



LEARNING GOAL SCALE

SINGLE SCHOOL CULTURE © for ACADEMICS



School: ROYAL PALM BEACH HIGH SCHOOL
Team: AICE Marine Science

Date: _____ INB Page: _____
Unit: 3-Energetics of Marine Ecosystems

Learning Goal	
Students will understand how organisms utilize either photosynthesis or chemosynthesis in order to capture energy that will flow along food chains and be able to calculate both productivity and efficiency of energy transfer within an ecosystem.	
4.0	Students should be able to use the knowledge and understanding gained in this section in new situations, or to solve related problems.
TARGET 3.0	Students will understand how organisms utilize either photosynthesis or chemosynthesis in order to capture energy that will flow along food chains and be able to calculate both productivity and efficiency of energy transfer within an ecosystem.
2.0	<p>Students will understand the following terminology: photosynthesis, chemosynthesis, productivity, respiration, wastage, efficiency, trophic levels, pyramid of energy, pyramid of numbers, pyramid of biomass</p> <p>Students can:</p> <ul style="list-style-type: none"> • Explain that photosynthesis captures the energy of sunlight and makes the energy available to the food chain • Explain that chemosynthesis captures the energy of dissolved minerals, and that chemosynthetic bacteria at hydrothermal vents make energy available to the food chain • Explain the meaning of the term <i>productivity</i>, and how high productivity may influence the food chain • Calculate and explain the energy losses along food chains due to respiration and wastage • Represent food chains as pyramids of energy, numbers and biomass • Use the knowledge and understanding gained in this section in new situations, or to solve related problems
1.0	With help, partial success at score 2.0 and 3.0 content.
0.0	Even with help, no success.