THE OCEAN IS SALTY!

One of the ocean's best-known characteristics is that it is salty. The ocean's salinity affects both the water's density as well as the temperature at which it freezes. See for yourself!

IDEAS FOR SUPPLIES

- measuring cup
- salt
- measuring spoons
- fresh water
- spoon
- 4 plastic cups the same size (6 oz or larger)
- small plastic jewels
- food coloring

Start by making salt water: In the measuring cup, dissolve 3 tablespoons of salt in 1 cup of water. Stir to combine. Pour the salt water into one of the plastic cups until the cup is about three-quarters full. Fill a different plastic cup with the same amount of fresh water.

Predict whether you think a plastic jewel will float in the fresh water (Note: if you don't have plastic jewels, try using a small grape or a raw egg in its shell). Place it in the water.

Do you think the object will float in the salt water? Place it in the salt water. Record your observations.

Remove the objects from the cups and put both in the freezer. For the first two to three hours, check the cups every half hour. Observe and record what you see. Did the salt water or the fresh water freeze first? What happened after 24 hours?

Next, make a new batch of salt water, dissolving 3 tablespoons of salt in 1 cup of water in the measuring cup. Stir to combine. Pour the salt water into one of the plastic cups until the cup is about one-half full. Fill a second cup half full of fresh water. Add several drops of food coloring to the fresh water and stir to combine.

Add the colored water to the salt water, pouring down the edge of the cup. What happens? Do the solutions mix? Which solution is denser?

Try This

Repeat the experiments using sugar in one cup (3 tablespoons dissolved in 1 cup water) and baking soda in another (3 tablespoons dissolved in 1 cup water). Predict what will happen. What do your results tell you about these substances?

TEXT TO **WORLD**

Have you been near the ocean? What did it look like? Smell like? Feel like?

WORDS TO KNOW

density: a measure of how closely packed items are.