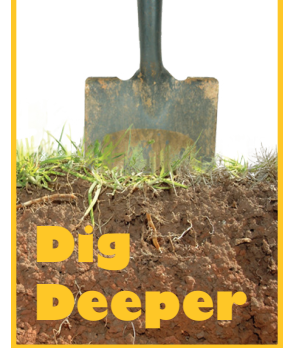


Soil Lessons



How Much Soil is There?



Materials Needed

- Apple(s)
- One sharp knife (for demonstration) or plastic knives (for student participation)
- Cutting board
- Paper towels

Introduction

All living things depend on soil to live. What are some of our important natural resources? Students may provide answers such as oil, water, coal, trees, animals, gold, etc. All of those are important natural resources, but we often forget to mention one of our most important natural resources: soil.

Directions

Pass out pie chart graphs. Cut the unpeeled apple as you explain the fractions.

1. Pretend that this apple is planet Earth. Notice how its skin hugs and protects the surface. Cut the apple in quarters. Three of the four quarters represent how much of the earth is covered with water - oceans, lakes, rivers and streams. (Ask older students if they know what percentage that is. Set three of four quarters aside.
2. That leaves just one quarter (25 percent) of our earth as dry land area. Take this quarter and cut it in half. One of these halves represents land that is desert, swamps, polar or mountainous regions where it is too hot, too cold or too high to be productive. Set this half aside.
3. The other half (one-eighth or 12.5% of the apple) represents where man can live and grow crops. Slice this section lengthwise into four equal parts. Now you have four $\frac{1}{32}$ nds (3%) of an apple.
 - a. The first of these represents land too wet for food production. It isn't swamp land, but it may flood during the growing season.
 - b. The second section represents land that is too rocky and poor to grow food.
 - c. A third $\frac{1}{32}$ nd represents areas that are too hot. Set these three sections aside.
4. The last section ($\frac{1}{32}$ nds or 3% of the apple) represents the area of the world developed by man. Now, carefully peel the last $\frac{1}{32}$ nd section. This small bit of peeling (3% of the apple) represents the percentage of our planet earth that is soil of which humans depend upon for food production and other uses.

So, like water and air, soil is a very important and limited natural resource.

Follow-up activities

Have older students rank resources in order of importance. Are some resources equally important for life? Are others important because we rely on them in our modern world? Have students (or show younger students) areas on a map or globe where crops cannot grow.

Source: Adapted with permission by SSSA from Oklahoma Ag in the Classroom.

Soil Science Society of America
www.soils.org

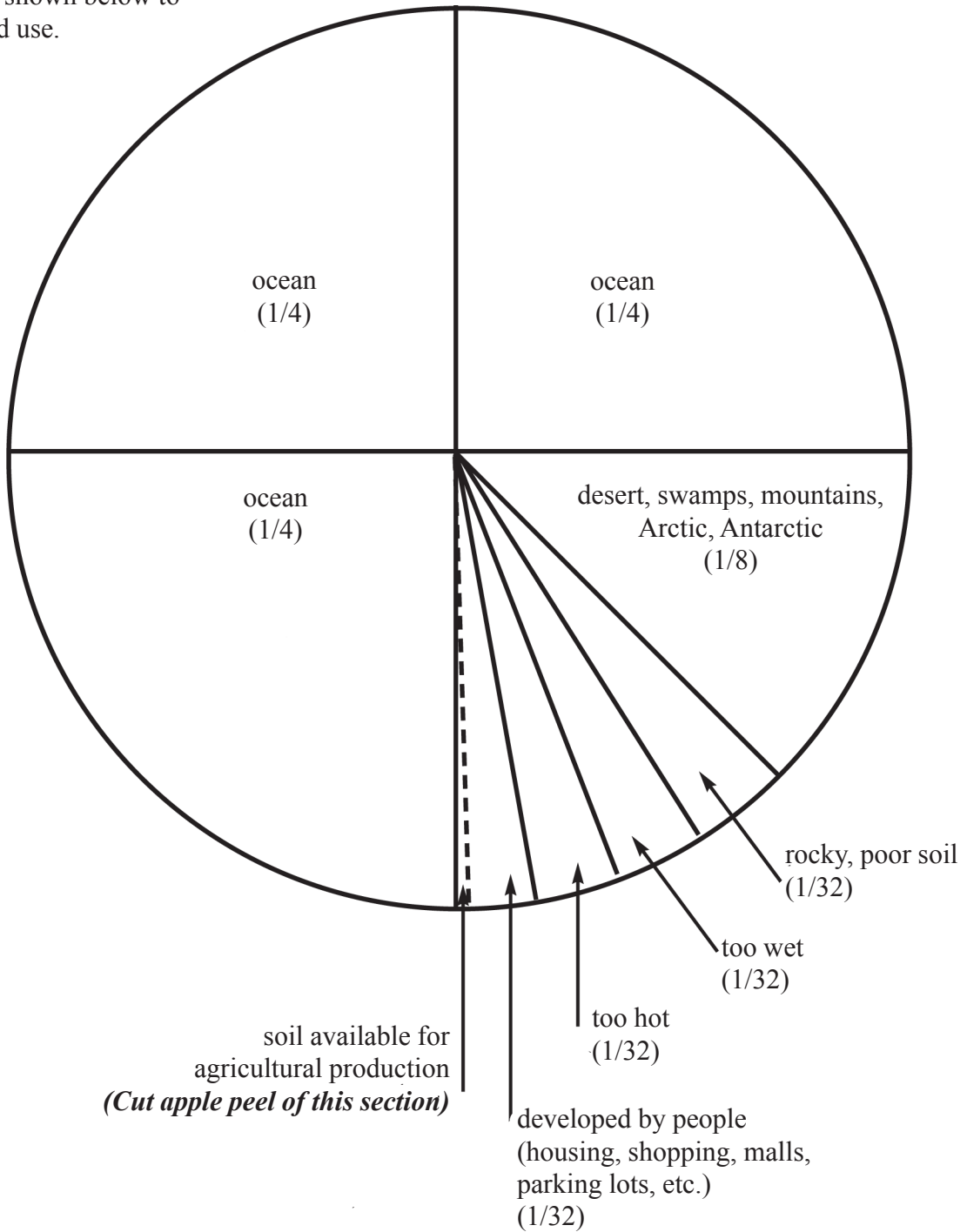


Name _____

Reference Sheet
*For teacher use

Earth's Soil Resources

Cut apple as shown below to represent and use.



Name _____

Earth's Soil Resources

Label the segments of the graph, using the information your teacher reads to you. When you have finished, color the graph, using a different color for each segment.

