

Activity 20

Predictions vs. Actual

Rationale: The counting/weighing to obtain the actual values for the worms, cocoons, and castings is a tedious and potentially harmful activity. To be able to take samples and accurately predict values is an important part of ecological research.

Objectives

- 1) Use collected sample data to predict totals.
- 2) Compare predicted values to actual values.

PDE Standards

Science and Technology

3.1.7. A,B,C

3.2.7. A,B,C,D,E,F

3.6.7. A,B

3.7.7. A,B,C,D

Environment and Ecology

4.1.7. A,B,C

4.2.7. A,C

4.6.7. A,B,C

Math

2.1.8. A,B,D,G

2.2.8. A,B,F

2.3.8. A,B,D

2.4.8. A,B,D,F

2.5.8. A,B,C,D

2.6.8. A,B,C,E,F

2.7.8. B,C,D

2.8.8. F,G,H,I,J

2.11.8. A,B

Materials

Data tables

TI 83/84

Graphical Analysis (software)

Computer

Introduction

One of the most important aspects of science research is to be able to predict future values. This is especially true in situations when the collection of actual measurements is extremely difficult, might perturb the ecological system, or might be too tedious to get accurate values. Certainly two of the above constraints apply to this Habitat. The actual values will be collected one time to compare to predicted values. The amount of castings, worms, and cocoons are important aspects of the vermiculture

