

A Slice of Soil

Grade Level: 2-4

Objective: After completing this activity, students will have a better understanding of our natural resources and how agriculture is important to their future.

Common Core: Language Arts: CCSS.ELA-Literacy.RI.4.7; RF.4.4; W.4.1; W.4.9
Mathematics: CCSS.Math.Content.4.NF.3

Next Generation Science Standards:

Interdependent Relationships in Ecosystems: 3-LS4-1; 3-LS4-4; 3-LS2-1

Inheritance and Variation of Traits: Life Cycles and Traits: 3-LS3-2

Energy: 4-PS3-4; ETS1.A



Suggested Reading Materials:

IAITC Soil Ag Mag

[A Handful of Dirt](#) by Raymond Bial | ISBN: 0802786987

What You Will Need:

- 1 Apple
- Paring Knife
- Cutting Board

Activity Instructions:

Soil is one of our most important natural resources on the earth's surface. Many living things depend on it for food. People do, too. Not all soil is good enough for plants to grow. Complete this activity to learn just how little soil we have to grow food.

1. Cut an apple into four equal parts. Three parts represent the oceans of the world. The fourth part represents the land area.
2. Cut the land section in half lengthwise. Now you have two 1/8 pieces. One section represents land such as deserts, swamps, Antarctic, Arctic, and mountain regions. The other 1/8 section represents land where man can live and may or may not be able to grow food.
3. Slice this 1/8 section crosswise into four equal parts. Three of these 1/32 sections represent the areas of the world that are too rocky, too wet, too hot, or where soils are too poor to grow food. Plus, we can't grow food on some land because cities and other man-made structures are built on it.
4. Carefully peel the last 1/32 section. The peel on this small piece represents the amount of soil on which we have to grow food. This amount of soil will never get any bigger.

Extended Response:

Why is soil so important? Think about its impact on agriculture and the foods you eat. Be sure to include your own experiences along with information from the Soil Ag Mag to support your answer.