PARENT LETTER

Dear Parent,

Your child is beginning a unit created at the Battle Creek Area Mathematics and Science Center. This unit was designed to promote science and engineering literacy and integrate reading and writing skills into high-interest science content. During the next twelve weeks, your child will be actively involved with the *Changing Earth: Today and Over Time* unit. This unit is geared for second graders and focuses on the following main areas of study:

1. Describe major surface features of Earth, landforms, and bodies of water.
2. Describe how water exists on Earth as a solid and a liquid.
3. Develop models to explain how wind and water change the shape of the land.
4. Demonstrate how changes to the shape of the land can occur slowly and rapidly.
5. Obtain information from media and text to explain rapid changes in the shape of the land caused by landslides, earthquakes, and volcanoes.
6. Use information to solve an erosion problem using the Engineering Design Plan.

During this unit of study, your child will learn about landforms and bodies of water. By observing pictures and making models, he or she will begin to describe different types of land, such as mountains, hills, valleys, and plains, and bodies of water, such as streams, rivers, lakes, and oceans. Your child will also recognize that Earth has more water than land areas.

Through observation, informational text, building models, and investigations your child will be describing how wind and water change the shape of the land and that the changes can occur quickly or over a very long period of time that cannot be observed in a lifetime.

Your child will be actively involved in the constructing of, and reflecting on, new scientific knowledge as he or she becomes a learner as well as a user of knowledge. Asking questions, developing solutions, interpreting and reconstructing information, and reflecting on his or her knowledge are all components incorporated into this unit.

Suggestions for activities to do at home are included with this letter. These activities will reinforce the concepts taught during this unit instruction.

May you enjoy quality time with your child while discussing the concepts involved with the unit. Let us know if we may be of assistance.

The Outreach Staff

Battle Creek Area Mathematics and Science Center

(269) 213-3904 or (269) 213-3905

ACTIVITIES TO DO AT HOME

1. Take a walk with your child around your yard, the neighborhood, or nearby park and look for signs of changes in the land due to wind and water. If you have access to a digital camera, take pictures of the eroded area and then return in a week or two to observe if there is further change. Have your child make a digital notebook of the changes over time.
2. If your yard has an area that erodes after a heavy rainstorm, brainstorm with your child how you might design and build a device together that reduces the erosion.
3. Make a flour-and-salt dough model with your child of an area that has landforms (mountains, plains, plateaus, and hills) and bodies of water (oceans, rivers, lakes, streams and ponds). You will need:

   3 cups flour

   1 cup salt

   1 cup water

   3 tablespoons of oil

   Mix the salt and flour in a bowl. Add water and oil gradually and form a ball. Knead the dough until it is mixed. Do an Internet search for physical or topographic maps and have your child select a region he or she would like to use for the model. Using the map as a guide, encourage your child to spread the dough out on a piece of cardboard and begin to make raised landforms, flat landforms, and different bodies of water. Let the model dry for one to two days and paint the different landforms and bodies of water. Have your child add a color key and explain the model to family members and friends.
4. Go to the library and check out books to read related to landforms and bodies of water. Example titles:

   Erosion: Changing Earth's Surface, by Robin Koontz

   How Mountains Are Made, by Kathleen Weidner Zoehfeld

   Where the River Begins, by Thomas Locker

   The Drop Goes Plop, by Sam Godwin

   The Four Oceans, by Wil Mara

   Wind, Water, Ice, by Susan Ring