

## Unit VI Chapter 20

### *The Restless Sea: Tides, Waves and Currents*



#### Performance Standards

Demonstrate an understanding of the cause of ocean tides, waves and currents.

- SC.B.1.4.1 Understand how knowledge of energy is fundamental to all the scientific disciplines (e.g., the energy required for biological processes in living organisms and the energy required for building, erosion, and rebuilding of Earth).
- SC.D.1.4.1 Know how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents).
- SC.D.2.4.1 Understand the interconnectedness of the systems on Earth and the quality of life.
- SC.E.1.4.3 Know the various reasons that Earth is the only planet in our Solar System that appears to be capable of supporting life, as we know it.
- SC.G.2.4.3 Understand how genetic variation of offspring contributes to population control in an environment and the natural selection ensures that those who are the best adapted to their surroundings survive to reproduce.

The ocean is always in motion. Massive currents of water circulate around the globe. Waves crash on the beach and water is pushed and pulled by the tides.

#### STUDENT INSTRUCTIONS

1. Read chapter 20 pages 450-471 in your text and
  - a. write definitions or...
  - b. draw pictures or...
  - c. make diagrams for each of the 24 vocabulary words on page 474.
2. After reading each section of the chapter, answer the section review questions on pages 455, 462 and 471.
3. Complete the Extended Response question on the following page.

READ THINK EXPLAIN

4. Write an essay following the FCAT writing format explaining why the moon has a stronger influence on Earth's tides than the sun does.
5. Complete the Laboratory Investigation on page 472.
6. Turn in all completed work and ask your instructor for the Chapter 20 Test.

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