

Look Who Lives in the Ocean!

Ocean Zones Science Mural

The word pelagic is derived from Greek *pélagos* meaning "open ocean". Scientists recognize five layers of the ocean, called pelagic zones. The layers/zones are described below—notice that each has more than one correct name. Why do you think animals live at various depths? What adaptations might be required for survival in each layer? Using large-format paper, create a tall mural that shows the pelagic zones and some of the animals they each support.



SUNLIGHT ZONE or **SUNLIT ZONE** also called **Euphotic Zone** or **Epipelagic Zone**

surface-200 meters (660 feet)

The top layer of the ocean receives the most sunlight and has the warmest water, so it is teeming with life and color! Most ocean dwellers are found in this layer, from photosynthesizing plankton to bony fish, reptiles to air-breathing mammals. Coral reefs are in this layer, too.

Animals common to this layer include stingrays, schooling fish, sharks, krill and whales.



TWILIGHT ZONE or **MIDWATER** also called **Disphotic Zone** or **Mesopelagic Zone**

200-600 meters (660-3,300 feet)

This layer receives only a faint amount of sunlight (the water appears dark to the human eye). Here, fishes' eyes are larger and some creatures use bioluminescence. Temperatures drop significantly through the ocean's thermocline and water pressure increases.

Animals you might find in this layer are sea jellies and swordfish.



MIDNIGHT ZONE or **DARK ZONE** also called **Aphotic Zone** or **Bathypelagic Zone**

1000-4000 meters (3,300-13,100 feet)

No light reaches this layer of the ocean, so it remains in virtual blackness. The water pressure is severe (up to 5,850 pounds per square inch) and temperature remains a near-constant 39°F (4°C). Here, creatures' eyes may be small or nonexistent.

Animals you might find in this layer are giant squid, deep sea angler fish or diving sperm whales.

THE ABYSS also called **Abyssopelagic Zone**

4000-6000 meters (13,100-19,700 feet)

This is the pitch-black bottom of the ocean. The floor is covered with a muddy substance made from skeletons and organic decay. Most creatures in this layer either feed on the muck or prey on the animals that do.

Animals you might find in this layer are dumbo octopus, deep sea bamboo coral or tubeworms.



THE TRENCHES also called **Hadalpelagic Zone**

6000-11,000 meters (19,770-36,000 feet)

This is the deepest layer of the ocean, found only in deep sea trenches and canyons. At more than three times deeper than the average sea floor, the pressure in this layer is unimaginable—8 tons per square inch! Life was recently discovered in this layer.

One animal you might find in this layer is a single-celled plankton called foraminifera.