

LETTER TO PARENTS

Cut here and paste onto school letterhead before making copies.

SCIENCE NEWS

Dear Parents,

Our class is beginning a new science unit using the **FOSS Solid Earth Module**. We will investigate a selection of the most common rocks and minerals that make up Earth's crust, and learn some techniques that geologists use to identify them.

Geology requires analysis. To develop analytical skills and techniques, we will first investigate simulated rocks called mock rocks. We will observe them, break them apart, dissolve them in water, and evaporate the liquid to discover the ingredients from which our rocks are made. We will then move on to real **rocks** and **minerals**, using scratch tools and acid (vinegar) to test for specific minerals. Finally we will look at granite, the base rock from which continents are made, and analyze the minerals it contains.



Later we will look at examples of the three kinds of rock found on Earth, igneous, metamorphic, and sedimentary, and discover the fundamental processes that give rise to each group. We'll consider how one kind of rock can be transformed into another in a succession of processes known as the rock cycle.

Through stream-table investigations we will explore erosion and deposition. We will study how changes in the earth can be due to slow processes such as erosion, as well as rapid processes, such as landslides, volcanic eruptions, and earthquakes.

You can increase your child's understanding and interest in earth materials by asking him or her to talk about the investigations we are doing at school. You and your child may want to start a rock collection, or visit the library or (if possible) a rock and mineral display, to expand your rock and mineral knowledge. A visit to a landscape materials center or a jewelry store (gems are minerals) can expose the broad range of uses for earth materials.

Watch for Home/School Connection sheets that I will be sending home from time to time. These describe ways the whole family can look more closely at rocks and minerals around your home. Your child will be asked to bring a rock or mineral to class for a few weeks to begin a class collection. He or she may choose to bring a special sample you picked up on a family outing, or a rock collected right around the neighborhood.

We're looking forward to weeks of fun with rocks and minerals and landforms! If you have questions or comments, or have expertise you would like to share with the class, please drop me a note.

Name _____

Date _____

HOME/SCHOOL CONNECTION

INVESTIGATION 2: SCRATCH TEST

BIRTHSTONES

Tell your family what you learned about birthstones and the difference between rocks and minerals.

Ask your family and friends when their birthday is. See if they know their birthstone. (If they don't, you can tell them!) Complete the chart below. Then make a bar graph to show which month has the most birthdays.

- January..... Garnet
- February Amethyst
- March Aquamarine
- AprilDiamond
- May Emerald
- June.....Alexandrite
- July Ruby
- August Peridot
- September.....Sapphire
- October Opal
- November..... Topaz
- December..... Turquoise

| | Name of person | Birthday month |
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| Garnet | Amethyst | Aquamarine | Diamond | Emerald | Alexandrite | Ruby | Peridot | Sapphire | Opal | Topaz | Turquoise |

HOME/SCHOOL CONNECTION

INVESTIGATION 4: TAKE IT FOR GRANITE

EARTH MATERIALS HUNT

Use the clues to find items around your house that are made of earth materials.

See if you can find something made from bauxite. Bauxite (aluminum) can be refined into a very thin metal good for packaging liquids.

See if you can find something beautiful that someone might wear that is made from an earth material.

Sometimes people use earth materials to make lamps and other decorative items for the home. Can you find something like that?

Look at the thermometer you use to find out if you have a fever when you're sick. Which part of the thermometer do you think is made from earth materials?

Look outside. Can you find something that you walk on every day that is made from earth materials?

Can you think of a place that you have visited that had some interesting rocks or minerals? What is the name of the place? What was so interesting?

There is an earth material that most people eat all the time. Imagine that! Its mineral name is halite. It's shaped like little white cubes, and you use it a lot in cooking.
