

Name \_\_\_\_\_

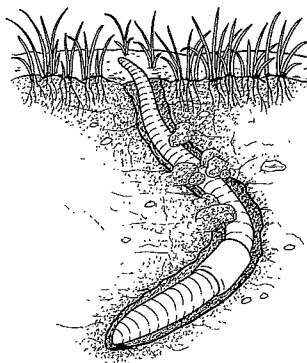
**Day  
1**

### Weekly Question

## Why do earthworms like dirt?

If you have ever dug in a garden, you've probably found a lot more than just dirt. A closer look might have revealed ants and centipedes, or perhaps a network of plant roots. And although you might not have seen them, soil teems with microorganisms. An ounce of soil can contain 100,000 algae, 1,000,000 fungi, and 100,000,000 bacteria!

In a sense, healthy soil is "alive," crawling with worms, insects, and microscopic life. Soil is an **ecosystem** that includes not only the minerals in the dirt but also all the organisms that make the soil their habitat. In the soil ecosystem, earthworms play the role of **decomposers**. Earthworms break down and recycle matter mostly from dead plants.



- A. Check the box next to the phrase that completes the analogy.

Home is to **community** as \_\_\_\_\_.

☐ earthworm is to **algae**

☐ **ecosystem** is to **soil**

☐ **habitat** is to **ecosystem**

☐ earthworm is to **habitat**

- B. Complete the paragraph with words from the passage.

Garden soil contains worms, insects, and thousands upon thousands of tiny \_\_\_\_\_, including algae and bacteria. These living things share the same environment, making soil their \_\_\_\_\_. The combined elements of the organisms and their environment functioning together form an \_\_\_\_\_. Earthworms play a critical role in this tiny world. As \_\_\_\_\_, they break down dead or decaying plant material and help renew the soil.

Daily Science

## Big Idea 2

WEEK 1

### Vocabulary

#### decomposer

DEE-kom-POH-zer  
an organism that feeds on dead plant or animal matter

#### ecosystem

EE-koh-SIS-tum  
a group of organisms and the environment in which they live

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Daily Science

## Big Idea 2



WEEK 1

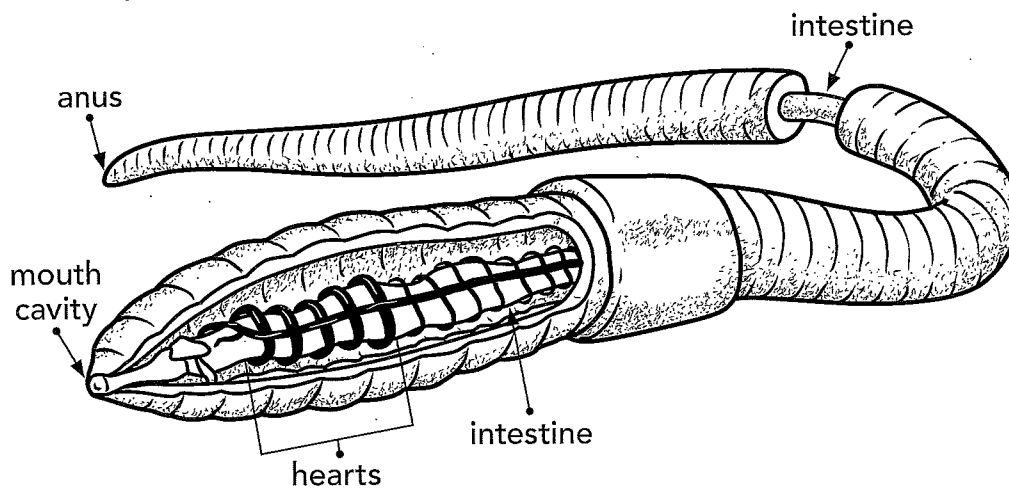
### Day 2

#### Weekly Question

## Why do earthworms like dirt?

Soil has many properties that attract earthworms. One reason earthworms like dirt is because it contains their food. The worms ingest dead and decaying plant matter that falls into the soil. Earthworms also graze on tiny living organisms in the soil, such as bacteria and fungi.

Another reason earthworms like dirt is because it shields their soft bodies from **exposure**. Earthworms have no protective shell or tough skin to keep in moisture. By staying underground, earthworms avoid being dried out by the sun's hot rays. The damp, cool earth keeps the worms **hydrated**. The soil also helps the worms maintain a lower body temperature, which keeps them alive.



### Vocabulary

#### **exposure**

eks-POH-zhur  
being exposed, or  
unprotected from  
harsh weather  
conditions

#### **hydrated**

HI-dray-tid  
maintaining enough  
fluid

A. Describe three ways soil benefits earthworms.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

B. Write a sentence about earthworms, using the words *exposure* and *hydrated*.

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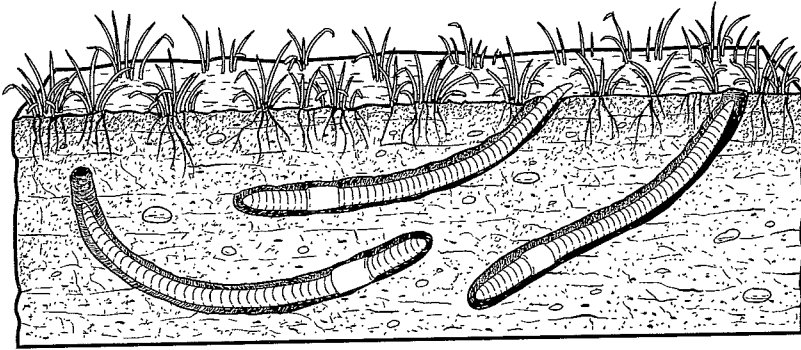
**Day  
3**

**Weekly Question**

## Why do earthworms like dirt?

Not only is soil good for earthworms, but earthworms are good for the soil. When earthworms eat, they swallow small pieces of dirt along with plant and animal matter. The worms break this material down into smaller pieces and expel it in the form of **castings**, which are rich in minerals and nutrients that are beneficial to plants and other organisms.

In addition to enriching the soil with their castings, earthworms also burrow into the soil and **aerate** it, allowing oxygen to enter. By burrowing, the worms bring organic-rich top layers to the soil deeper down. Burrowing also improves drainage by helping water penetrate the soil.



### A. Write *true* or *false*.

1. When earthworms burrow, they remove nutrients from the soil. \_\_\_\_\_
2. Castings contain the nutrients other organisms need to survive. \_\_\_\_\_
3. Earthworms prevent water and oxygen from getting too deep in the soil. \_\_\_\_\_

### B. Describe three ways earthworms improve soil.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Daily Science

**Big  
Idea 2**



**WEEK 1**

### Vocabulary

**aerate**

AIR-ate

to expose to air

**castings**

KASS-tingz

the waste expelled  
by earthworms

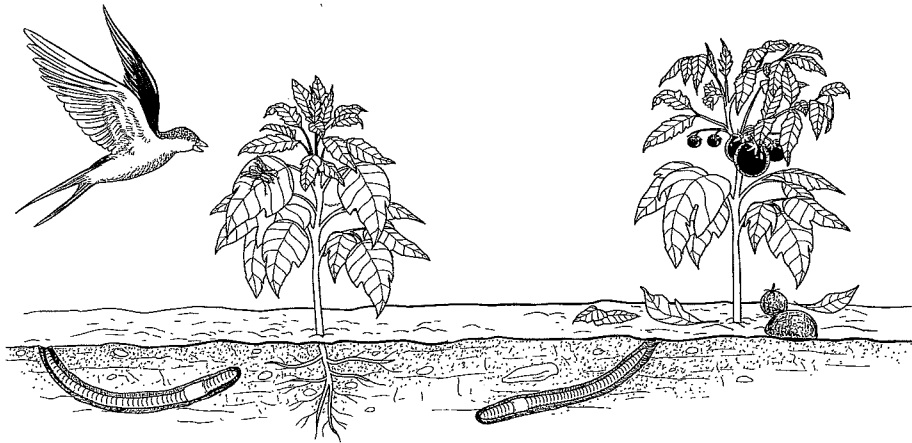
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**Day  
4**

**Weekly Question**

## **Why do earthworms like dirt?**

Earthworms are just one of the necessary parts of a garden ecosystem. Nutrients and water in garden soil allow plants, such as tomatoes or lettuce, to grow. Plants provide food for insects and animals that wander into the garden. Animals, in turn, are consumed by other animals. Ultimately, the wastes and remains of plants and animals return to the garden soil. In this way, all the plants and animals make their contribution to the garden ecosystem and allow worms to do their job as decomposers and recyclers.



**A.** Number the events below in the correct order to show the cycle that occurs in a garden ecosystem. The first step is given.

- \_\_\_ Insects and other animals eat plants.
- \_\_\_ Nutrients help plants grow.
- 1 Worm castings enrich the soil with nutrients.
- \_\_\_ Worms decompose plant material.
- \_\_\_ Animals and plants die.

**B.** What do you think would happen to the garden ecosystem if there were no more earthworms?

\_\_\_\_\_

**Daily Science**

**Big  
Idea 2**



**WEEK 1**

Name \_\_\_\_\_

**Day  
5**

**Weekly Question**

## **Why do earthworms like dirt?**

Daily Science

**Big  
Idea 2**



**WEEK 1**

**A.** Use the words in the box to complete the paragraph.

castings    hydrated    decomposers  
aerate    exposure    ecosystem

Soil and all the living things in it make up an \_\_\_\_\_.

Earthworms act as \_\_\_\_\_, eating decaying matter in the soil and expelling it in the form of nutrient-rich \_\_\_\_\_.

The worms also \_\_\_\_\_ the soil, which helps circulate oxygen. In return, the cool, moist soil protects earthworms from \_\_\_\_\_ and keeps them \_\_\_\_\_.

**B.** Many people separate kitchen waste from their garbage to create compost, a mixture of decaying organic matter used to improve soil. Earthworms are often added to the mixture. Use this information to answer the questions below.

**1.** How do you think earthworms help the process of composting?

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**2.** Why can't *all* trash be used to make compost?

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