

A Thin Slice of Soil

Everything Depends on the Soil

One of our most important natural resources is soil. All living things depend on it as a source of food, either directly or indirectly. Plants depend on the soil to anchor them in place. Soil stores water and nutrients which it then makes available for plant growth. Some animals eat only plants for food. These are called herbivores. Humans eat plants, but we also use animals for food. We are called omnivores. Some animals eat only other animals. These are called carnivores. But we all have something in common. All of our food can be traced back to plants growing in the soil.

Our food producing land is a limited resource. Farmers and ranchers in the United States work hard to produce enough food to feed everyone in this country, plus a large number of people in other countries. A farmer in the United States, on average, produces enough food to feed 144 people. They realize they must get maximum production out of their soil, while at the same time protecting it for future generations.

As world population continues to increase, each person's food producing portion of land is becoming smaller and smaller. This means farmers must work harder to grow more food on the land they are using. It is the responsibility of all of us to use the soil wisely, to insure a bright future.

Materials Needed for Lesson

Large Apple

Paring Knife

Procedure

1. Cut the apple into four equal parts. Three parts represent the oceans of the world. The fourth part represents the land area.
2. Cut the land section in half lengthwise. Now you have two one-eighth pieces. One section represents land such as deserts, swamps, Antarctic, arctic, and mountain regions. These regions are not suitable for man to live.
3. Slice the remaining one-eighth section into four equal parts. Three of these one-thirty second sections represent the areas of the world which are too rocky, too wet, too hot, or where soils are too poor for production, as well as areas developed by man.
4. Carefully peel the last one-thirty second section. This small bit of peeling represents the soil of our earth on which mankind depends for food production!
5. Discuss what this soil is used for. Possible questions:
 - What if this valuable top soil upon which man depends should suddenly disappear?
 - What must happen to the amount of food farmers grow if the world's population continues to increase while our earth's top soil remains the same?
 - Have the students make a pie chart depicting the percentages of land used to grow our food versus all the other areas of the world such as water or land regions.

Adapted from Project Food, Land & People Resources for Learning Facilitator Training.