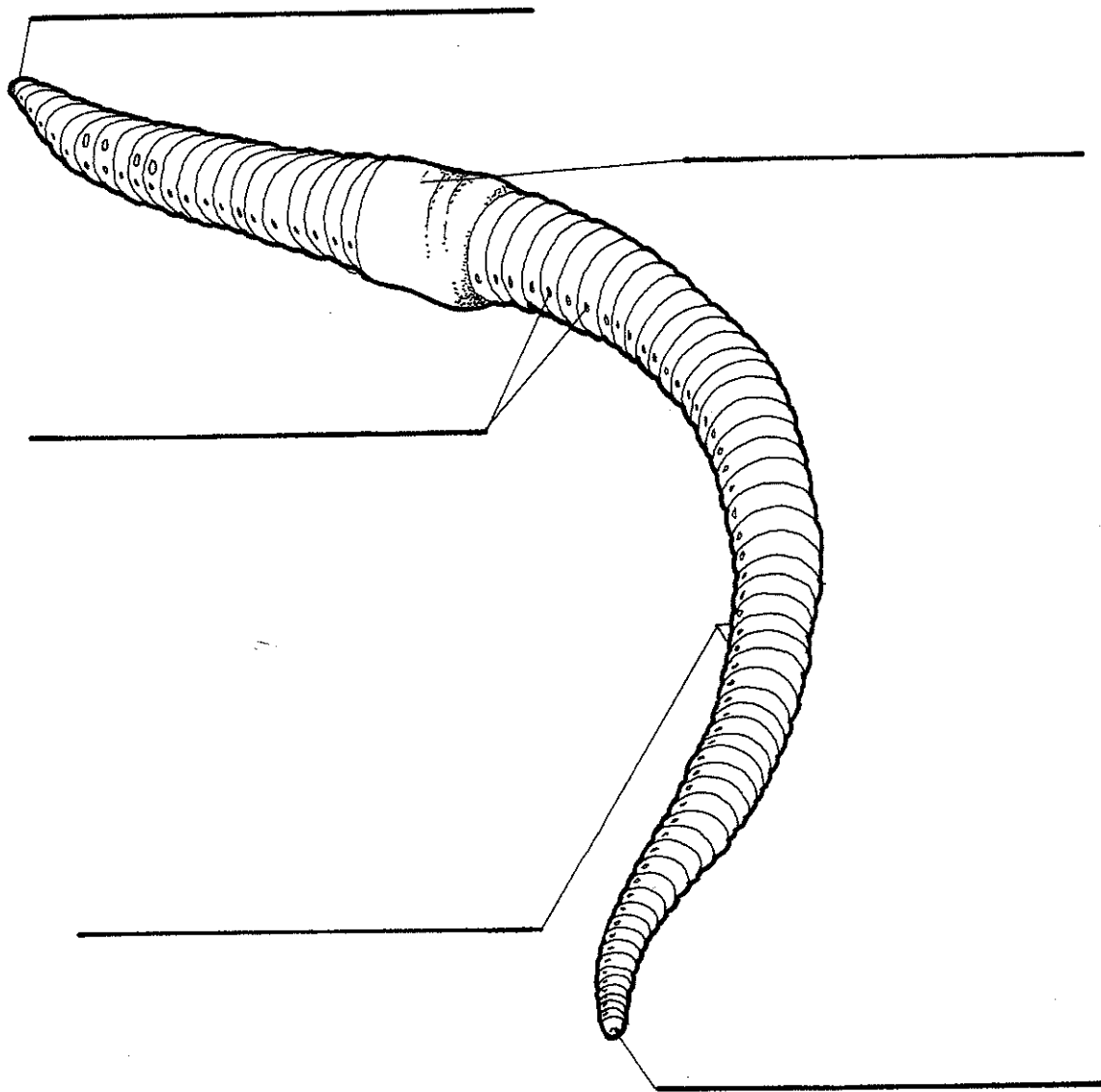


# The Earthworm

Name \_\_\_\_\_

Label the exterior parts of the earthworm.



## WORD BANK

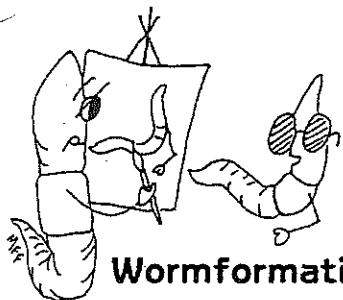
mouth  
segment

clitellum  
anus

setae

Name \_\_\_\_\_

## Seeing is Believing



**Wormformation**

Worms do not have eyes as we do. When you see an artist's cartoon of a worm with eyes you know that the artist is using her imagination. The artist is trying to give the worm expression and personality. Humans show their emotions of happiness, sadness, and surprise with their eyes. Imagine a worm drawing a picture of another worm. A picture drawn by a worm would not show human eyes. Perhaps a worm can sense if another worm is happy or sad by using another part of its body and does not need eyes at all. Scientists who study earthworms know that they sense light without having eyes.

### Question

Do worms sense light? Try this experiment.

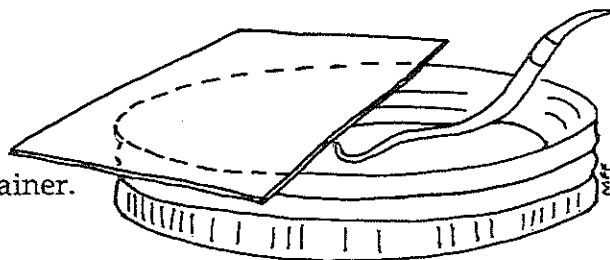
### Materials

You will need the following materials to do your scientific study:

- a shallow container (jar lid)
- black paper or cardboard
- live worm (at least 1)
- moist paper
- towel
- a flashlight

### Directions

1. Place moist paper towel in shallow container.
2. Cover half of the container with the cardboard.
3. Put worm in the uncovered portion of the container.
4. Shine the flashlight on the worm.
5. Observe what the worm does.



Record your observations in the box below and answer the question.

What did you observe? \_\_\_\_\_

\_\_\_\_\_

Does a worm sense light? \_\_\_\_Yes \_\_\_\_No

How do you know? \_\_\_\_\_

\_\_\_\_\_

**Bonus Activity** Use a red or amber plastic bag over lighted end of flashlight and observe the reaction of the worm to light. Record what you see the worm doing.

[illegible]

**DRAW A CIRCLE AROUND THE GREENS AND A SQUARE AROUND THE BROWNS.**



Name: \_\_\_\_\_

# COMPOST CRITTERS WORKSHEET

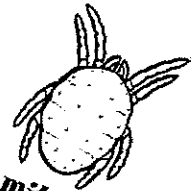
*Circle Me If You Can Find Me*



collembola



springtail



mite



sow bug



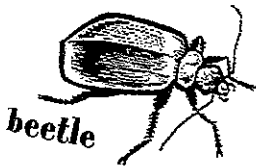
slug



worm cocoon



white worms



beetle



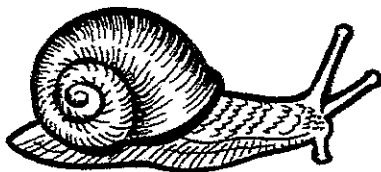
fruit fly



redworm



spider



snail



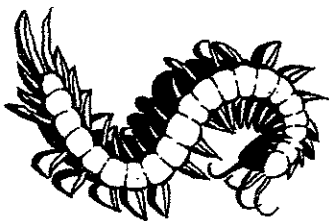
mold



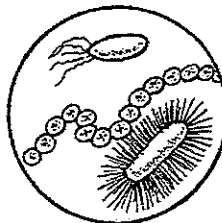
ant



millipede



centipede



bacteria



pill bug

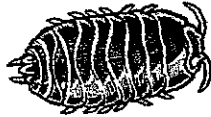
Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Compost Critters Information Sheet

## Pill Bug or Roly Poly

I am an isopod, which means I have ten pairs of legs that look very similar to each other. I eat old leaves and veggie scraps. I am about ½ inch long and I roll up in a ball if I am disturbed. Some people think that I look like a little armadillo. I am a grayish, dark color.



## Centipede

I move quickly on my many legs. I have 15-137 segments with a pair of legs on each. I am a fierce hunter. I love to eat earthworms. I use my pair of poison claws to help keep my prey from getting away. I am about 1 to 2 inches long. I am usually reddish brown.



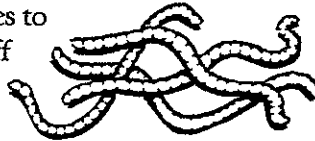
## Ant

I am an insect with 6 legs. I help to decompose by breaking materials into smaller particles. I create tunnels, and move soil into clumps. Some people would rather not have me around their homes. I am black, brown, or red.



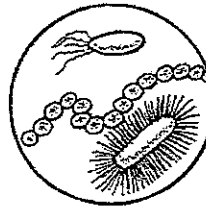
## White Worm

I look like a frayed piece of thread. I am a skinny, white worm. I am ½ to 1 inch long. I am related to an earthworm. I like to eat rotting food after the other bugs get to it. You might think of me as one who likes to finish off the job.



## Bacteria

We are so tiny that you can't even see us. We are everywhere. I am colorless. I can eat almost anything. Some of us live together in groups and others don't.



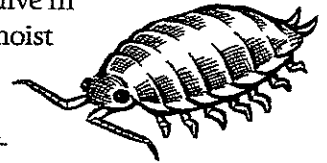
## Mold

I am a fungus. I am related to mushrooms. Most of us live on old food. You might see me on old food in your home or your worm bin.



## Sow Bug

I have 10 pairs of legs. That makes me an isopod like my cousin the Roly Poly. I eat vegetation and old leaves. My ½ inch long body is oval and flat with flattened plates, but I can't roll up into a ball like Roly Poly. I am related to crayfish and lobsters. I breathe with gills, so I must live in a damp, moist place. I am a dark, grayish color.



## Earthworm

I am a long, thin, soft-bodied animal. My body is made up of little segments. I do not have legs or eyes. I sense light and I breathe through my skin. I eat bacteria, fungi, and other decaying materials. I like dark, moist places.



## Fruit Fly

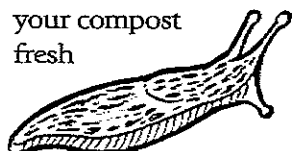
I am a very small fly. People don't like me, but I don't bite, sting, or make buzzing sounds. I don't harm earthworms either. Sometimes you will see me around a worm bin if a person forgot to bury their food. I like to lay my eggs where it's moist and warm.



# Compost Critters Information Sheet

## Slug

I have muscular discs on my underside that are adapted for creeping and crawling. I lay eggs masses that look like jello. I eat living material but will make an appearance from time to time in your compost fresh



to time in pile to eat garbage and garden trimmings.

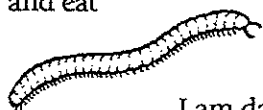
## Mite

I am tiny. It would take 25 of us to cover an inch-long line. My body is round and fat so it's hard to see my 8 legs. I eat plant materials such as mold and soft tissues of leaves. Some of us eat manure of other organisms. I am usually white or brown.



## Millipede

I have so many legs you would have a hard time counting them. My name means "thousand legs," but I don't have that many. I am very shy and I roll up in a ball to avoid danger. I am a vegetarian and eat



soft, moist, decaying plants.

I am dark-red in color and am 1 to 3 inches long.

## Springtail

I am a tiny insect less than  $\frac{1}{16}$  inch long. I eat molds and decaying materials. I have a little spring that helps me jump high into the air. I am white in color.



## Collembola



I am a close relative of the springtail but I can't jump. I am tiny, and less than  $\frac{1}{16}$  of an inch long. I eat molds and decaying matter. I am white in color.

## Beetle

I am an insect with shiny, black, tough wings and am about  $\frac{1}{2}$  inch long. I am a predator and eat slugs, snails, and soft insects such as caterpillars. I live beneath stones, boards and other moist places.



## Snail

Like my friend, the slug, I am a mollusk and creep around on my muscular belly. I carry on my back a spirally curved shell. I also have a broad retractable foot and a distinctive head. Like slugs, I prefer to eat living material, but I will also show up in your compost pile or worm box from time to time for lunch.



## Spider

I am related to mites and have 8 nifty legs. I am one of the least appreciated animals in the garden and compost. I feed on other insects and work hard to help control pests that will hurt a garden.



## Worm Cocoon

You can find me in a worm bin or compost pile. Before I have hatched, I am clear and yellowish and the shape of a lemon, and  $\frac{1}{8}$  inch long. After I have hatched



I turn pea green. Two or more baby worms are hatched at once.

## FOOD WEB OF THE COMPOST PILE

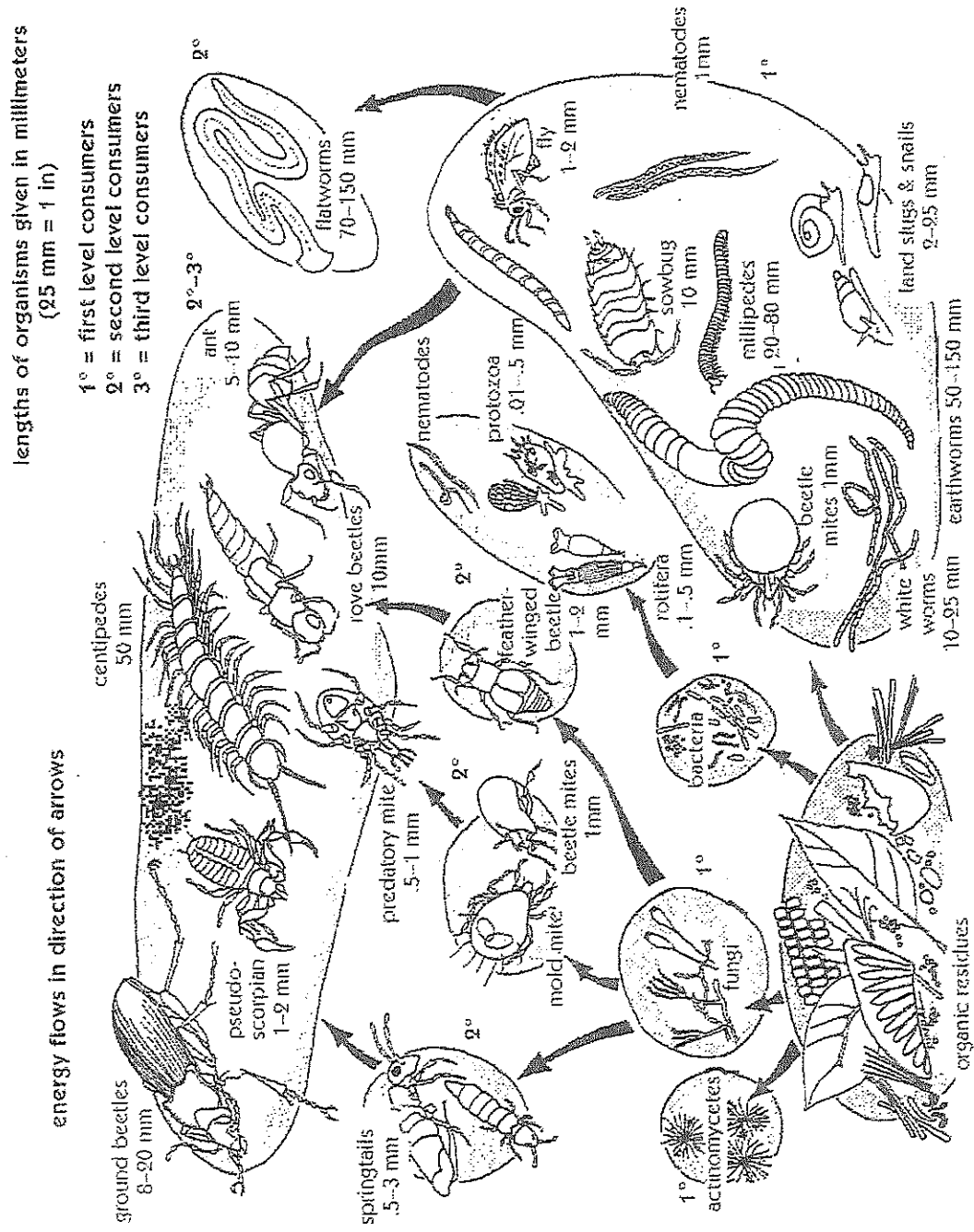


Figure 3.1 Soil organisms and their role in decomposing residues. Modified from D.L. Dindal, 1978.