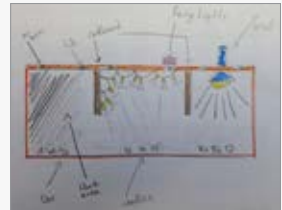


The Wonderful World of Woodlice

Background

Woodlice offer an excellent model organism for student investigations. Students learn how to work carefully and ethically with animals in the laboratory. They also gain experience with the investigative skills such as forming hypotheses, designing experiments, presenting data, and communicating their findings using a variety of media. Formative assessment is carried out using rubrics. A digital portfolio can be created by each student using the SeeSaw app or similar.



You will need...

- ✓ Pooters,
- ✓ woodlice,
- ✓ large plastic box containing leaves,
- ✓ soil,
- ✓ twigs etc,
- ✓ cardboard boxes,
- ✓ trays,
- ✓ sticky tape,
- ✓ scissors,
- ✓ desk lamps,
- ✓ small fans.

Follow these steps

1. Students find and collect woodlice, which are kept in a "woodlice hotel" (plastic box with decaying leaves, soil, twigs etc.

2. Students choose one environmental factor to investigate, form a hypothesis and plan their investigation
3. Provide students with materials to construct "choice chambers" from cheap and readily available materials (cardboard, shoe boxes, paper, tape etc.).
4. By giving woodlice choices, students collect data on what conditions the woodlice prefer (e.g. light or dark, humid or dry, warm or cold, windy or sheltered etc.)

So what happened?

Students built choice chambers and observed the preferences of woodlice given choices. Woodlice are observed to move to dark/humid/sheltered areas when given a choice.

Students can present their data in charts, draw conclusions, and relate their findings to their hypotheses.

What next?

- ✓ This investigation also lends itself to using video, photography, screen casts and other media to compile a laboratory investigation digital portfolio by way of a lab report.
- ✓ Students can investigate further by looking at the effect of temperature on metabolic rate by measuring respirations rates (using a traditional respirometer or a digital carbon dioxide gas sensor).
- ✓ Run a debate on the ethics of experimenting on animals in the laboratory.