



Observing the Behavior of Isopods Under Different Conditions

Name: _____

Science Topic: Animal Behavior / Adaptations

Date: _____

Living things respond to changes in their environment.



OBJECTIVE

To observe how isopods (pill bugs/roly-polies) behave under different environmental conditions.



BACKGROUND

Isopods have gills that must stay moist to breathe. They are often found in damp places like under leaves, logs, or rocks. In dry or bright conditions, they may move away or hide to prevent drying out.



MATERIALS

- 8–15 isopods
- 4 clear containers or divided tray
- Soil or potting mix
- Sand (dry)
- Cotton or paper towel
- Water (spray bottle or dropper)
- Cardboard or paper (for darkness)
- Small plastic cups or hideouts (optional)
- Timer
- Observation sheet (this page)



PROCEDURE

1. Set up 4 test areas in your containers or divided tray. Use the conditions below.
2. Place the same amount of soil or substrate in each area.
3. Add isopods to the center of each test area. (Use the same number in each area.)
4. Give the isopods 2–3 minutes to explore.
5. Observe and record where most of the isopods are.
6. Repeat observations at 10 minutes and 20 minutes.
7. Do not touch or disturb the isopods during the test.

TEST CONDITIONS

Area	Condition
1	Moist & Dark (damp soil, covered with cardboard)
2	Moist & Light (damp soil, open to light)
3	Dry & Dark (dry soil or sand, covered with cardboard)
4	Dry & Light (dry soil or sand, open to light)



OBSERVATIONS & RESULTS

Record where most of the isopods are in each area at the times below.

Area	Condition	After 2–3 Minutes	After 10 Minutes	After 20 Minutes
1	Moist & Dark			
2	Moist & Light			
3	Dry & Dark			
4	Dry & Light			



ANALYSIS & CONCLUSION

1. In which condition did the isopods spend the most time? _____
2. In which condition did the isopods spend the least time? _____
3. What does this experiment show about how isopods respond to their environment? _____