

Envisioning Deep Oceans

Explore Environments—Ocean



CONNECT the depth of the ocean with the amount of sunlight that reaches the water and the marine life that lives there. Illustrate a written journal to tell stories from the sea creatures' point of view. Imagine you are an ocean dweller who lives in each of the three levels of the ocean. Describe what can be seen in the Sunlight Zone, Twilight Zone, and Darkness Zone, where sunlight does not penetrate. Let's dive deep and write about our discoveries.

EXAMPLE OF SUNLIGHT ZONE JOURNAL ENTRY:

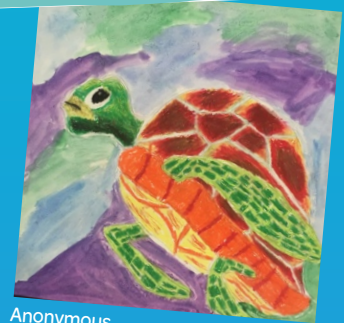


Kedayton C.

AT THE WATER'S EDGE

JUST HATCHED FROM EGGS, WE SCRAMBLE FROM THE SHORE INTO THE WATER. AS THE SUN COMES UP, WE MAKE SHALLOW DIVES LOOKING FOR FOOD.

THE BRIGHT SUNBEAMS PIERCE THE WATER. WE SEE MANY COLORS AND SEA CREATURES IN VARIOUS SHAPES AND SIZES. THERE IS MOTION ALL AROUND AS WE SWIM AND EAT THE DELICIOUS SEAWEED. WHO ARE WE AND WHY DO WE LOVE LIVING IN THE SUNLIGHT ZONE?



Anonymous



RESPOND to information about light in the three ocean zones through the eyes of a sea creature who lives in each zone. Research plants and animals that thrive at the deeper layers, where there are fewer or no light rays and little color.

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Sketch a sea creature who lives in each zone and write a description of what life is like at that depth of the ocean. Provide a name and description for each sketch. Consider words that radiate a sense of optimism and a positive outlook.



Jillian K.



Kyle T.

SUNLIGHT ZONE (Euphotic Zone)

Sea level to 200 meters deep

Fun facts to inform your story: Sunlight rarely penetrates beyond this "top of the ocean" zone. Sea turtles, seals, sea lions, shrimp, and stingrays enjoy the relatively warm water in this zone. Tuna, sharks, mackerel, jellyfish, and other marine animals thrive here, as well as many marine plants.



Josh C.



Kevin F.

TWILIGHT ZONE (Dysphotoc Zone)

200–1,000 meters deep

Cesar A.



Fun facts to inform your story: Sunlight decreases rapidly with increased depth. Photosynthesis is not possible in this zone. Marine life here includes microscopic bacteria, zooplankton, crustaceans, squid, lantern fish, viperfish, mid-water jellyfish, octopuses, worms, and many kinds of gelatinous animals. Some squid and fish can use their bodies to make light.

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(continued)



Matt L.



Ashley C.



Nicole E.

DARKNESS ZONE (Dysphotic Zone)
1,000 meters and deeper

Fun facts to inform your story: No sunlight penetrates this level. This zone is totally dark. Angler fish, giant squids, fangtooth fish, cookiecutter sharks, viperfish, frilled sharks, giant spider crabs, and lanternfish are deep-sea dwellers. The northern wolffish, which prefers the cold deep waters of the North Atlantic, has a unique compound in its blood that acts like antifreeze in icy waters.



PRESENT your illustrations and journal entries as dramatic performances, adjusting your voice to sound like you are an ocean dweller who can speak.