

History Team Project Guide

Your challenge is to research the histories of the countries along the route that *Great American II* sails. These can include (but are not limited to) the United Kingdom, Europe, Greenland, Iceland, Canada, and the United States. For your sources, use world history textbooks, encyclopedias, the sitesALIVE! website, CD-ROMs, etc.

1. Start by researching and summarizing the voyages of some famous sailors who have challenged the ocean. Include information on the following:
 - a. Hernando de Soto
 - b. Hernán Cortés
 - c. Vasco Nuñez de Balboa
 - d. Juan Ponce de León
 - e. Christopher Columbus
 - f. Captain James Cook

2. Find out about the history of commerce and trade routes in the regions through which *Great American II* will pass.

3. For each country along the way, make a “History Connections” digest. Include information about explorers and navigators who have met challenges in that country. Follow this outline in your reports:
 - a. Country:
 - b. Explorer/Navigator:
 - c. Challenge the person faced there:
 - d. How that person met the challenge:
 - e. Connections to *Ocean Challenge Live!*:
 - f. How does the explorer’s challenge compare to that of Rich Wilson?
 - g. What advice might this explorer have for Rich Wilson on *Great American II*?

Added Challenge

How is traveling in space like traveling on *Great American II*? What lessons might Skipper Wilson have for future travelers in outer space?

Nutrition & Health Team Project Guide

Your challenge is to learn about and report on the food, water, medical, and sleep needs of Rich Wilson aboard *Great American II*.

1. **Prepare for Your Job:** Interview a coach, athlete, nurse, doctor, or nutritionist to find answers to the following questions:
 - a. How many daily calories does a person doing hard physical labor 12 hours per day need to consume?
 - b. What foods are high in energy?
 - c. How much water does an adult under a lot of physical strain need each day?
 - d. Rich Wilson has had severe asthma since childhood. What is asthma? What special medical needs or concerns does a person with asthma have?
 - e. What kinds of medical supplies should people take on a long, non-stop ocean voyage?
 - f. How many hours of sleep should each crew member get during a 24-hour period? Since the crew members will be on alternating watches, how long should their watches be to allow each of them to get enough consecutive hours of sleep?
 - g. What other advice does the health expert have for two sailors on such a trip?
2. **Recommend Foods:** Make a list of the kinds of foods that Skipper Wilson should take along on his voyage. Remember there is no refrigerator on the boat.
3. **Food Consumption:** Design a balanced and practical menu that will provide the necessary calories and nutrients for Rich during a 24-hour period aboard *Great American II*.
4. **Water Consumption:** Rich gets his fresh drinking water from the ocean by using a machine called a desalinator. Figure out how much drinking water Rich has to make each day.
5. **Pack the Medicine Chest:** Make a list of the supplies that Rich should be sure to pack to provide for his health and medical needs.

Added Challenge

Find out how the Rich's nutritional and calorie needs will change as he travels along the race route. Make a calorie chart of foods you he should eat.

Navigation Team Project Guide

Your challenge is to create a Location Report. Use the chart below to weekly record the position (location) of the boat and its distance to the nearest landmass. In addition, predict the boat's position one week from the current report and calculate the average weekly distance traveled.

Week	Latitude Longitude	Distance/Direction to Nearest Land	Average Weekly Distance	Predicted Position for Next Week
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Added Challenge

Your predictions should improve each week as you learn more about the voyage. What kinds of things help you to make better predictions about the location of the boat? Calculate the average speed *Great American II* must travel to get to Boston in 15 days or less.

Geography & Environment Team Project Guide

Your challenge is to describe the countries and global regions that *Great American II* is passing, and the environmental issues facing these regions.

Week	Nearest Country/Region	Description of the Region	Environmental Issues of the Region
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Added Challenge

Research one environmental issue further to see if the problem exists in other parts of the world.

Energy & Mechanics Team Project Guide

Your challenge is to both research the basic physical setup of the boat and monitor the use of energy during the trip.

1. **The Physics of a Trimaran:** What is a trimaran and why is it built the way it is? To answer these questions, you need a picture of such a boat (found on the sitesALIVE! website), a list of its parts, and an understanding of sailing. You may also find information about trimarans and other sailing vessels from the essays, journals, and questions and answers on the website.
 - a. To find out further about sailboats, there are several options:
 - Call a boat dealer if you have one in your area. If you cannot find a boat dealer, then contact a boat manufacturer. How will you find such a business? Use the yellow pages from a seaport such as New York, Boston, etc.
 - Get a model of a sailboat from a hobby store and put it together. In this way, you will get to know the parts of a sailboat firsthand.
 - Conduct an interview with someone who has sailed a boat.
 - b. To report your information, create a key for a picture of a trimaran. For each labeled part, tell how it works and why it is important to the boat (Hint: you can use the boat diagrams on the sitesALIVE! website).
 - c. Find out and list the advantages and disadvantages of sailing monohulls (boats with one hull) and multihulls (boats with more than one hull, e.g., a trimaran).
 - d. Make a list of tools that should be included in an onboard toolbox to keep the sailboat in good repair. Remember that there is a limit on space and weight on board.
2. **Energy Advisors:** It is your job to give the team advice on their use of electricity. First, research the variety and amount of equipment presently aboard *Great American II* (listed on the sitesALIVE! website). Then, contact your local electric company for information about the use of electrical power for this equipment.
 - a. Make a list of the equipment on the boat that will require electricity.
 - b. Make a general list of suggested ways that Skipper Wilson can conserve electricity.
 - c. Make a list of ways the boat generates electricity (using the sun, wind, and boat's engine), and then find out more about these three methods of getting energy.
 - d. Keep a voyage energy log, using the table on the following page. Note any problems that causes Rich to use extra energy.

Energy & Mechanics Team Project Guide

Week	Extra Energy Use	How serious is the extra use?	Your advice to the crew about this situation
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Added Challenge

Set up an experiment in the classroom to determine how long different voltage batteries will power a light, and graph the results.

Information Team Project Guide

Your challenge is to update the following chart weekly. You can set up the chart on a bulletin board, if you prefer.

Week	Focus of Saturday Update	Significant Happenings from Daily Audio Updates	Special Events and Info
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Added Challenge

At the end of the trip, decide which week was the most challenging.

Weather Team Project Guide

As the “official” weather forecasting bureau, your challenge is to complete this chart and determine how the weather has affected Skipper Wilson’s progress as the trip proceeds. You can base your predictions on climate information available in an atlas. Each week, compare your predictions to actual weather conditions reported in the *Ocean Challenge Live!* Captain’s Log.

Week		Air Temperature	Sea Temperature	Wind Speed/ Direction	Rainfall
1	Prediction				
	Actual				
2	Prediction				
	Actual				
3	Prediction				
	Actual				
4	Prediction				
	Actual				
5	Prediction				
	Actual				
6	Prediction				
	Actual				
7	Prediction				
	Actual				
8	Prediction				
	Actual				
9	Prediction				
	Actual				
10	Prediction				
	Actual				
11	Prediction				
	Actual				
12	Prediction				
	Actual				

Added Challenge

Which week was the best for weather, and why? Which week was the worst for weather, and why? Research and report on these topics: magnetic vs. true north; ocean currents; trade winds; barometric pressure; high and low pressure systems; icebergs; and hurricanes.

Marine Life Team Project Guide

Your team's challenge is to research and report on the vast array of marine life found in the regions *Great American II* will pass, and to record wildlife sightings during the voyage.

1. Research the variety of fish, marine mammals, birds, plankton, and other organisms that populate the ocean, and learn about food chains and migrations.
2. Find out about the industries based in the regions through which *Great American II* will travel and the impact these industries have on marine life. Be sure to include fishing, oil exploration, whaling, shipping, etc.
3. Record wildlife sightings reported by Skipper Wilson and draw a food chain that links the animals spotted during the voyage.

Date	Wildlife Spotted	What It Eats	What Feeds on It?

Communications Team Project Guide

Your challenge is both to find out about the radio and satellite communications used on *Great American II* and to keep Skipper Wilson updated on what is going on in the world.

1. Research and report to the class on radio and satellite communications. Explain how various radio and satellite communications work and what the advantages are of each. Include the frequencies used and compare them with television, AM, and FM radio frequencies.
2. Create a weekly news digest to send to the crew. Your job is challenging because you can send only short messages, similar to telegrams. To practice this skill, read the news digest or world briefs section of the newspaper. Use the following questions to help you gather and organize information before writing your news piece.
 - a. What part of the news will you follow? Each member of the Communications Team should choose a different type of news to report about.

Team Member	News to Report

- b. Read the newspaper and choose the most important story in your news area. Next, write a brief report that relates the story in *20 words or less*.

NEWS TOPIC:

MY TWENTY WORDS:

- c. Check your story with another member of the team. Be sure that you have told the story clearly and within the word count.

Added Challenge

Translate your news into pictograms or another language.

Book & Movie Team Project Guide

Planning the Movie

Now that you have written a book telling the story of *Great American II's* voyage, plan a movie or play based on the same story. In order to do this, you must first write the scenario: a list of the scenes in the film. Use the table below to guide your work on each scene. Outline each additional scene in a similar fashion on a separate piece of paper. Be sure to include answers to the following questions:

1. **Music:** What music (if any) will you include in this scene?
2. **Actors:** Who should play the characters in this scene? (You can cast male or female actors for the roles.)
3. **Dialogue:** What should each character in this scene say?

Scene # 1		
Situation (problem or event)		Actions Taken
Scene Characters	Played by...	Music (if any)
Actor/Character	Dialogue	

Added Challenge

Make a video report of the voyage using the music and dramatic scenes you have planned.