

SCHOOL-HOME CONNECTION

Date

Dear Families,

We are getting ready to dive into our next science unit, *Oceans*. We begin our voyage into this exciting world by investigating the properties of ocean water. We will map the ocean floor and find out about waves, tides, and currents. On our journey, we will discover some of the plants and animals that live in the ocean. Through hands-on activities and science readings, we will explore the world ocean from deep dark trenches to shallow sunny tide pools.

Studies show that students learn science best by firsthand exploration. The hands-on activities in this unit will bring science alive! In addition, an *Oceans* reader will build communication and vocabulary skills, vital parts of science education.

The world ocean is the continuous body of salt water that circles our planet. Its waters cover over 70 percent of Earth's surface. Ocean water contains a large quantity of salts, which make it denser than fresh water. That's why salt water is more buoyant—that is, easier to float in! The oceans are full of energy and constantly moving. The most visible movement of ocean water is in waves. The regular rise and fall of the tides are another movement of ocean water. And currents are rivers of water flowing within the oceans. The oceans are also full of life. Several kinds of ocean habitats contain an amazing variety of marine plants and animals. In fact, Earth's smallest and largest life forms—microscopic plankton and the gigantic blue whale—live in the ocean.

Here are some of the hands-on activities we may do during our ocean adventure:

- ▶ Discover how the presence of salt increases the density of ocean water
- ▶ Make a three-dimensional model of the ocean floor
- ▶ Model the movement of waves and the formation of currents
- ▶ Use a Tidal Dial to understand and predict high and low tides
- ▶ Examine mollusk shells
- ▶ Model how a fish uses its swim bladder to move in the ocean

If you can, please help us collect some additional materials. We need empty 2-liter soda bottles with caps and pictures showing the seashore. You can send these to class any time during the unit.

Try this science experiment at home. Find out if fresh water or salt water freezes more quickly. Fill two paper cups half-full of tap water. Add 2 tsp of table salt to one cup and stir until it is completely dissolved. Mark an S on that cup. Put both cups in the freezer. Which cup of water freezes first? (The fresh water will freeze first because salt water freezes at a lower temperature. When ocean water freezes in very cold places, only the plain water freezes, leaving the salt behind.)

Catch the wave! Share your child's enthusiasm for discovery.

Sincerely yours,