

Section 16.1 Ocean Circulation

This section discusses how movements of surface and deep-ocean waters occur.


Reading Strategy

Identifying Main Ideas: As you read, write the main idea of each topic in the table.

7PTS

Topic	Main Idea
Surface currents	a.
Gyres	b.
Ocean currents and climate	c.
Upwelling	d.
Density currents	e.
evaporation	f.
Sea Ice	g.

Surface Circulation

1.  Is the following sentence true or false? Friction between the ocean and the wind blowing across its surface cause ocean surface currents. _____

Match each definition with its term.

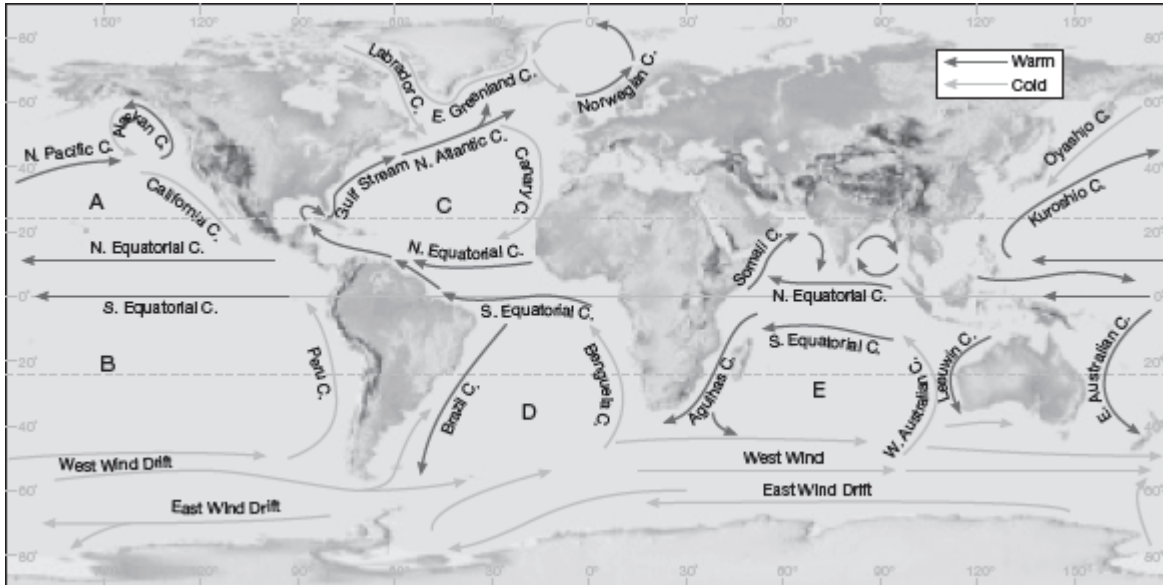
_____	Definition	Term
_____	2. large whirl of water within an ocean basin	a. gyre
_____	3. mass of ocean water that flows from place to place	b. upwelling
_____	4. rising of cold, deep ocean water to replace warmer surface water	c. surface current
_____	5. horizontal water movement in the upper part of the ocean's surface	d. ocean current

Chapter 16 The Dynamic Ocean

6. Select the appropriate letter on the map that identifies each of the following ocean currents.

5 PTS

- _____ North Atlantic Gyre
- _____ North Pacific Gyre
- _____ South Atlantic Gyre
- _____ South Pacific Gyre
- _____ Indian Ocean Gyre



7. 🌐 How does the Coriolis effect impact ocean currents in the Northern and Southern Hemispheres? _____
- _____
- _____
8. 🌐 Ocean currents moving from low-latitude to higher latitude regions transfer _____ from warmer to cooler areas.
9. 🌐 Is the following sentence true or false? Winds cause upwelling, which in turn causes an increase in dissolved nutrients at the ocean surface. _____

Deep-Ocean Circulation

10. What are density currents? _____
- _____
- _____
11. 🌐 Ocean water can increase in density as a result of a decrease in temperature or a(n) _____ in salinity.
12. Circle the letter of the area where the ocean water with the highest density occurs.
- a. at the equator
 - b. near Antarctica
 - c. in the Mediterranean Sea
 - d. near Australia

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