

APES Chapter 3 Test Review Items

Fish and the Forest: Ways the bears are selective? 4 nutrients being recycled?
How does the nutrient express work against the Law of Gravity?

Abiotic and Biotic factors interact in ecosystems. Define and Give examples of each:

Photosynthesis: What are the reactants and the products of this reaction?

Cellular Respiration: What are the reactants and the products of this reaction?

Energy from the Sun? What becomes of it? What % is captured by green plants/algae?
Describe energy efficiency in terms of the 10% Rule.

Be able to identify the various trophic levels (producers/consumers and decomposers) in a food web. Trace the flow of energy, and the cycling of matter.

For each nutrient (N, C, P, S): name sinks, organic molecules, human influences, problems.

N cycle: list/describe each step:

N Fixation, Nitrification, Assimilation, Ammonification, Denitrification

The role of bacteria in N cycle? Root nodules? Aerobic conditions? Anaerobic conditions?

GPP and NPP: define, describe the relationship between them. Differences?

Role of Respiration? Factors that can increase rate of GPP?

Role of detritivores in detritus-based food web? What are they eating? What eats them?

What is the importance of using watersheds to define ecosystem boundaries?

Clear-cutting deforestation has what impact on watersheds, according to studies being conducted at Hubbard Brook Long Term Ecological Research station?

What is the Intermediate Disturbance Hypothesis, and what does it have to say about biodiversity in an ecosystem?

Examples of disturbances...Natural and Man-made?

Importance of: Resistance? Resilience? Restoration ecology?

Value and Ecosystems: Instrumental values and Intrinsic values? Give examples.
What are provisions?