



Exploring Earthworms with Dirt Art 4-6

Art and nature come together to bring learning to life! Inspired by activities found in our [Dirt Camp](#) Enrichment Program, learners create works of art that showcase the little earthworm's big role in keeping soil healthy.

Whether you're celebrating Earth Day or preparing your next science lesson, this activity is one your learners will be excited to dig into!



HANDS-ON STEM EDUCATION

For over 30 years, PCS Edventures has inspired students to develop a passion for Science, Technology, Engineering and Mathematics (STEM), focusing our efforts on making learning and discovery a fun and interactive process for grades K-12.

- Classroom
- After-School
- Home Learning

BACKGROUND INFORMATION

What are Earthworms?

Have you ever seen an earthworm wiggling in the dirt? Take a closer look and you may notice that these creatures are quite different from other animals.

Earthworms do not have any bones, legs, eyes, or even lungs! Instead, they crawl their way through soil blindly, breathing through their moist skin. You won't find many earthworms sunbathing, as their skin is sensitive to light and can dry out if exposed for too long. That's why they prefer to spend their time underground. Their long, soft bodies are one big muscle covered with tiny bristles called setae. Setae help earthworms tunnel through loose soil.

How do Earthworms Help the Environment?

Though small in size, these invertebrates make a big impact. In fact, gardeners consider earthworms welcomed guests among their crops. Thanks to their great appetite, these consumers eat up to a third of their weight in food each day and transport plenty of nutrients into the soil via their waste. As they tunnel through the soil, they create pockets of air that break up thatch, a layer of dead leaves and other organic matter piled on the surface of the soil. This allows water to flow into the ground and lets plants' roots spread out and grow. This aerated soil means more healthy plant growth. Thanks for all your hard work, little earthworms!



Materials:

Group Materials for 4-5 Students:

- 2 Deli Containers filled with $\frac{1}{4}$ cup glue mixed with $\frac{1}{4}$ cup water
- 1 Deli Container filled with $\frac{1}{4}$ cup topsoil
- 1 Deli Container filled with $\frac{1}{4}$ cup sand
- 1 Spoon
- Colored Pencils
- Scissors

Individual Materials:

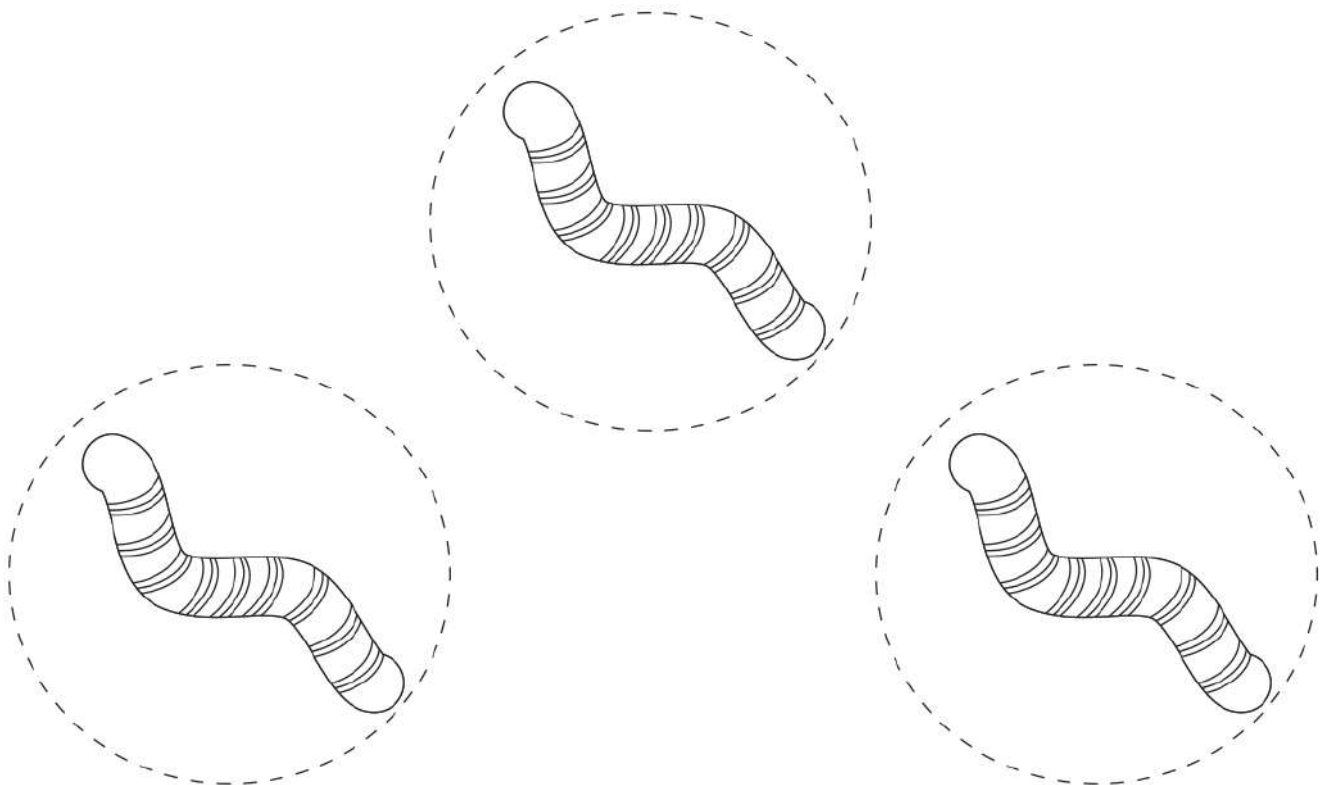
- Earthworm Cut-Outs (1 per person)
- Blank Paper (1 per person)
- Paintbrush (1 per person)
- Pencils (1 per person)
- Toilet Paper (2 strips of 3 squares per person)

Want more of a challenge?

In Part 2 Step 6: Go outside and find a flower, leaf or plant to glue onto your aboveground scene.

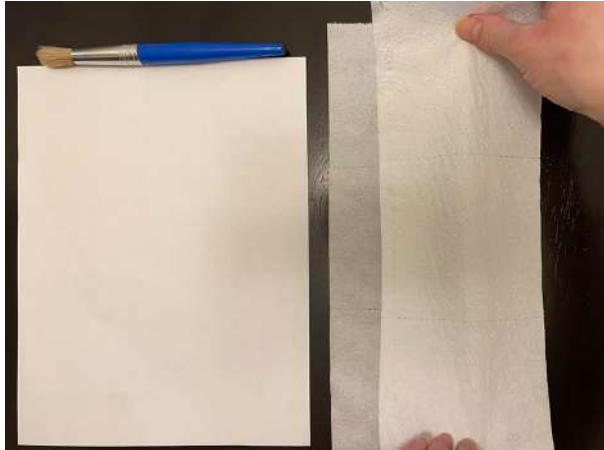
Draw the scene to match your local environment!

Earthworm Cut-Outs:



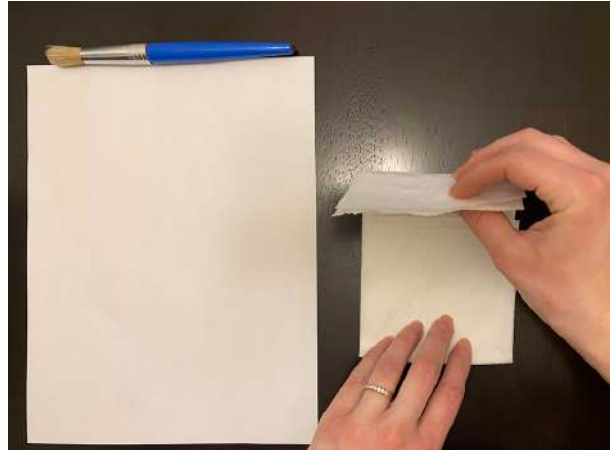
Step-By-Step Instructions:

Part 1



Step 1:

Place the two sheets of toilet paper on top of one another.



Step 2:

Fold the squares of toilet paper along the tear lines – one on top of the other – until you see only one square.



Step 3:

Fold the square into three equal parts. Tear the square along the fold lines to make long strips.



Step 4:

Write your name on the blank paper and flip it over. Lay one strip lengthwise on the paper. Lightly paint the glue mixture over the strip.



Step 5:
Lay a new strip halfway over the last.
Paint over the strip with the glue mixture.



Step 6:
Continue overlapping strips and painting with glue until **about half** the paper is covered.
Set aside to dry.

Step-By-Step Instructions:

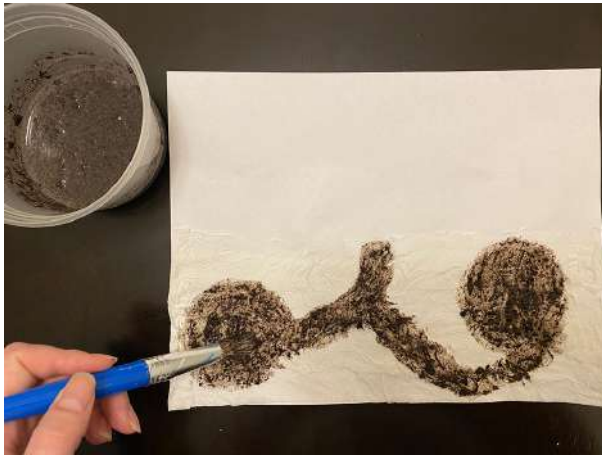
Part 2



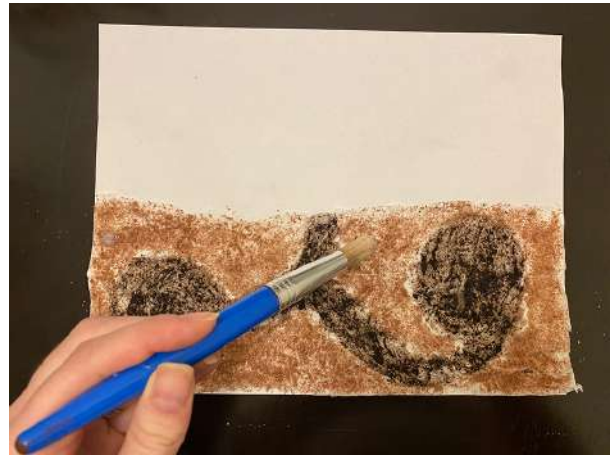
Step 1:
Add five spoonfuls of topsoil into one Deli Container of the glue mixture.
Stir ten times.



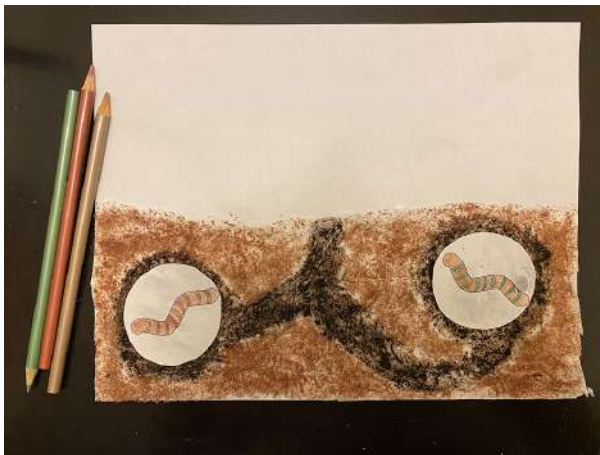
Step 2:
Add five spoonfuls of sand into the other Deli Container of glue.
Stir ten times.



Step 3:
Paint with the darker topsoil to make tunnels and chambers for the earthworms to live.



Step 4:
Fill in the rest of the underground scene with sand.



Step 5:
Color and cut out the Earthworm Cut-Outs. Place them into the tunnels and chambers to dig, nest and play!



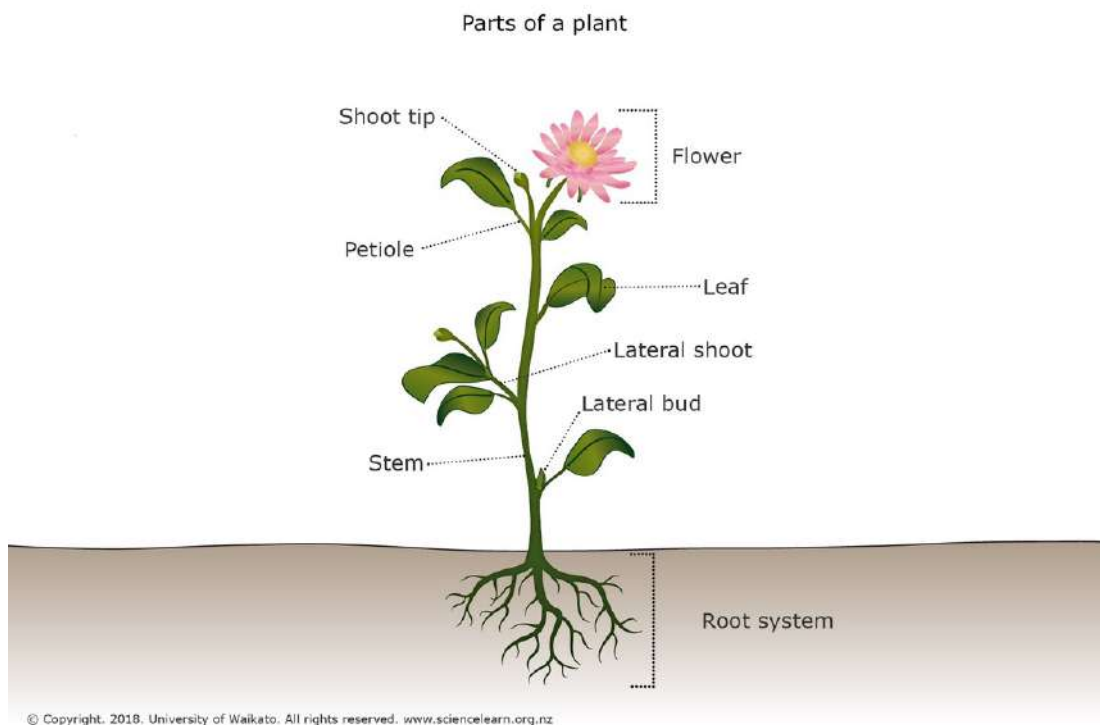
Step 6:
Draw and color your own plant life (e.g. flowers, grass, crops, etc.) in the aboveground scene. The environment is thriving thanks to the work of amazing earthworms!

Discussion Questions:

1. Observe the soil and sand used in your artwork. Describe the properties of each (e.g., color, texture, hardness, etc.).
2. Are earthworms producers, consumers or decomposers? What evidence proves your response?
3. Why might gardeners want earthworms to be in their gardens?

Extensions:

1. Imagine you are an earthworm living in a farmer's garden. Write a journal entry that details your busy day.
2. Label the parts of the plants you drew in the aboveground scene. For example:



References:

Earthworm. Animals. (n.d.). Retrieved April 7, 2022, from <https://kids.nationalgeographic.com/animals/invertebrates/facts/earthworm>

Worms: Vermiculture. Kids Growing Strong. (n.d.). Retrieved April 7, 2022, from <https://kidsgrowingstrong.org/worms/>

Parts of a Plant. Science Learning Hub – Pokapū Akoranga Pūtaiao, University of Waikato. (2018). Retrieved April 15, 2022 from www.sciencelearn.org.nz

Featured Product

This STEAM activity was inspired by the activities found in [*Dirt Camp*](#).



In *Dirt Camp*, young learners **collaborate**, **reflect** and **problem-solve** their way through a hands-on exploration of the origins and make-up of dirt. Experience how techniques from animal, insect, plant and even fungi friends help humans to construct and cultivate. Delve into the differences between dirt and soil and apply this loamy lore to design an ideal farm. Through a **multi-subject integration** approach, learners will delight in rolling up their sleeves to experiment, **engineer** and excavate.

Interested In More Art/STEAM Activities?



[*Traveling Artist*](#) — Survey the history of art by carving totem poles in the Pacific Northwest, crafting Aztec masks in the heart of Mexico and experimenting with the artistic traditions of the world. In this thrilling Enrichment Program, learners take **creative thinking** and **cultural awareness** head-on as they examine the **STEAM** processes that make art possible.



[*Drone Designers*](#) — Drones are transforming the world of arts and entertainment. Follow in the footsteps of the world's groundbreaking drone designers as learners collaborate to costume, choreograph and **code** tiny aerial robots in **creative** performances. Use your **imagination**, **problem-solve** and explore **STEAM careers** through the innovative ways drones are being used for good!



For more information, visit: <https://edventures.com/collections>
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