

Paper Apple



Age: 3rd and 4th Grade

Time: 15-20 minutes (depends on age)

Group Size: up to 30

By the end of this activity, participants will be able identify the different types of land on earth and their percentages.

Materials needed:

- Apple worksheets
- Crayons
- Scissors

Instructions

This activity is a variation on the apple activity in *Nourishing the Planet in the 21st Century* middle and high school. This activity can be done in conjunction with the original apple activity. The activity uses an apple as a model of the Earth.

The world is a big place and the land is used in many different ways. As the world's population continues to grow, demand for food production will increase.

1. Ask for the group to list ways the space on Earth is used.
 - a. Lists may include: farming, homes, industry, parks, recreation, water, wetlands, mountains, desert, ice, uninhabitable, etc.
2. Explain that the apple represents the Earth. Ask "How much of the Earth's surface is devoted to farming?"
3. Using the list created with the group, encourage students to look at the different pieces of the apple and determine which piece correlates with which use.
 - a. $\frac{3}{4}$ is water (largest piece)
 - b. $\frac{1}{8}$ piece (second largest piece) represents the surface that is uninhabitable for people and crops, such as the polar regions, deserts, swamps, and high or rocky mountains.
 - c. $\frac{3}{32}$, the third largest piece, is habitable land. (developed areas, cities, highways and areas to rocky, steep or poor soil)
 - d. The smallest piece, $\frac{1}{32}$, is the amount of land available for farming to grow the food needed to feed all the people on the Earth.

4. Then have the participants draw/color the pieces to match what they represent.
5. Cut the pieces out and glue together to make the apple (Earth).

Explain that because we put land to so many different uses, the amount devoted to farming has hardly changed during the past 50 years. Scientists are worried about how we will feed the world's growing population in the next 50 years.

Educators can also number the pieces so teachers can instruct students, "pick up piece #1," since the smaller pieces look so similar.









