

Topic/Objectives: 7-1 Photosynthesis in the Ocean; (1) Identify the reactants and products of photosynthesis and note the source of the reactants in the ocean. (2) Describe how carbon is cycled through Earth's spheres. (3) Analyze chlorophyll imagery, looking for evidence of blooms of phytoplankton that contribute to the food sources of marine animals.

Name:

Date:

Period:

Essential Question: How does the process of photosynthesis provide for most life in the ocean?

Questions:

Notes:

Energy in many organisms is stored as chemical energy by converting ADP (adenosine diphosphate) into _____ (_____ _____).

- _____ use a variety of metabolic pathways to process energy.
- Most organisms use _____ and _____ to process energy.

Many organisms use sunlight to drive the process of _____.

- In photosynthesis, plants, algae, and other autotrophs use _____ to capture the energy in sunlight.
- This energy is used to build _____.
- The source of carbon for building carbohydrates is _____; oxygen is released as a by-product.

Organisms must break down the carbohydrates within their cells for energy through _____.

- This is whether an organism makes its own carbohydrates (_____) or gets carbohydrates by eating other organisms (_____).
- Respiration uses _____ and produces carbon dioxide and water as by-products.

When these autotrophs make more energy than they can use, the excess net increase in organic matter is called _____.

- Organisms responsible for this primary production are called primary _____.
- _____ organisms are a major source of worldwide primary production.

Earth's systems include _____ that influence life and climate on our planet.

Earth's _____, _____, biosphere, atmosphere, and hydrosphere are defined by their functions.

_____ consists of all of the living (or once-living) things and the non-living things they interact with.

The _____ consists of all the gases that surround our planet.

