

WINDS AND WATERS

ACTIVITY 2

As you saw in the film *Galapagos: Nature's Wonderland*, scientists think that winds and waters brought plants and animals to the Galapagos Islands millions of years ago. Today, winds and waters are still important, because they bring food and rainfall to the islands.

create a mild climate on the islands, which are not as hot as most places on the Equator. These cold waters also carry nutrients that feed the islands' sea life. And the winds that push this current bring moisture to the islands, spreading a cloudy mist over the slopes of the volcanoes from May through December.



- **Panama Current:** This current flows south along the western coast of Central America, following the curve of the coastline. When it comes to the Equator, this current also turns west and flows toward the Galapagos Islands. The Panama Current brings warm water to the islands, which does not contain many nutrients for sea life. But the winds that push this current contain lots of moisture, which brings rainfall to the islands from December through May. This rainy season provides the plants and animals that live on the Galapagos Islands with fresh water.

When a steady wind blows across the ocean, it pushes the water along with it, creating what is called a *current*. A current is like a river flowing through the ocean, and it can carry water long distances from one place to another.



- **Cromwell Current:** This current is unusual because it is not caused by winds. Instead, it flows below the surface of the ocean, like an underground river. The Cromwell Current travels east along the Equator, carrying water from Asia across the whole width of the Pacific Ocean. Because this current flows deep, its waters are cold and filled with nutrients. When it reaches the Galapagos Islands, the current is forced upward along the coastline of the western islands, which chills those waters and fills them with nutrients for sea life.

The arrows on the map show three currents that come together at the Galapagos Islands. Read about these currents with your teacher, and write the name of each current on the correct answer space.

- **Humboldt Current:** This current flows north along the western coast of South America, bringing cold water up from the South Pole. When it comes to the Equator, the current turns west and flows toward the Galapagos Islands. The cold waters and cool winds of this current

Now use what you have learned about the currents of the Galapagos Islands to discuss how they help support life there.

1. Which currents bring food to the islands?
2. Which currents bring fresh water to the islands?
3. What could happen to the plants and animals of the Galapagos Islands if one of these three currents changed direction and missed the islands?