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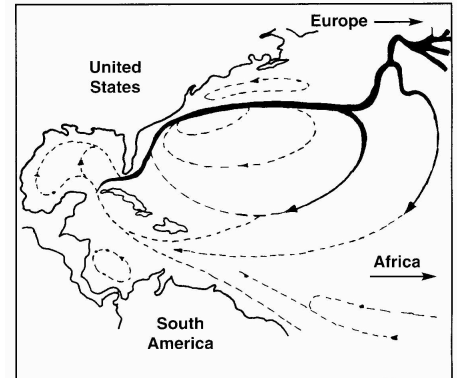
Write your notes
about what you are
reading in this space.

Science Shorts -8

A Highway in the Atlantic Ocean

Did you know that a river runs in the Atlantic Ocean? Actually, it's a long, powerful ocean current called the Gulf Stream. Its water flows along the coasts of North America and Europe.

The ocean has many currents. Some currents flow east to west. Others go south to north. Still others move up and down between the surface and the depths. The Gulf Stream is a wide river of warm water. It comes from the Equator and heads north. Flowing about 4 miles per hour (6.5kph), it follows the East Coast of the U.S. Near Cape Cod, Massachusetts, the current turns to the right and crosses the ocean. Then it splits. Some of the water goes south past Spain and Africa. The rest of the water flows along the coast of Great Britain and Ireland.



The Gulf Stream's warm water heats the air above it. Parts of Ireland are so warm that palm trees grow. Great Britain gets a much milder winter than Newfoundland, Canada, even though both places are the same distance north of the Equator. So Ireland and Great Britain's climate is warmer because of the ocean current called the Gulf Stream.

About 500 years ago, ship captains used the Gulf Stream as a "sea highway" to make their ocean voyages shorter. They knew that they would move faster if they sailed from America to Europe with the current. They could cover up to 75 more miles per day. On the trip from Europe to America, if they sailed against the current they could be slowed down so much that they would arrive two weeks later than planned.

Scientists wanted to know more about the current. Out at sea, sailors dropped glass bottles with notes inside. The notes said when and where they were dropped. Where the bottles were found on shore told about the water's direction and speed. Today scientists still study the Gulf Stream. Now they know that some of the water at the edge drifts away. Later it returns to the main current, forming a big circle. Recently it was learned that another current runs in the opposite direction deep below the Gulf Stream.

Fill in the bubble next to the best answer. You may look back at the story.

1. How long have people known there is a Gulf Stream?

- ☐ (a) at least 500 years
- ☐ (b) for about 50 years
- ☐ (c) it has just been discovered in the last few years
- ☐ (d) 10,000 years

2. What happens first?

- ☐ (a) The Gulf Stream flows across the ocean.
- ☐ (b) The Gulf Stream flows north from the equator.
- ☐ (c) The Gulf Stream splits with some water flowing north and the rest going south.
- ☐ (d) The Gulf Stream goes along the East Coast of the United States.

3. Why did a ship's captain need to know about the Gulf Stream?

- ☐ (a) so he could always avoid it
- ☐ (b) so he wouldn't get shipwrecked
- ☐ (c) so he could avoid dangerous currents
- ☐ (d) so he could use it to travel faster

4. Voyages means

- | | |
|---------------------------------------|-------------------------------------|
| <input type="radio"/> (a) waves. | <input type="radio"/> (c) journeys. |
| <input type="radio"/> (b) adventures. | <input type="radio"/> (d) problems. |

5. If the Gulf Stream changed where it flowed, how would the Earth be affected?

- ☐ (a) It would cause severe thunderstorms.
- ☐ (b) There would be huge undersea earthquakes.
- ☐ (c) There would be big volcanic eruptions.
- ☐ (d) The climate would change in several places.

6. Picture palm trees growing in Ireland. Why do they look out of place?

- ☐ (a) because usually only pine trees grow in Ireland
- ☐ (b) because palm trees usually only grow in the tropics
- ☐ (c) because Ireland is so small
- ☐ (d) because Ireland has no summer

7. Should we continue to study the Gulf Stream? Explain.
