

Name _____

Latitude and Longitude

Go to: http://www.classzone.com/books/earth_science/terc/navigation/investigation.cfm,
Click on: 'How do Latitude and Longitude Coordinates Help us See Patterns on Earth?'

Step 1: Sea Surface Temperatures

1. How does sea surface temperature appear to change with latitude?
2. How does sea surface temperature appear to change with longitude?

Step 2: Gridding the Earth

1. What line on the grid would be considered the x-axis? _____
2. What line on the grid would be considered the y-axis? _____
3. Which lines (longitude or latitude) run from north to south? _____
4. Which lines (longitude or latitude) run from east to west? _____
5. Which line is the reference line for longitudes? _____
1. Which line is the reference line for latitudes? _____

Step 3: Locating Sea Surface Temperatures

Follow the instructions in the box below to generate a map of global sea surface temperatures. Proceed carefully; you will need to start over if you leave this page before you are finished.

1. How does sea surface temperature change along latitude lines?
2. How does sea surface temperature change along longitude lines?
3. What conclusion might you have drawn had you looked at global sea surface temperature along only one latitude line?

Step 4: Changes in Sea Surface Temperature over Time

1. Consider how the sea surface temperature pattern shifts over time. Does the location of the pattern change with respect to longitude or latitude? By how many degrees does the pattern shift?

Step 5: Sea Surface Temperature and Global Climate

1. What are the two direct reasons for sea surface temperature changes?
_____, _____
2. What months does the phenomena of El Nino occur? _____

Step 6: Using Space-Based Technology to Find Latitude and Longitude

1. What does GPS consist of?

2. Why is GPS important?