Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Observation of a Living Earthworm**

1. Earthworms belong to the Kingdom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. **Research:** List two characteristics of Earthworms:

3. **Research:** Name two other organisms in the Phylum Annelida.

4. Place the earthworm on a moist paper towel. **Observe the worm as it moves**. The leading end is the anterior end, the

 opposite is the posterior end. What does anterior mean?

 What does posterior mean?

5. Sketch the earthworm in the space below. **Label the dorsal side, ventral side, posterior and anterior ends.**

6. Roll the worm over and describe what happens. **Observe the Earthworm for 2 minutes**. Write your observations of its activity in the space below.

Are these observations qualitative or quantitative?

7. **Earthworms Sizes**--Use a ruler to measure the length of your worm in centimeters. Worms are divided into segments. Compare your worm to two other worms in the room.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | Your Worm | Worm 2 | Worm 3 | Average Length |
| Length (cm) |   |   |   |   |

Longer worms have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ segments. (more, or less, or the same)

8. **Study the earthworm's head**. Does it appear to have any sense organs, such as eyes, ears, nose, or mouth? Do you think the earthworm is capable of sensing... (make your predictions below- yes or no)?

Light? \_\_\_\_ Odor? \_\_\_\_ Sound? \_\_\_\_\_ Taste? \_\_\_\_\_ Touch? \_\_\_\_

9. **Response to Odor**---Obtain a Q-tip dipped in Ammonia (Windex). First, wave the Q-tip near the worm's posterior end. and record the worm’s reaction. Then repeat this process at the anterior end. Important – **Do not touch the worm, it is toxic!**

**Response**

Ammonia anterior \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ammonia posterior \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Based on your observations, does the earthworm have a sense of smell?

Is the front or hind end more sensitive to odors?

10. Describe how the worm demonstrates all 8 Characteristics of living things.

|  |  |
| --- | --- |
| Made of Cells |  |
| Reproduce |  |
| Respond to Stimuli |  |
| DNA |  |
| Evolve |  |
| Grow & Develop |  |
| Homeostasis |  |
| Requires Energy |  |