

Name _____

Oceanic Carbon Captains: The Role of Oceans in the Global Carbon Cycle

Multiple Choice Questions

1. What is the global carbon cycle?

- a) The movement of oxygen through Earth's atmosphere
- b) The exchange of carbon dioxide between Earth and Mars
- c) The flow of carbon in various forms through Earth's systems
- d) The process of converting carbon into diamonds

2. How do oceans contribute to the global carbon cycle?

- a) By releasing carbon dioxide into the atmosphere
- b) By converting carbon into oxygen
- c) By absorbing and storing carbon dioxide from the atmosphere
- d) By preventing the movement of carbon

3. What is carbon sequestration in the context of oceans?

- a) The process of converting carbon into diamonds underwater
- b) The uptake and storage of carbon dioxide by oceans
- c) The transformation of carbon into oxygen in the deep sea
- d) The release of carbon from the ocean into the atmosphere

4. What is the biological pump, and how does it contribute to the ocean's carbon cycle?

- a) It's a mechanical device used to move water in the ocean.
- b) It's a pump that extracts oil from the ocean floor.
- c) It's a process involving the uptake of carbon by phytoplankton and the sinking of organic particles, thus transporting carbon to the ocean depths.
- d) It's a pump used to clean seawater.

5. Why is the role of oceans as a carbon sink crucial in mitigating climate change?

- a) Oceans contribute to global warming by releasing excess carbon dioxide.
- b) Oceans absorb too much carbon, making the atmosphere too cold.
- c) Oceans help balance carbon levels in the atmosphere by absorbing and storing carbon dioxide, preventing excessive warming.
- d) Oceans have no impact on climate change.

