



EVERGREEN

Teacher's Corner Lesson Plans

*Helping Teachers and Students Make the Most of
their Outdoor Classroom*

evergreen.ca

Is This Habitat For Me? – Part 2 (of 3)*†

Pamela Miller

Grade level: 4

Provincial curriculum links: Ontario

Subject: Science and Technology

Keywords: earthworm, population, habitat, environmental conditions

Description

Students answer the question “Where in the schoolyard will you find the greatest number of earthworms?” This is lesson 2 out of a total of 3 lessons.

Curriculum Framework

- See Part 1

Preparation

Preparation Time:

- 10 minutes

Length of lesson:

- 45-75 minutes
 - 5 min Introduction to Environmental Conditions
 - 10 min Research Proposal
 - 30 min Making drawings and captions
 - 10 min Sharing and group conclusions
 - 30 min Concept Mapping

* This exercise is adapted from *Teaching in the Outdoor Classroom*, Evergreen/TDSB Summer Institute, 2007, 82 pages.

† Submitted by: Pamela Miller

Resources required:

- Per Research Team
 - Soil thermometer
 - Soil Moisture meter
 - measuring spoon
 - Paper towel
 - pH paper or meter
 - 250 ml measuring cup
 - lg container of water
 - large coffee can
 - stop watch
 - set of paint colour strips for soil colours
 - set of sand paper squares-variety of grades on binder ring
 - Data Collection Sheet Pencil (1 per data sheet)
 - Clipboard
 - Research Proposal
- Teacher Resources (same as Part 1)
 - Chart paper and markers or black/white board with chalk/markers
 - Class Data Collection Sheet
 - Area markers/pylons or map to indicate study areas
 - Resources re: earthworms
 - Pictures of or real objects of aquarium with living creature, nest, drinking glass and water, mouldy fruit, potted plant, schoolyard.

Procedure

1. Have the class choose one environmental condition that may have the largest impact on the population of worms in the schoolyard. Work with the class to complete a Research Proposal, to conduct the research.
 - a. Record results from study plots on Class "Is this a Habitat for Me?" chart.
2. Have students design and conduct simple scientific investigations for each of the remaining environmental conditions, to determine which environmental condition(s) have the greatest impact on the population of earthworms. Research Teams could each take on one of the remaining conditions.
 - a. Have students complete a Research Proposal for each study and to submit to you and peers for review and planning purposes. Continue to record results.

Student Assessment and Evaluation

See Part 3

Enrichment and Extension Activities

- Ask students to change the focus from worm populations to other soil dwellers, macro and/or microscopic. Design and conduct simple scientific investigations regarding their habitats and populations in the schoolyard.
- Design the ideal school yard, balancing the needs of students and student activities but also of earthworms and their habitats.

Educator Notes

- Although combining Parts 1 & 2 into one field work session will maximize time outside, it is recommended to complete the field work over a number of days.
- Part 3 gives the background necessary for the literacy activity "Postcards from the Perfect Plot"

References/Resources

The Schoolyard Ecosystem, Mid-Hudson Urban Ecosystem Studies Project
Soil Dweller Experiment, Mike Schneider, Students in a Project Learning Approach to Schoolyard Habitat Development, <http://web.stclair.k12.il.us>