

Name _____

Tiny Heroes of the Sea: The Role of Phytoplankton in Marine Ecosystems and Carbon Cycling

Multiple Choice Questions

1. What are phytoplankton?
 - a) Tiny fish in the ocean
 - b) Single-celled marine plants
 - c) Microscopic sea creatures
 - d) Large marine mammals

2. What is the primary process that phytoplankton perform to produce energy and organic matter?
 - a) Bioluminescence
 - b) Predation
 - c) Photosynthesis
 - d) Camouflage

3. Why are phytoplankton often referred to as the "grass of the sea"?
 - a) They provide habitat for marine animals.
 - b) They can be green in color.
 - c) They perform photosynthesis, similar to land plants.
 - d) They are consumed by herbivorous fish.

4. What role do phytoplankton play in marine food webs?
 - a) They serve as apex predators.
 - b) They are consumers of zooplankton.
 - c) They are primary producers, forming the base of the food chain.
 - d) They have no role in marine food webs.

5. How do phytoplankton contribute to global carbon cycling?
 - a) By emitting carbon dioxide into the atmosphere
 - b) By converting carbon dioxide into oxygen
 - c) By sequestering carbon in the deep ocean
 - d) By releasing methane into the atmosphere

