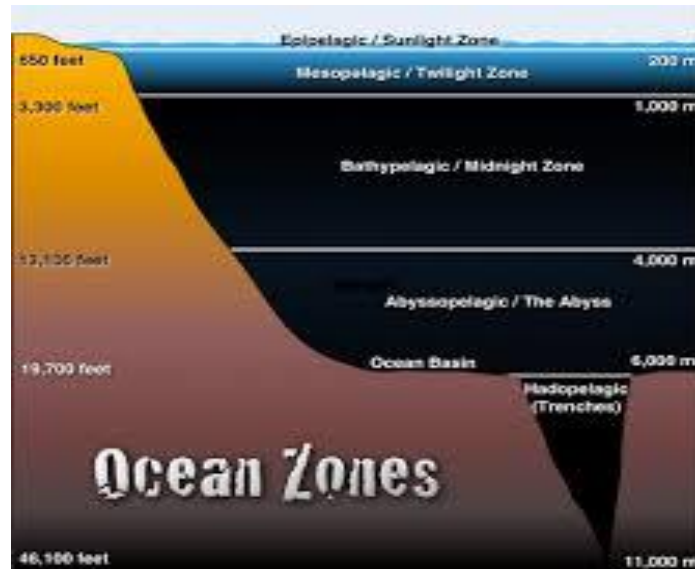


Multilayered ocean dessert cup

The ocean is very large and supports a great diversity of life. Approximately 70 percent of the earth's surface is covered by ocean. Not only is it wide, but it is also very deep, and has multiple layers, each with their own unique set of ecosystems and organisms.



Ingredients:

- crushed Oreos
- chocolate cake
- pudding
- jello
- gummy candies
- whipped cream
- fruits/berries

Ocean zones:

1. Sunlight Zone (whipped cream & berries)
2. Twilight zone (jello & gummies)
3. Midnight zone (pudding)
4. The abyss (chocolate cake)
5. The trenches (crushed Oreos)

Instructions:

- While making the jello and pudding, add 1 drop of blue food dye to the jello and 3 drops to the pudding.
- Add the gummies to the jello while it is still liquid and wait for it to cool
- Mix the berries/fruit into the whipped cream.
- In a clear glass or plastic cup/bowl, place the crushed Oreos first, then the chocolate cake, then the pudding, jello and whipped cream, so it resembles the layers of the ocean.

Learning objectives:

To make it easier to visualize the vastness of the ocean. If you don't live close to the ocean it can be hard to imagine how big and important it is. It can also be hard to understand that there are many levels in the ocean with different environments and organisms. (ocean literacy principles 1&5)

The ocean zones:

1.The trenches

The trenches (The Hadalpelagic zone) are the deepest part of the ocean and is found in the ocean basin and below. The depth of the zone depends on the trenches in the area. It cannot be explored without specialized kits due to its cold temperatures and high pressure. Natural light cannot penetrate it. However, many different creatures can be found in this layer, mostly invertebrates, like starfish, sea cucumbers and jelly fish.

2.The abyss

the Abyss' (The Abyssopelagic zone) name originates from greek and translates to "no bottom." Like the layer below it, temperatures are near freezing point, and there is no natural light. Pressure is also high due to the weight of the water above. Animals like crabs, squids and octopuses live in this environment. Over 75% of the ocean floor can be found in this zone.

3.The midnight zone

The midnight zone (Bathypelagic layer) is found just above the Abyss. Although the Midnight zone is dark, visible light may be observed from sea creatures found here. Many animals in this layer are either black or red due to low sunlight penetration. Some whales, like the sperm whale, spend time in this level in search of food.

4.The twilight zone

Above the midnight zone lies the twilight zone (Mesopelagic layer or midwater zone). This zone is home to some of the strangest sea animals like the swordfish and the wolf eel. Faint sun rays penetrate the layer.

5.The sunlight zone

The sunlight zone (The Epipelagic zone) of the ocean ranges from the surface to the twilight zone. There is plenty of light and heat within this layer, although both decrease as the depth increases. Pressure is also minimal and increases with depth. Most oceanic life and human activities like leisure, fishing, and sea transport occur in this zone. Coral reefs and photosynthesis occurs here.