



*Ocean Encounters:
"Young Scientists Program"*

Worksheet 2: Captain

You are the Captain of the vessel, which makes you responsible for:

1. The safety of the crew
2. The maintenance of the boat.

Use your knowledge of the **tides, winds, currents, and boat capabilities** to help your team figure out where to look for whales. Answering the following questions after reading the logs at www.oceanalliance.org will help!

Boat Statistics:

Average Speed with the wind = 6 kts.

Average Speed against the wind = 3 kts.

Amount of fuel the boat holds = 3300 gallons

In 24 hour day, we use 80 gallons of fuel.

We burn 3 ½ gallons per hour when motoring

When sailing, we don't burn any fuel

Questions

What is the maximum distance the boat can travel in 14 days if it is motoring?
How far can it travel if it sails half the time and motors half the time?

What is the prevailing wind direction around Sri Lanka during the month of May?

When is the Northeast Monsoon season?

In planning the leg with the scientists, why should a boat captain take a monsoon season into account?

How can you use the winds of the monsoon season to your advantage when tracking whales?

When looking for whales offshore, are tidal waves a possible threat?

What effect does the moon have on the ocean?

How will all this information help you when planning your route?