

PLOTTING THE COURSE

You and your family navigators meet secretly to plan your voyage to your new homeland. Your route will determine what you bring and how many people you will be able to take with you. Assume that the closest the canoe can sail to the wind is 55 degrees. Use information you learned in science, from the field trip or other sources to help you.

Refer back to the article on settlement.

1. Where is your crew going? Name the island and give both latitude and longitude.
2. What is the total distance of your voyage? What direction do you need to sail?
3. Where do winds generally come from in the North Pacific? In the South Pacific? How fast are they?
4. Where do ocean currents come from in the North Pacific? In the South Pacific? How fast are they?
5. Will the wind be in your favor in summer? In winter? If the winds come from an unfavorable direction, what are your options?
6. Assuming you can sail $\frac{1}{3}$ of the wind speed, how fast can you sail? Use the formula $distance = rate \times time$ to calculate how long your journey will take. Assume that the maximum number of days you can be at sea is 30. Will your voyage require multiple segments? If so, where can you stop along the way to get more supplies?