The Senses of "Unknown Creatures"

Background

Animals get information about their environment through their "SENSES". We have 5 major senses: touch, smell, vision, taste and hearing. We have brought back some creatures from the South American jungle. They do look a bit like earthworms, but let's pretend for a while. Print these pages and investigate!

Your job is to find out how they sense the environment. You will be given some supplies to test the response of these animals to light, touch and chemicals. You will have to devise your own experiments with the material on this page (see below).

But first, answer these questions:

1. Do you think these creatures can SEE? Why or why not?

2. Do you think these creatures can FEEL? Why or why not?

3. Do you think these creatures can TASTE and SMELL? Why or why not?

Materials: Shoebox Top - Aluminum Foil - Soil/Sand - Chemical (vinegar) acid
Desk Lamp - Creature - Stopwatch - This data sheet

Before starting the experiments, remember that the creatures are living animals...

Treat them with care!

Also, return them to their natural habitat (a flower or garden bed) when you are finished with your experiments.

Project #1 - Light Sensitivity

Use the shoebox, foil, stopwatch and lamp to determine if the creatures like the light or if they avoid the light. Describe your experiment in the space that follows. A labeled diagram may help explain how you set it up.

Observations (Insert Graph here - time spent in light Vs time spent in dark)

Conclusion - Do the creatures respond to light? If so, did the creatures prefer to be in the light or dark?

Project #2 - Touch Sensitivity

Use the shoebox, soil, stopwatch and sand to determine if the creatures prefer the soil or the sand. Describe your experiment in the space that follows. A labeled diagram may help explain how you set it up.

Observations (Insert Graph here - time spent in soil Vs time spent in sand)

Conclusion - Is there a difference in the amount of time they spent in one type of material? If so, did the creature prefer soil or sand.

Project #3 - Chemical Sensitivity

Use the shoebox, stopwatch and vinegar and other materials to determine if the creature prefers to live in an acidic environment or a nonacidic environment. Describe your experiment in the space that follows. A labeled diagram may help explain how you set it up.

Observations (Insert Graph here - time spent in soil Vs time spent in acidic or nonacidic environment)

Conclusion - Can the creatures detect chemicals? If so, did the creatures prefer an acidic or nonacidic environment.

WEB PAGES for further exploration:

1. Amazing Animal Senses - http://weber.u.washington.edu/~chudler/amaze.html
2. Worm Review - http://biog-101-104.bio.cornell.edu/BioG101_104/tutorials/animals/earthworm.html
3. Dissecting the Earthworm - http://telcom.coos.k12.or.us/coquillstu/molls_place/worm.htm
4. Invertebrate Nervous System - http://weber.u.washington.edu/~chudler/invert.html
5. Worm Digest
6. Worm World - http://www.nj.com/yucky/worm/