

## **Unit 10: Ocean Zones**

### **Unit Focus**

This unit describes the marine biome's two major regions: pelagic (water) and benthic (bottom) environments. Students will learn the characteristics of each of these marine environments and how marine organisms adapt to pelagic and benthic environments.

### **Student Goals**

1. Identify the pelagic and benthic environments within the marine biome and the zones into which each is further divided.
2. Recognize organisms that live within each marine zone or environment.
3. Give examples of adaptations marine organisms use to live in pelagic or benthic communities.





## Vocabulary

Study the vocabulary words and definitions below.

- abyssopelagic zone** ..... the depths of the ocean between 4,000 and 6,000 meters; in the aphotic or midnight zone
- aphotic zone** ..... area of ocean where light does not penetrate; also called the *midnight zone*
- bathypelagic zone** ..... the depths of the ocean between 1,000 and 4,000 meters; in the aphotic or midnight zone
- benthic** ..... bottom environment; refers to animals living on or in the seabed
- biome** ..... large-area ecosystem sharing similar characteristics; an environmental unit
- disphotic zone** ..... dimly lit region of the ocean where there is not enough light to carry on photosynthesis; also called the *twilight zone*
- epifauna** ..... animals that live *on* the surface of the seabed
- epipelagic zone** ..... upper layer of water extending to depth of 200 meters; in the photic or sunlit zone



- habitat** ..... specific area or type of environment in which an organism is found
- hadalpelagic zone** ..... the depths of the ocean below 6,000 meters in the deep-ocean trenches; in the aphotic or midnight zone
- infauna** ..... animals that live *within* the sediments of the seafloor
- littoral zone** ..... area between the tides; also called the *intertidal zone*
- mesopelagic zone** ..... middle layer of ocean water between 200 and 1,000 meters; in the disphotic or twilight zone
- nekton** ..... free-swimming organisms
- neritic province** ..... waters over the continental shelf; near-shore zone
- oceanic province** ..... waters beyond the continental shelf; open-ocean zone
- pelagic** ..... of or pertaining to the seas or oceans
- photic zone** ..... lighted region of the ocean; area where photosynthesis can occur; also called the *sunlit zone*



- plankton** ..... small, usually microscopic plant or animal organisms that float or drift in the ocean
- province** ..... a particular area or region
- rocky coasts** ..... shores made up of solid rock and usually steeper than sandy beaches
- sessile** ..... organisms that are attached to a surface and cannot move around
- sublittoral zone** ..... benthic area of the continental shelf below the low-tide area; also called *subtidal*
- supralittoral zone** ..... dry area above the high-tide line; sometimes called the *spray* or *splash zone*
- surf zone** ..... the area of crashing waves along a sandy beach
- tide pools** ..... small habitats formed when spaces between rocks retain water at low tide

