



Student Worksheet: History of the Current Pair 1

Name: _____

Problem Statement

Mail sent from England to the American colonies was taking a long time to arrive—two months on average. And yet merchant ships, which were heavier and took a longer route than the mail packet ships, made the same trip from England in just a month and a half on average. It didn't seem to matter whether the packet ships sailing from England experienced good weather or bad, whether the wind was in their sails or not—something still held them back. What was causing the delays?

1. Create working groups of 6 students. Break each group of six into pairs.
2. Obtain the Pair 1 Student Worksheet with the profile of Benjamin Franklin and answer the Pair 1 questions.

Character Profiles: Benjamin Franklin - Postmaster General

In 1768, Benjamin Franklin was the postmaster general for the American colonies. He was summoned to travel to London where he was questioned by British authorities. They wanted to know why letters took much longer to get to New York than to New England ports when the two locations were "scarcely a day's sail apart" and why westward mail from Europe to America took weeks longer than the east-bound ships from America.

Franklin did not have an answer, but started an investigation. One piece of evidence came from his journal. Franklin recalled that on his return trip from London, in 1726, after several weeks at sea, the color of the water began to change. There were "hot damp winds," he noted in his journal, along with "an abundance of grass" and other seaweed visible in the water. To Franklin, the warmer air and warmer water suggested that the ship must be very near the coast, but the ship's captain scoffed at that idea. And, indeed, after six days, the water regained its former darker color, and the hot wind and abundant seaweed disappeared. The ship was nowhere near the coast.

Directions

Read the "Journal of Occurrences in My Voyage to Philadelphia on board the Berkshire, Henry Clark, Master. From London" on the History of the Current lesson web site.

Questions – Pair 1

1. From Franklin's journal entries, what are the significant notations about the water? About the winds? The organisms found in the sampling? The weather conditions?
2. Plot an approximate position of the ship on the chart. ([Link Atlantic Basin Hurricane Tracking Chart](#))
3. Locate and label Philadelphia on the chart.
4. Prior to the days of radio communications, often vessels would sail together (consort or companion vessels) during ocean crossings. What is mentioned about the Berkshire's consort vessel? What do you think happened to the boat?

After each pair has collected their respective information and answered their questions, regroup into their group of six. As a group, answer the following Assessment questions.

1. What tools were available to identify the current in Benjamin Franklin's time?

2. What type of water can be found in the Gulf Stream, warm or cold?

3. Where do you think the water in the Gulf Stream originates?

4. How do you think you could locate the approximate position of the Gulf Stream today? What tools could you use?

5. Which direction do you think the water in the Gulf Stream is flowing? Indicate the direction of water flow on the chart.

6. Look at these archived satellite images of the Gulf Stream during the same time of year as Franklin's voyage in the Berkshire. On the tracking chart, sketch in the approximate northern boundary (edge of the orange-red area) of the Gulf Stream.

[Sept 30, 2000](#) or [Sept 30, 2000](#)

7. Mark the approximate location of the Berkshire on the tracking chart from Franklin's Sept. 30th journal entry. Where is the ship in relation to the Gulf Stream?

8. Look at the Franklin-Folger chart of the Gulf Stream, do you think it is accurate compared to what we know today? Explain.

9. Why would it be important to identify the Gulf Stream?

10. Why would it be important to identify other currents?