

No-Tech Science for ‘Home Bound’ Students...

“The World of Worms” (1st—6th grade)

Objectives and Goals: To get students outside to explore soil wildlife and in particular, earthworms, an animal that can change it’s environment.

Materials Needed: All materials are optional

- A journal and pencil to record observations with words or pictures.
- Water can
- Newspaper or clean cardboard
- Magnifying glass

Background Information:

Worms are an animal that has no backbone (invertebrate). We have a backbone (vertebrate). Earthworms breathes through their skin which must always be moist (not wet) or they will die. They do not have eyes but the are sensitive to dark and light, hot and cold and vibrations. With lots of muscle bands around their body, they burrow through the soil, eating decaying leaves and other matter, keeping the soil rich and healthy for plants.

Procedure:

Go outside to look for earthworms. In healthy earthworms can easily be found after a rainfall. (If there is not rain in the forecast, you can attract worms to the soil surface. Choose an area where the soil is bare; a garden, flower bed or wooded area is good. A day or two before the exploration, moisten the bare ground with water and cover it with dampened newspaper or cardboard and weight it with stones/bricks to keep it secure. When you return to explore, lift the covering.

- What do your see? If the soil is healthy, there should be earthworms.
- Observe the worms moving. How do they move?
- Are there other animals crawling around in the soil or under the covering?
- How many different ‘critters’ can you find?

Record your observations in your journal.

Extensions:

- Create an in home worm composting box to recycle kitchen vegetable scraps.
- Continue your observations by pressing a few wilted lettuce pieces or soft, over-ripe sliced apple pieces into the soil under the newspaper/ cardboard. (Since earthworms have no teeth their food must be soft almost ‘mushy’ for them to eat it. If your apples pieces are too hard to attract the worms and other soil critters, place the pieces in a microwave for one minute to soften. Allow the pieces to cool completely before placing them in the soil for the soils. Return the cover.) Return in a few days to see what has come to the food. If you are fearful that neighborhood animals may discover the food, secure the cover to the ground with heavy items; bricks, rocks etc.

NOTE: See our website for supportive materials <https://www.athensswcd.org/>