

Unit Study Guide- Ocean

| Word | v | Definition |
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| Sunlight Zone | | It is in this zone where most visible light exists. With the light comes heat from sun and because of the temperature there is an abundance of life forms. Temperature is the highest of the ocean zones and pressure is the lowest of the ocean zones. |
| Twilight Zone | | Because of the depth, sunlight is very faint. The temperature ranges greatly from the top of the layer to the bottom of the layer because of the distribution of sunlight. Pressure continues to increase as you decrease through the layer. |
| Midnight Zone | | Due to its constant darkness, this zone is called the midnight zone. The only light at this depth (and lower) comes from the bioluminescence of the animals themselves. The temperature continues to decrease and the pressures increases as you descend. |
| Abyss Zone | | It is the pitch-black bottom layer of the ocean. Three-quarters of the area of the deep-ocean floor lies in this zone. The water temperature is constantly near freezing and only a few creatures can be found at these crushing depths. Pressure is extremely high. |
| Trenches Zone | | The deepest zone of the ocean. It is a long, narrow depression on the bottom of the ocean floor. The temperature is constant at just above freezing with pressure at its highest. |
| Mariana Trench | | The Mariana Trench is off the coast of Japan and is the lowest point in the ocean. |
| Bioluminescence | | The production and emission of light by a living organism. |
| Oceanographer | | Scientist who studies the ocean, its structures, and the ocean floor. |
| Marine Biologist | | Scientist who studies the variety of life forms in the ocean. |
| 71% | | Percentage of Earth's surface that is covered in water |
| Sonar | | This emits a sound wave into the water. If an object is in the path of the sound, the sound bounces off the object and returns an "echo" to the sonar transducer. Sonar allows scientists to "view" objects underwater. |
| Submarine | | A watercraft capable of independent operation underwater. |
| Submersible | | An underwater vehicle that is useful in ocean exploration. |

Answer the following questions in complete sentences.

1. How much of the earth's surface is covered in water?
2. Describe the Mariana Trench? Why is it special?
3. Explain differences and similarities between an oceanographer and a marine biologist.
4. Why is bioluminescence a critical part of life in the ocean?
5. Describe how pressure and temperature change as you go deeper in the ocean.
6. Describe what tools scientists use to study the shape of the ocean floor and its features.
7. What distinguishes the sunlight zone from the twilight zone?
8. Describe two differences between midnight zone and the abyss zone.
9. Describe the trenches and tell why they are not the lowest layer for most of the ocean floor.
10. List and describe three ocean floor features.