Chapter 2 Test Study Guide

**DEFINE:**

- **Abiotic factors:** environmental factors in an ecosystem that are nonliving
  
  **Examples of abiotic factors:** light, temperature, soil, climate

- **Chemosynthesis:** production of food from chemicals

- **Photosynthesis:** light energy becomes chemical energy

- **Respiration:** process that uses oxygen in plants, algae, & animals

- **Carnivore:** eats consumers

- **Food web:** a model of feeding relationships

- **Biotic factors:** living factors of an ecosystem
  
  **Examples of biotic factors:** trees, animals, bacteria

- **Omnivore:** consumers that eat both plants & animals

- **Energy pyramid:** a diagram that shows the amount of energy that moves from one feeding level to another in a food web
Condensation - step in the water cycle where water vapor becomes liquid water.

Evaporation - process in which molecules of liquid water absorb energy and change into a gas.

Nodule - the bumps on the roots of certain plants that fix nitrogen.

Climate - the typical weather pattern in an area over a long period of time.

Producer - an organism that can make its own food; the first organism in a food chain; release oxygen as a result of photosynthesis.

Scavenger - organisms that feed on the bodies of dead organisms.

Decomposers - organisms that help recycle once-living matter by breaking it down into simple, energy-rich substances.

Herbivore - organisms that eat only plants.

Carnivore - organisms that eat only animals.

Humus - biotic factor found in soil.

Carbon cycle - describes how carbon molecules move between the living and nonliving world.

Currents - motion of air causes currents.

The air is composed of what elements?

78% Nitrogen, 21% Oxygen, 0.94% Argon, 0.03% Carbon Dioxide, and trace amounts of other gases.
What is the main ingredient in cell fluids? Water

What is the relationship between elevation and temperature?
As elevation increases temperature decreases

Circle the correct answer.
The level of an energy pyramid with the most available energy is

- Third-level consumers
- Second-level consumers
- First-level consumers **Producer-level**

Below, use these words to fill in the blanks.

- **Proteins**
- **Plants**
- **Sunlight**
- **Fixed**
- **DNA**
- **Animals**

Nitrogen in the air is not able to be used by most organisms until after it is fixed.

Nitrogen in the soil is used by plants and animals.

The source of energy for most life on Earth is Sunlight.

Nitrogen is important to living things because nitrogen is a necessary ingredient for proteins and DNA.
Use the word bank below to fill in each step on the nitrogen cycle.

- Animal wastes and dead animals
- Decomposers
- Nitrogen fixation
- Plants
- Bacteria
- Atmospheric nitrogen
- Nitrogen compounds
- Dead plants