

Subject area; Science
Grade level: 1st
Unit name: Earth Materials

Unit goals:

Science Standards

GLE 0107.7.1 Realize that water, rocks, soil, living organisms, and man-made objects make up the earth's surface.

GLE 0107.7.2 Classify earth materials according to their physical properties.

0107.7.1 Create a diagram of the school grounds to identify where water, rocks, soil, living organisms, and man-made objects are found.

0107.7.2 Sample areas of the school grounds to identify where different materials are found.

0107.7.3 Use bagged samples of earth materials or pictures from different areas to classify materials according to their use.

Social Studies Standards

1.3.02d Describe the concept of human features as in cities, buildings, farms, roads, and railroads.

1.3.03b Define natural resources and explain how people are dependent on them.

1.3.03c Compare and contrast natural and artificial features of the earth.

Math Standards

GLE 0106.5.1 Use various representations to display and compare data.

0106.5.4 Count and compare collected data.

Introductory procedures:

Tell students that for homework, everyone needs to bring in something from their yard to share for science the next day. Give every student a Ziploc bag to use for their yard sample. Purposely be vague about what students can bring, just emphasize that it must fit in the bag.

Before beginning the unit, have students write 5 things they know about the earth and its features.

Day One:

Have students lay out yard sample on desks. Allow each student to share his/her sample from home. Explain that some things found outside are made by people and some occur naturally in nature.

Do Natural Vs. Man Made Power Point Presentation as a class.

Ask each student to decide if his/her sample is a man made or natural object.

Either draw a bar graph on the board or use a pocket chart to make a pictograph. Label the bottom 2 columns manmade and natural. Label the side with numbers. Have students either color in a square or draw their sample and place in appropriate spot on graph. Compare results. Did students find more manmade or natural items in their yards? Discuss what the different yard samples might be used for or what could be made from these materials.

Day Two:

Review the concepts natural and manmade.

Do "Matching Resources" handout (below).

As a class make a list of natural resources or earth features. Ex. Water, wood, rocks, mountains, soils, plants, etc. Divide students into 5 groups. Let each group chose a natural resource. Then have each groups brainstorm for ways their natural resource can be used or items it can be made into. Give each group 5 minutes. At the end of 5 minutes, see which group came up with the most uses.

Read From Tomatoes to Ketchup by Inez Snyder and From Trees to Paper to students and discuss.

Day Three:

Read and discuss From Milk to Ice Cream by Inez Snyder.

As a group make a school and school grounds map. Use posterboard and pencils. At this point in the unit, just make an outline map of the school. Ex. a big square for playground, a large rectangle for school, a large rectangle for parking lot, etc. Do not include detailed features, as they will be added later.

Give each student a Natural Resources Checklist. Take a natural resources walk. Tell students to find as many of these as possible and check off on the list as they spot the resource.

Day Four:

Read and discuss From Beans to Chocolate by Inez Snyder.

Revisit the natural resources walk taken yesterday. Ask students where they found each item on their list. Discuss the man made features that were seen.

As a group, add natural and manmade features to the class map, make sure to include land features such as hills, mountains, creeks. etc. Then have students make their own copy of the class map. Students can use plain white paper and coloring pencils.

As an extended activity, students could use an index card to make a map key.

Day Five:

Watch the video *The Magic School Bus Explores Inside the Earth* and discuss. Have each child share something about earth's surface or crust that was learned in the video.

As a whole group, visit the website

<http://kids.nationalgeographic.com/Games/PuzzlesQuizzes/Quizyournoodle-water> together. Read questions and answers together.

Also whole group read and discuss the 7 ocean slides at this site:

<http://kids.nationalgeographic.com/Photos/Gallery/Oceans>

Do "Using Resources" handout (below).

As an assessment tool, have each student write 5 things they learned about earth and it's features in this unit. Compare this writing to the writing done at the beginning of the unit. Student's writing should be much more detailed and accurate.

Unit Extension:

In addition to the activities listed here, students could do the "Soil from Every State" project.

Materials or media:

Posterboard, pencils, coloring pencils, computer, television

Books:

From Tomatoes to Ketchup, From Trees to Paper, From Beans to Chocolate, & From Milk to Ice Cream all by Inez Snyder (Scholastic)

Video - *The Magic School Bus Explores Inside the Earth* (Scholastic)

Websites:

<http://kids.nationalgeographic.com/Games/PuzzlesQuizzes/Quizyournoodle-water>

<http://kids.nationalgeographic.com/Photos/Gallery/Oceans>

Assessment:

Before beginning the unit, have students write 5 things they know about the earth and its features. At the end of the unit, have students write 5 things they learned about earth and its surface. The second writing sample should be much more detailed and accurate than the first.

Name

Natural Resources Checklist

_____ water

_____ grass

_____ soil

_____ trees

_____ plants

_____ rocks

_____ animals

List at least 2 man made features you found on your walk.

Name

Matching Resources

Cut and glue the picture to the correct type of resource.

Natural		Manmade	
Natural		Manmade	
Natural		Manmade	



Name

Using Resources

List one thing that this resource can be used for or made into.

1. water _____

2. tree _____

3. sand _____

4. rocks _____

5. gold _____