

Name \_\_\_\_\_ Block \_\_\_\_\_ Date \_\_\_\_\_

## Isopod Behavior Lab – Experimental Design Guide

*Beginning of the cycle of scientific thought*

Question:

Hypothesis:

Why do you believe your hypothesis is true?

*Designing an investigation*

Materials:

Identifying Variables

- Independent variable:
- Dependent variable:

Designing a Control Group? - What will serve as a good comparison group?

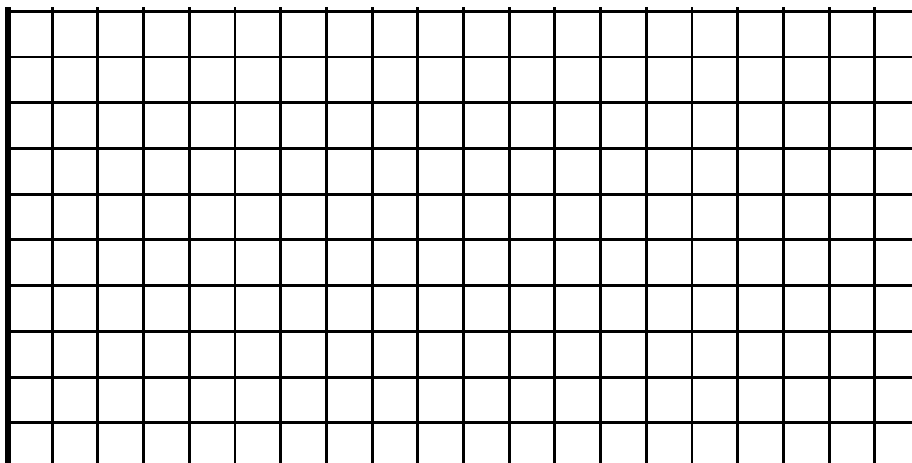
Identifying Constants - What factors will stay the same? List at least three.

*Collecting and Presenting Data*

Data Table:

| Time         | Number of Isopods |         |             | Other observations |
|--------------|-------------------|---------|-------------|--------------------|
|              | Left side:        | Center: | Right side: |                    |
| 0 sec        |                   |         |             |                    |
| 30 sec       |                   |         |             |                    |
| 1 min        |                   |         |             |                    |
| 1 min 30 sec |                   |         |             |                    |
| 2 min        |                   |         |             |                    |
| 2 min 30 sec |                   |         |             |                    |
| 3 min        |                   |         |             |                    |
| 3 min 30 sec |                   |         |             |                    |
| 4 min        |                   |         |             |                    |
| 4 min 30 sec |                   |         |             |                    |
| 5 min        |                   |         |             |                    |

Graph:



*Analyzing and Interpreting Results*

*Conclusion – Claim, Evidence, and Reasoning*

- Organize the essential parts of your conclusion into the graphic organizer below:

|  |   |
|--|---|
| <b>Claim</b> (Answer your original scientific question.)             |   |
| <b>Evidence</b> (Summarize <i>data</i> . Include important details.) | <b>Reasoning</b> ( <i>Explain why</i> your evidence supports your claim. Explain why these results make sense to you <u>or</u> explain why you think these results are surprising.) |