

The Earth as an Apple



Using an apple as a symbol of the Earth, become aware of the small fraction of the Earth's limited land that is used to produce food. Learn the importance of soil to agriculture and food production and understand the value and needs of the soil to be maintained.

Materials:

- Large apple
- Knife
- Cutting board
- Ask an adult to help with this activity.

Activity:

1. The apple represents planet Earth. We're going to cut the apple into pieces to see how much of the Earth can be used to grow food for more than 7 billion people and all the animals in our care.

2. How much of the world is water? (Cut the apple lengthwise in four equal parts and take away three.) These three parts represent the water on Earth. Nearly $3/4$ or 75% of the Earth is covered in water.

3. How much of the land is too hot or too cold to grow crops? (Cut the remaining quarter in half lengthwise and take away half.) This half represents the areas on Earth that are too hot, too cold, or too wet for the plants we eat to grow. One-eighth ($1/8$) of the Earth has land in a climate that is unable to grow or produce food.

4. Can we grow food on all of the remaining land? (Cut the remaining portion crosswise into four equal parts and take away three.) These three parts represent areas of Earth where the plants we eat can't grow roots into the ground. We call these surfaces impervious, which means incapable of penetrating or being passed through. The fourth portion – only $1/32$ of Earth – represents the land that can grow crops for the 7+ billion people and animals on Earth.

5. Can we grow food to the core of the Earth? (Peel the skin off the remaining section.) This skin represents topsoil, the part of the soil that plants grow in. This is the amount of soil on planet Earth that grows the food to feed all the people and animals that live around the world.