

Earth Apple

Source: Land Stewardship Project



Description: Students will observe a teacher demonstration which depicts the small amount of land on the earth which is suitable for producing food.

Learner Outcomes: Students will understand the small, finite portion of earth that provides food for all people and land dwelling animals.

Subjects: Agricultural Education, Science, Social Studies

Site: Classroom

Suggested Time: Portion of 1 class period

Group Size: Any

Materials: Apple, Knife

"Let's consider our world not as inherited from our parents but as borrowed from our children."

unknown Kenyan

Teacher Background

The following activity is a demonstration of the small amount of land on this planet that is suitable for growing food. Our planet and its resources are finite yet the population continues to expand. A fixed land resources base and the ever increasing number of people to feed cause each person's portion to become smaller.

Procedure

1. Take one large apple and tell the students that this apple represents the earth. Slice the apple into equal quarter pieces. Three slices represent the oceans of the planet. Only one quarter (one slice) represents the earth's land area.
2. Slice the $\frac{1}{4}$ piece that represents the land in half. One half of this quarter slice is inhospitable to humans: rocky mountains, swamps, polar regions, deserts. What fraction now remains? ($\frac{1}{8}$) This remaining piece is the land where people live and grow their food. Slice the $\frac{1}{8}$ piece into four pieces and put three aside.
3. What fraction do you have left? ($\frac{1}{32}$) The $\frac{3}{32}$ fraction set aside represents the areas of land that are too steep, too rocky, too wet, too cold or where the soil is too poor to grow food.

The $\frac{3}{32}$ pieces also represent the shopping malls, the cities, parks, factories, suburbs, schools, parking lots and other places where people live but cannot/do not grow food.

4. Very carefully peel the $\frac{1}{32}$ slice of the apple. This tiny piece of apple peel represents the very thin surface of the earth's crust (the topsoil, 2 inches to 5 feet deep) upon which all people, animals and plants depend for their food and survival.

