



JONES VALLEY TEACHING FARM

AT-HOME ACTIVITIES

Worm Whisperer

3rd Grade – 5th Grade

DESCRIPTION and OBJECTIVE:

Did you know a worm has FIVE “hearts”? Use this activity to explore the anatomy of a common earthworm.

MATERIALS NEEDED:

- ⇒ Earthworms
- ⇒ Trowel (or something to dig with)
- ⇒ Plastic container of moist dirt
- ⇒ Paper towels
- ⇒ Water
- ⇒ Magnifying glass/phone camera
- ⇒ Cotton swab
- ⇒ Alcohol or fingernail polish remover
- ⇒ Flashlight

LESSON / ACTIVITY:

- ⇒ Before beginning the activity, head outside to find a few worms to observe. You may need to dig around in the soil a bit before finding them. TIP: Worms typically hang out in moist soil!
 - As you find them, place them in a container of moist dirt.
- ⇒ Once you have found a few worms, return inside and gather the rest of the materials listed above. Moisten a couple of paper towels and lay them on a surface – a countertop, table or plate works great.
 - Remove the worms from the soil and place them on the paper towel. Try your best to keep worms out of direct light!
- ⇒ First, use your magnifying glass to look for a wide, thick band around the worm's body. This band is called the **clitellum**. It is closest to the head, or **anterior**. It



houses some of the worm's reproductive organs and once fertilized, it slides off the worm's body and becomes a cocoon for the eggs.

- Ask your student, "What color is the clitellum? Do all of the worms have one? Do they all look the same?"
- ⇒ Now, look at the head with your magnifying glass. See if you can find the mouth, with its overhanging lip. Worms don't have teeth! They grind their food using a **gullet**.
 - Ask your student, "Can you think of another animal that uses a gullet?" (*chicken*)
- ⇒ Notice that the worm's body is made up of **segments**, small circular lines that run down the worm's body. Each segment has two pairs of special bristles (called **setae**). Wet your fingers and run them down the worm's body to feel the rough setae. You could also put the worm on paper and listen for the sound of the setae brushing against the paper.
 - Ask your student, "Can you feel the setae? Why does a worm have setae? How is it used?" (*to help the worms move through soil*)
- ⇒ Next, let the worm crawl freely on the paper towel. When it wants to move, it becomes long and thin. If you touch it, the worm contracts and becomes thicker. The worm has two layers of muscles; those that run around the body (much like the segments) and those that run from the top to the bottom of the worm.
 - Ask your student, "Does this movement remind you of anything?"
- ⇒ Then, dip a cotton swab in alcohol or nail polish remover. Hold the swab close to the worm's head, but **DON'T** touch the worm with the strong chemical.
 - Ask your student, "What happens when the swab is near the head? Does the worm react? Can the worm detect where the fumes are? How does it react?"
 - Worms don't have lungs – they actually breathe through their skin! Worms react to the strong chemical on the cotton swab because they do not want to absorb it into their circulatory system.
- ⇒ Finally, take your flashlight and shine it around the worm's head.
 - Ask your student, "Do they react? How? Why do you think they react this way?"
 - Worms don't have eyes. Instead, they have light receptors all over their skin which tells them if it is light or dark. Ask your student, "Why might this be important to a worm?"
- ⇒ When finished, return the earthworms to the soil where you found them and wash your hands.
 - Reference the links below for more fun facts about worms and additional worm-related activities.

ADDITIONAL INFORMATION:

- ⇒ Check out the links below to learn more about topics related to this activity!
 - [Life of an Earthworm](#)
 - [Herman the Worm](#)

