

Name: _____

Date: _____



SCIENCE EXPERIMENT

OBSERVING THE BEHAVIOR OF PILL BUGS IN HUMID VERSUS DRY ENVIRONMENTS

Pill bugs (also called roly-polies or woodlice) prefer moist environments.

In this experiment, you will observe how they behave when given a choice between humid and dry areas.

QUESTION

How does the humidity level (humid vs. dry) affect the behavior and location choices of pill bugs?

HYPOTHESIS

If pill bugs are given a choice between a humid area and a dry area, then I think they will _____

because _____

MATERIALS

- 10–20 pill bugs
- Clear plastic container with a lid (shoebox size works well)
- Potting soil or coconut coir
- Small spray bottle with water
- Paper towel
- Small hide or piece of bark
- Ruler (optional)
- Pencil
- Observation sheet
- Timer or clock

PROCEDURE

1. Fill the container with a layer of soil or coconut coir.
2. On one half of the container, add water using a spray bottle until the soil is moist (humid side). Do not make it soggy.
3. On the other half, keep the soil dry (dry side).
4. Place a small hide or piece of bark in the center of the container.
5. Gently place the pill bugs in the center, near the hide.
6. Put the lid on the container (or loosely cover with air holes).
7. Observe the pill bugs for 15 minutes.
8. Record how many pill bugs are on each side every 5 minutes.
9. Repeat the experiment at least 2 more times and calculate the average.

OBSERVATIONS

Record how many pill bugs are on each side every 5 minutes.

Time (minutes)	# of Pill Bugs on Humid Side	# of Pill Bugs on Dry Side	# in Center / Under Hide	Notes / Observations (What are the pill bugs doing?)
0 (start)				
5				
10				
15				

Repeat Trials: Trial 2 _____ Trial 3 _____ Average (Humid Side) _____ Average (Dry Side) _____

CONCLUSION

What did you find out? Did your results support your hypothesis?

REFLECTION

Why do you think pill bugs prefer humid environments?

What else could you investigate about pill bugs?



SCIENCE TIP: Pill bugs breathe through gills that must stay moist. If they dry out, they can't survive!

