

Environmental Science - Chapter 2

Section 1 – Energy Flow in Ecosystems

producer	consumer	herbivore
carnivore	omnivore	scavenger
decomposer	food chain	food web
energy	pyramid	photosynthesis

- How does energy first enter most ecosystems?
- What are the three primary energy roles in an ecosystems?
- What are producers? How do they make food (energy) for themselves & others?
- What are the four types of consumers? How do they obtain food?
- What is the role of decomposers in an environment? Name several decomposers.
- What is a food chain? What is a food web? Identify energy roles in a food web (producer, 1st level consumer, ...).
- What does a food pyramid show us about the flow of energy through an ecosystem? How much energy passes from one level of the food chain to the next?

Section 2 - Cycles of Matter

water cycle	evaporation	condensation
precipitation	nitrogen fixation	legumes
bacteria	nodules	(free) nitrogen
oxygen	carbon dioxide (CO ₂)	matter

- What happens to matter in the ecosystem? What happens to energy?
- What are the three main processes of the water cycle? Describe what happens to water during each process.
- Describe the carbon-oxygen cycle (don't forget the carbon!)
- Describe the nitrogen cycle. What is the role of bacteria in the nitrogen cycle?
- What are legumes and what is their significance to the nitrogen fixation process?
- What are the two primary components of air? What percentage of air do these elements represent?

Section 3 - Biogeography

biogeography	physical barriers	continental drift
competition	dispersal	climate
native species	weather	exotic species

- What is biogeography?
- What are three ways that dispersal of organisms can occur?
- Identify some ways that organisms can be dispersed by other living things?
- What are native and exotic (nonnative) species?
- What are some problems posed by exotic species?
- What three factors limit dispersal? How do these factors affect where species are found?

Section 5 - Succession

succession	disturbance	pioneer species
secondary succession	primary succession	lichen

- What is primary succession?
- What is a pioneer species? Name two types of pioneer organisms.
- What is a lichen?
- What is secondary succession?
- Identify several natural and human disturbances that result in secondary succession.