

# Insects & Other Arthropods

Investigation Data Sheet



## Environmental Preferences Of Pill Bugs

Pill bugs can be found in all kinds of places, such as under loose bricks, under logs, or amongst the underbrush in your backyard. Despite their name and appearance, pill bugs aren't insects but, instead, are crustaceans that live on land. This is unusual, as most crustaceans are found in water.

### Objective

Observe the environmental preferences of pill bugs.

### Materials

- 10 pill bugs
- a jar with lid
- aluminum foil
- water
- a shoe box
- 2 sheets of paper towel
- masking tape

**Safety Notice:** All applicable laboratory safety rules must be followed. Students should not perform any experimental activity without the teacher's supervision and express permission. Students must follow safety guidelines and wear appropriate protective gear.

### Procedure

1. Collect at least 10 pill bugs for this investigation by looking under loose bricks, logs or in the brush of your backyard. Prevent them from getting away by placing them in a jar with a lid that has holes for air.
2. Line the inside of the shoe box with aluminum foil. Put two paper towels next to each other, in the bottom of the shoe box. Lay a piece of masking tape between them to hold the paper towels together.
3. Dampen the paper towel on the left side of the box. Put your ten pill bugs on the tape between the two paper towels and put the lid on the box. Let the box sit for five minutes. While you are waiting, record your predictions in the space below. What will the pill bugs do? Will they all move towards the wet paper towel? The dry paper towel? Or will they stay in the middle on the tape?  

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4. After five minutes, remove the cover from the shoe box. Sketch what happened and write your observations in the space below. Was your prediction correct?

5. If you have access to additional pill bugs, repeat this experiment two more times using different pill bugs. This will help to test the accuracy of your results. You should get the same results as you did in the first experiment.
6. When you complete this investigation, be sure to return the pill bugs you collected to their natural environment.

### Conclusions

- Use information gathered during this investigation to determine which habitat pill bugs would prefer: a forested area or a dry desert. Explain.  

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### Extension

Design an experiment to determine some of the other environmental preferences of pill bugs. For example, do they prefer light or darkness?