

# Worm Study and Worm Hotel Construction

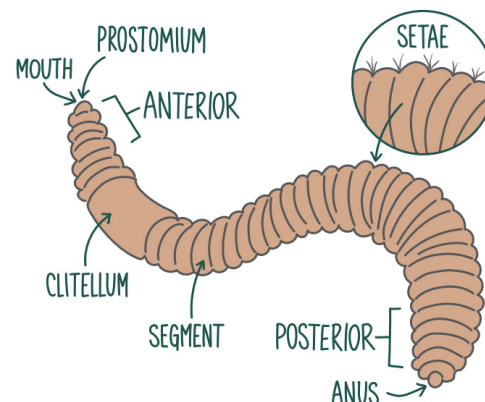


Objective: Learn more about an animal right outside your door - Worms! You can investigate worm behavior and consider what they need to survive when you create your own worm hotel.

Background: It can be exciting to make close observations of animals including invertebrates (animals without backbones) like worms or insects. Worms breathe through their skin so if the soil is too wet, they must come to the surface in search of air; if the soil is too dry, they can lose their slime and dry out. Worms have no eyes but are sensitive to light. Worms have no ears but are sensitive to vibrations. Worms have a mouth with no teeth and can eat half their body weight in one day. They have a varied diet of leaves, flowers, insects, and other decaying organisms that break down or decompose. Worms can take our kitchen veggie scrap waste and turn it into rich soil.

## Materials:

- Spoon or trowel
- Worms
- 1 old clear plastic water or soda bottle
- Soil
- 1 old dark-colored sock
- Rubber band
- Moist paper towel
- Fresh picked grass, leaves or vegetable scraps
- 3 plastic tubs or containers
- Pencil and paper
- Magnifying lens (optional)



## Activity:

1. To construct the worm hotel cut the top off the plastic bottle.
2. Fill the bottle about three-quarters full with moist soil and add a few small bits of grass, leaves or kitchen veggie scrap.
3. Pull an old, dark-colored sock up over the bottle to help keep out light (worms like it dark).
4. Before you find worms to add to the worm hotel, first think about how to handle the harmless worms gently to avoid hurting them. To hold them in your hand place them on moist soil or a moist paper towel in your hand.
5. To collect worms, use worms from a worm bin, look outside on the sidewalk after a rain, look under flower pot containers, or add water in an open soil area of a yard or garden and dig for worms a few hours later or the following day using a spoon or trowel. Add the worms you find to your worm hotel.

### Activity Continued:

6. Have available the 3 containers, with soil, water, and grass or leaves. Hold one of the worms on a moist paper towel and take turns adding soil, water, leaf or grass to the worm and observe how the worm reacts. What does the worm do?
7. Take a little time to draw the worm in detail (don't let them dry out). Label which end is the head and which end is the tail. Find and label the clitellum. Estimate the number of segments on the worm.
8. When finished with observations, return the worms to the hotel and place wet leaves over the soil. Be sure to pull the sock over for comfortable darkness and tie it closed with a rubber band. After a couple of days check on your worms and the leaves, grass or kitchen veggie scrap. Did the worm eat the organic matter? After checking on your worm hotel, release them into the yard.

Wrap Up: Please answer the following questions to describe what you noticed about worm behavior.

1. How did added soil affect the worms?
2. How did added water affect the worms?
3. How did added leaves or grass affect the worms?
4. What do worms need to live?
5. How is that different from what we need to live?
6. Are worms good for our soil?
7. What would happen if nothing was able to break down organic matter like dead leaves or cut grass?
8. Write down all the questions you have about worms.

Extension: Devise an investigation to help answer your questions about worms.

Make a worm bin to help your family process kitchen vegetable scraps into rich garden soil with this easy worm bin construction activity from Kids Gardening:

[https://kidsgardening.wpengine.com/wp-content/uploads/2017/01/KG\\_gardeningbasics-wormcomposting.pdf](https://kidsgardening.wpengine.com/wp-content/uploads/2017/01/KG_gardeningbasics-wormcomposting.pdf)



These 4th graders made a worm bin using leaves and newspaper strips for bedding and added banana peel and apple core for more food.