

Experiment #3

According to Science World Magazine, earthworms are able to learn simple things. To test this, an experimenter set up a maze for earthworms. She places an earthworm at the start of a maze. If the earthworm crawls to the right, it finds itself on uncomfortable sandpaper. If the earthworm crawls to the left, it finds itself in soothing moist soil. She repeats this experiment 10 times with each of the 20 earthworms she has for the experiment. She then repeats the experiment this time using a maze with soil on the right and sandpaper on the left. In a data table, the experimenter records how many times each earthworm crawls to the left or to the right.

1. Write a clear purpose for this experiment (what is the question they are testing).
2. Write a hypothesis in correct format that corresponds to this experiment.
3. Why did the researcher switch the location of the sandpaper and soil when they repeated the experiment.
4. What is the independent variable for this experiment?
5. What is the dependent variable for this experiment?

6. What are some of the environmental variables that need to be controlled during this experiment? List at least three.

8. Are there any improvements that could be made?

