

## Activity 18

# Analysis of Foodstuffs

**Rationale:** The mass of foodstuff added and the chemical characteristics will help determine the effects of the foodstuffs on the Habitat.

### Objectives

- 1) Determine the mass of the groups of foodstuffs.
- 2) Compare the mass of each food group and its chemical properties to the chemical changes of the Habitat.

### 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

### Materials

Data Tables

Mini bins\*

TI 83/84

Mature worms

Graphical Analysis

Computer

\* Mini bins can be made from large plastic containers (1 - 2 liters). Add clean wet bedding to the container. Punch holes in the bottom for excess water to drain. Punch larger holes in the side for air to enter (similar to the class habitat) and holes in the lid. These can be used with other group activities.

### Introduction

The mass of the foodstuffs added will add considerable water to the Habitat. This amount will be an approximation, but needs to be included in the calculations. The shredded newsprint is fairly self regulating in terms of its water content; that is, excess water can drain off. However, if it is observed that large amounts of high water content foodstuffs have been added in recent weeks, drainage should also be observed. The pH of the foodstuffs should also be recorded to compare to any changes in the pH of the runoff water and any changes in the pH of the vermicompost.

### Strategies

This will be one of the easiest activities for the students, requiring very little coaching. The data have been collected on a regular basis and the students have had sufficient practice with discovering existing relationships. The most important coaching aspect is to guide students to correct conclusions from appropriate results.



