

"Eat the Earth, " p.212. **The Growing Classroom: Garden-Based Science**. Jaffe, Roberta and Appel, Gary. Addison Publishing Company, 1990.

Eat the Earth

Description

An apple used to represent the earth is sliced into portions representing the oceans, land, farmland, and potable water.

Objective

To illustrate the percentage of the earth that is capable of supporting human needs.

Materials

A few apples
Knife



The earth has many natural resources that are very important to us. Can you name some of them? (soil, water, air, minerals) How are these resources important to us? (We could not live without them.) Can they be replaced? (no) Let's imagine that this apple is the planet earth. We know that the earth is made up of water and land. How much of the earth do you think is water? (Record guesses.) How much is land? (Record guesses.) (Cut one or two apples according to students' guesses.) Let's make an accurate representation. Our goal is to find out how much soil there is for us to grow our food in and how much water there is to drink.



1. Cut an apple into quarters and set three of them aside. The remaining quarter represents the part of the earth's surface not under salt water.
2. Next, cut this quarter in half and set one piece aside. Explain that the remaining piece represents the part of the earth that is suitable for human habitation. The other part is too cold, too dry, too mountainous, or too hot.
3. Now cut the part on which humans can live into four equal slices. Rather thin, aren't they? Just one of these four small slices represents the part of the earth that supplies most of our food and clothing, the small part that is presently tilled. It is not too wet, not too cold, and not occupied by cities, factories, or highways.
4. Cut a very small piece from the remaining slice. This represents the $\frac{3}{100}$ of 1% of the earth's vast surface that contains potable water.



What does cutting the apples into portions tell you? Do we need our natural resources? Does it seem as if we have enough land to farm and enough water to drink? Who is responsible for taking care of these resources? How do we want to treat the remaining healthy portion?