## LAB: PILL BUG HABITAT

The purpose of this experiment is to observe how animals sense energy. You will be altering the habitat of a pill bug to see how they respond to the various types and changes in energy.

Materials- 4 pill bugs, a petri dish, small cup, black paper, full circle paper towel, half circle paper towel, bag of ice

Procedures- Obtain a petri dish and a cup. Place 4 pill bugs in your cup to keep them safe between tasks. Record where your bugs go as their responses are tested and diagram where they are at the "start" and "finish" of each experiment.

Response to Water- Place a dampened "half circle" paper towel in your petri dish, the paper towel should cover half of your dish and should not be so wet that it is dripping; the other side should remain dry. Place your bugs where you would like them and place the lid on the petri dish. Place your bugs in your cup, throw away your paper towel and dry your petri di


| Dry Half | $0: 00$ | $0: 30$ | $1: 00$ | $1: 30$ | $2: 00$ | $2: 30$ | $3: 00$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of bugs |  |  |  |  |  |  |  |
| Damp Half | $0: 00$ | $0: 30$ | $1: 00$ | $1: 30$ | $2: 00$ | $2: 30$ | $3: 00$ |
| \# of bugs |  |  |  |  |  |  |  |

Response to Light- Place a dampened "full circle" paper towel covering the bottom of your petri dish, place your bugs and cover with the lid. Cover half of your dish with a piece of black paper and place your petri dish directly under the light on your station so that the light does not shine into the "dark half" of your petri dish.


| Dark Half | $0: 00$ | $0: 30$ | $1: 00$ | $1: 30$ | $2: 00$ | $2: 30$ | $3: 00$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of bugs |  |  |  |  |  |  |  |
| Light Half | $0: 00$ | $0: 30$ | $1: 00$ | $1: 30$ | $2: 00$ | $2: 30$ | $3: 00$ |
| \# of bugs |  |  |  |  |  |  |  |

Response to Cold- Remove the dark paper. Without changing the inside of your petri dish, place your ice bag under one half of your petri dish and allow the bugs to respond. Remove the ice bag return it to your teacher.


| Warm Half | $0: 00$ | $0: 30$ | $1: 00$ | $1: 30$ | $2: 00$ | $2: 30$ | $3: 00$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of bugs |  |  |  |  |  |  |  |
| Cold Half | $0: 00$ | $0: 30$ | $1: 00$ | $1: 30$ | $2: 00$ | $2: 30$ | $3: 00$ |
| \# of bugs |  |  |  |  |  |  |  |

Data- choose one of your data sets (response to water, light, or heat) and create a bar graph to show the relation of time and amount of bugs.


Time (Seconds)


Time (Seconds)

