

ECOLOGY LAB 1

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Background Information

- Environment is the physical, chemical and biological factors surrounding of an organism at any given time.
- Ecology the total relationships between the organisms and the environment.
- Ecosystem is a community made up of living organisms and nonliving components such as air, water, and mineral soil.

Environment can be divided into two groups:

- 1- **Biotic** can be described as any living component that affects another organism, or shapes the ecosystem.
 - a) **Producers**, otherwise known as autotrophs, convert energy (through the process of photosynthesis) into food.
 - b) **Consumers**, otherwise known as heterotrophs, depend upon producers (and occasionally other consumers) for food.
 - c) **Decomposers**, otherwise known as detritivores, break down chemicals from producers and consumers (usually antibiotic) into simpler form which can be reused.

Environment can be divided into two groups:

2- **Abiotic** are non-living chemical and physical parts of the environment that affect living organisms and the functioning of ecosystems. abiotic factors can include water, light, radiation, temperature, humidity, atmosphere, and soil.



Ecosystem



Abiotic Factors

- Sunlight
- Temperature
- Precipitation
- Water or moisture
- Soil

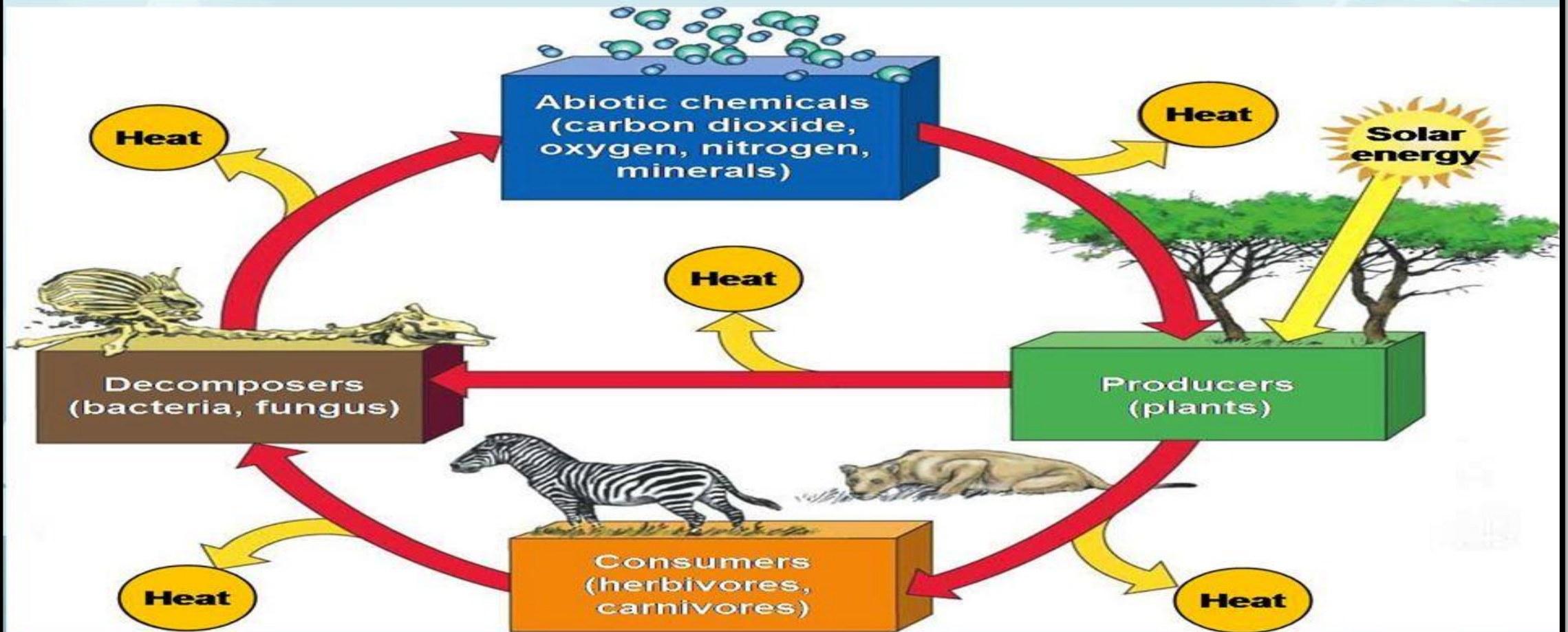
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Biotic Factors

- Primary producers
- Herbivores
- Carnivores
- Omnivores
- Detritivores

Abiotic and Biotic Interactions



Environmental factor

Environmental factor or ecological factor or eco factor is any factor, abiotic or biotic, that influences living organisms.

1- **Abiotic Factors include:**

- a. **Physical factors:**(light, Temperature, humidity, rainfall, Dew, Evaporation, Water flow, wind and atmospheric pressure).
- b. **Chemical factors:**(pH, Electrical conductivity, Salinity, Radioactive element, availability of nutrients and heavy metals).