

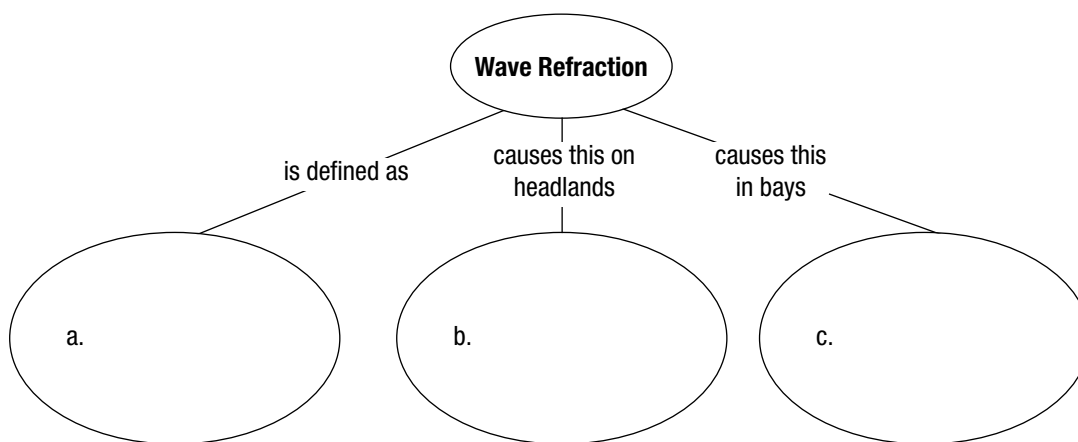
Chapter 16 The Dynamic Ocean

Section 16.3 Shoreline Processes and Features

This section explains how forces acting upon the ocean shoreline impact it and create landforms.

Reading Strategy

Summarizing Complete the concept map to organize what you know about refraction. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.



Forces Acting on the Shoreline

1. 🗣️ Is the following sentence true or false? Land features come and go along a shoreline because waves are constantly eroding, transporting, and depositing sediment there. _____
2. 🗣️ Circle the letter of the sentence that is true about the result of wave refraction.
 - a. Wave energy is concentrated in bays, causing erosion.
 - b. Wave action is weakened in bays, causing erosion.
 - c. Wave energy is concentrated at the end of headlands, causing erosion.
 - d. Wave action is weakened at the end of headlands, causing deposition.
3. What are longshore currents? _____

4. 🗣️ In a surf zone, longshore currents are able to easily move sediment because the water there is _____.

Chapter 16 The Dynamic Ocean

Erosional Features

5. How are erosional and depositional features along a shoreline alike and different? _____

6. When two sea caves on opposite sides of a headland are eroded and unite, a(n) _____ forms.

Depositional Features

7. Write the letter that identifies each of the following shoreline features in the figures. Then classify each feature as erosional or depositional.

baymouth bay _____

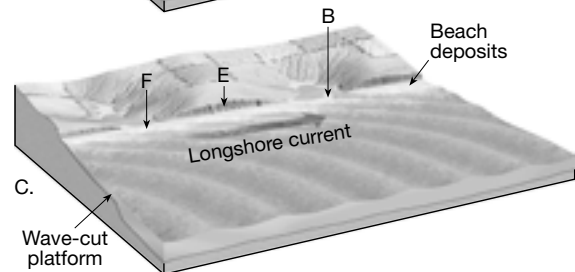
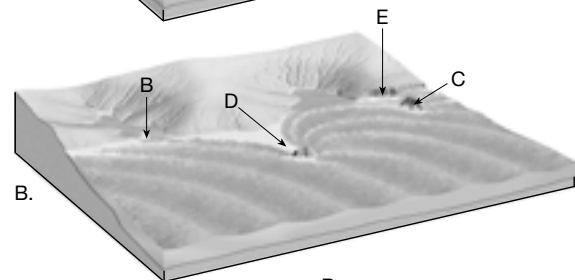
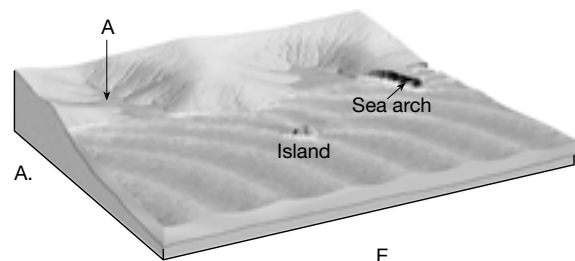
spit _____

sea stack _____

wave-cut cliff _____

tombolo _____

8. Circle the letter of a narrow sandbar that is parallel to but separate from a coastline.
- headland
 - spit
 - tombolo
 - barrier island



Stabilizing the Shore

9. Is the following sentence true or false? Groins are barriers built at right angles to beaches to protect them from sediment deposition.

10. Circle the letter of a structure built parallel to a shore to shield it from breaking waves.
- breakwater
 - spit
 - seawall
 - groin
11. The addition of large quantities of sand to the beach by people is called _____.

Chapter 16 The Dynamic Ocean

WordWise

Complete the sentences by using the scrambled vocabulary terms below.

eibarr danissl

nigrsp deti

endyits cturrnse

awev tricerfona

upingllew

evaw eighth

reyg

gwtahvelen

coane urctenr

chetf

ahbce

ooiislrc eectff

ewav eprido

The _____ is the deflection of ocean currents away from their original course as a result of Earth's rotation.

A(n) _____ has the greatest difference in height between successive high and low tides.

The accumulation of sediment found along the shore of a lake or an ocean is known as a(n) _____.

The rising of cold, deep ocean water to replace warmer surface water is known as _____.

The _____ is the time it takes one full wave to pass a fixed position.

The bending of waves, called _____, plays an important role in shoreline processes.

Vertical currents of ocean water that result from density differences among water masses are referred to as _____.

A horizontal distance called _____ is measured between two successive wave crests or troughs.

Narrow sandbars, or _____, are parallel to but separate from coastlines.

The vertical distance between a wave trough and a wave crest is the _____.

A large whirl of water within an ocean basin is a(n) _____.

The distance wind travels across the open ocean is called _____.

A(n) _____ is a mass of ocean water that flows from one place to another.