



Investigation 3:

Ocean Currents and Circulation



Key Question

Before you begin, first think about this key question.

What causes ocean currents?

In the last activity you discovered that energy, not water, is moved by ocean waves. Think about what you know about how water moves. What is an ocean current, and how is it different from a wave? In what directions do ocean currents move?

Share your thinking with others in your group and with your class. Keep a record of the discussion in your journal.



Materials Needed

For this investigation your group will need:

- two 2-L bottles
- clear, rectangular container (5.6 L/1.5 gallon)
- supply of warm water
- two 400 mL beakers
- food coloring (blue, red, and green)
- ice
- 3.5% salt solution
- salt
- tablespoon



Investigate

Part A: Surface Currents

1. Examine the map of ocean surface currents shown on the next page.

Look for any patterns you can see.