

FULTON FRESH KITCHEN SCIENCE

Apple as the Earth's Soil

Cultivable soil is an important natural resource. But how much is there?

SAFETY FIRST! Youth should always have parent supervision when performing science experiments.

MATERIALS

- 1 apple, medium to large sized
- Knife
- Cutting board
- Paper towels

PROCEDURE

1. Before starting, wash your hands and make sure your cutting board and workspace are clean. The apple in your experiment can be eaten as a snack when you are finished!
2. The apple represents our Earth. How much of our Earth is covered by water? That's right about 75%. Carefully cut your apple into four equal pieces. Set aside three of the pieces. These three pieces represent the water on our planet - oceans, lakes, rivers, and streams. The 1/4 of an apple that remains represents land on Earth.
3. Carefully cut your "land" in half. About half of the land on Earth is not able to produce food, fiber, or lumber because of extreme conditions. These include the polar ice caps and high mountain ranges. Discard one of your halves. You now have 1/8 of your original apple left.
4. Carefully cut your remaining piece of apple into four equal pieces. Discard three of the four pieces. Those three pieces represent land where it is too hot, too dry, too cold, and too wet to grow food, fiber, or lumber. You now have 1/32 of your apple remaining.
5. Carefully peel the skin off of your remaining 1/32 piece of apple. This tiny piece of skin represents the amount of soil that is available to produce all the food, fiber, lumber that the world's population uses every day!

This lesson was adapted from the Soil Science Society of America:
<https://www.soils.org/files/sssaiys/apple-as-world-soil.pdf>

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Apple as the Earth's Soil

Why did the apple stop in the middle of the road? Because he ran out of juice!

DID YOU KNOW?

Soil is a vital part of our environment and our lives, as is shown by these facts from the Soil Science Society of America:

- Soils are the material which support the growth of all kinds of plants - as small as a blade of grass and as large as a tree.
- Soils absorb, hold, release, alter, and purify water.
- Soils provide habitat for animals that live in the soil (such as groundhogs and mice) to organisms (such as bacteria and fungi), that account for most of the living things on Earth.
- Soils process recycled nutrients, including carbon, so that living things can use them over and over again.

LEARN MORE

Dig deeper into dirt on the Soil Science Society of America website! This comprehensive resource has soil experiments, games, career connections, and more! Visit www.soils4kids.org to get started.

CAREER CONNECTION

Do you like playing in the dirt? Then consider a future career related to soil such as a crop & soil scientist or an agricultural educator.

Share a picture of your experiment with us on social media with the hashtag #localfoodmadefun.

Visit our website or social media channels for a follow-along video of this experiment.

www.ugaextension.org/fulton

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