animal Eyes

Animals have many amazing adaptations that help them survive. Owls, moles, and insects have eyes like us, but how they see with their eyes is very different from how we see.
(NGSS Disciplinary Core Ideas 1.LS1.A and 1.LS1.D Structure and Function, Information Processing)

Pre-Activity Questions

- What are the 5 senses?
- What kinds of information do animals need to grow and survive?
- Why do animals have different types of eyes?

Activity

- Let's use our eyes to explore our surroundings! Place your hands around your eyes like binoculars. "What happens to the way you see when you do this?"
- How do OWLS, MOLES, and INSECTS see?
 - **OWLS** have similar vision to binoculars, it helps them see far distances for hunting. They are unable to see around them (and their eyes don't move from side to side or up and down) so their head turns almost all the way around to detect predators. Watch [this video of a Great Horned Owl hunting](#).
 - **MOLES** have very small eyes, they are adapted to hunt for worms and small arthropods underground. Check out [this great video about moles!](#)
 - **INSECTS** have compound eyes. They are made up of many tiny light detectors, allowing them to spot very fast movements and see in a wide angle all around them. Researchers have created [tiny cameras that mimic insect eyes!](#)

Create your Own Animal Eyes!

Materials

- Toilet paper tubes
- Markers
- Construction paper
- Paper clip
- Pencil
- Glue or tape

Owl Eyes

1. Take two **toilet paper tubes**, decorate the tubes with **markers** and **tape** them together.

Mole Eyes

1. Decorate two **toilet paper tubes** with **markers**.
2. Cover one end of each tube with **construction paper** and **tape** it.
3. Poke a tiny hole through the construction paper with a **paperclip**.
4. Tape the two tubes together.

Insect Eyes

1. Take one **toilet paper tube**, decorate with **markers**.
2. Roll **paper** around a **pencil** to create a paper “straw” the same length as the tube (use a little **tape** to secure).
3. Make enough paper straws to fill the tube and use a little glue or tape to hold them in place.



Use your hands as binoculars. What's different about what you see?



Owl Eyes



Mole Eyes



Insect Eyes: Use a pencil to make a paper “straw”



Insect Eyes