

Name: _____ Period: _____ Date: _____

Ecology Notes

Directions: Use your textbook, pages 480-511, to complete the "Cloze" notes below.

Levels of Organization of the Earth – Everything is Connected

Section 1: Pages 480-483

Ecology is the study of the _____ of _____ with one another and the _____.

BIOSPHERE

The part of Earth where _____ exists. It includes the _____ parts of the _____ to _____ in the atmosphere. It includes both biotic and _____ parts of the environment.

ECOSYSTEMS

All the _____ and _____ parts of the environment and how they _____ to each other.

COMMUNITIES

All the populations of _____ in an ecosystem.

POPULATION

All the organisms of one _____ in a particular ecosystem.

SPECIES (page 166-167)

The same kind of _____ so much alike that they can _____ and _____ with each other and produce _____ offspring. Each species must have a particular _____ in which to live.

ABIOTIC FACTORS

List FOUR important **abiotic** parts of the environment:

Section 2: Living Things Need Energy: (pages 484-489)

ENERGY

1. The **ENERGY** that fuels all the activities on Earth comes from the _____.
2. Organisms are divided into groups depending on how they get _____.
Organisms that can make their own food are called _____. They can make food using the process called _____ (energy from the sun), or by using _____ (energy from chemicals.) All other organisms must get their food by eating a _____ or another _____. These are called _____. There are 3 kinds: if an organism only eats plants it is a _____, a _____ eats only animals, and an _____ eats both plants and animals.
3. Other important members of an ecosystem are _____. What is the job of these organisms?

4. What is a food chain?

5. What is a food web?

6. Which is more like what actually happens in an ecosystem, a food chain or a food web?

7. What is an energy pyramid?

8. How was the balance in the ecosystem disrupted by the disappearance of the gray wolf?

Types of Interactions (pages 490-496)

1. Everything in an ecosystem affects _____.
2. _____ are any resources that are in limited supply and can limit the size of a population. What are some limiting factors in an ecosystem?
3. What is carrying capacity?
4. What happens to organisms in an ecosystem when they exceed the carrying capacity for that area?

Competition:

5. Populations in an area are affected by _____ for limited resources. _____, water, _____, _____ and _____ must be shared and can limit the size of certain populations.
6. Competition can be _____ populations or _____ populations.

Predators and Prey:

7. Animals are always looking for food and resources. A _____ is an animal that hunts another for food. An example is a _____. The _____ is the animal being hunted. Predators help to limit the size of populations and keep ecosystems in balance.
8. Predators and prey have adaptations to allow them to survive. Explain the following adaptations and give an example of each:

ADAPTATION

EXAMPLE

Warning coloration

Camouflage

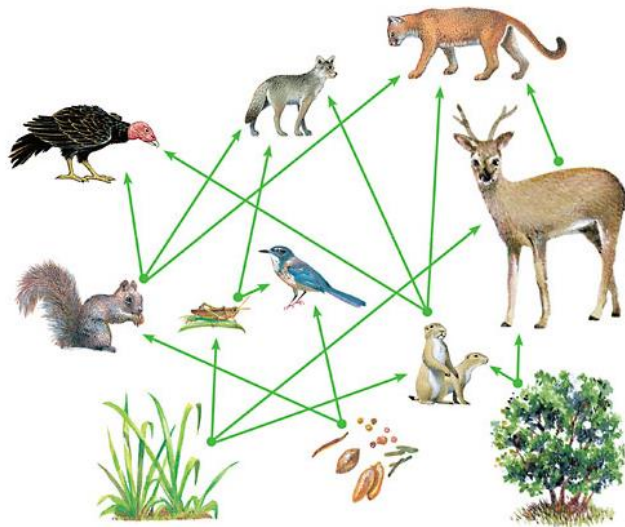
Defensive chemicals

FOOD/ENERGY PYRAMID

Draw a Food/Energy Pyramid:

Food = _____, some _____, some _____
Only _____ of energy is carried to next step. Energy is _____ or _____ at each level or lost as _____. Huge numbers of _____ needed at bottom to support even _____ animal at the top! Most energy and mass is at the _____ level. Loss of any level has a _____ effect on the other levels.

FOOD WEB



Food webs are much more _____ than food _____ and the loss of one organism in a food _____ has _____ effect on the rest of the ecosystem.