

# Ecosystems



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# Ecosystems

- An ecosystem is all of the living organisms that share a region and interact with each other and their non-living environment



With the person next to you, list all the living and non-living things in this ecosystem – see a close-up on the next slide







# Examples of Ecosystems

Forests



Swamps

Coral Reefs



# Ecosystems

- Are made of both organic (living or once living) and nonorganic/ non-living/never living components (wind, rocks, etc.)
- The organic components are called Biotic factors
- The nonorganic components are called Abiotic factors



# Think

- Lets think about a park. On this slide write down at least 5 biotic and abiotic factors you would find in a park

**Biotic Factors**

**Abiotic Factors**

# Abiotic/Biotic

- Label the following as either a Biotic/Abiotic or factor

1. Algae →

2. Dirt →

3. The Sun →

4. Grass →

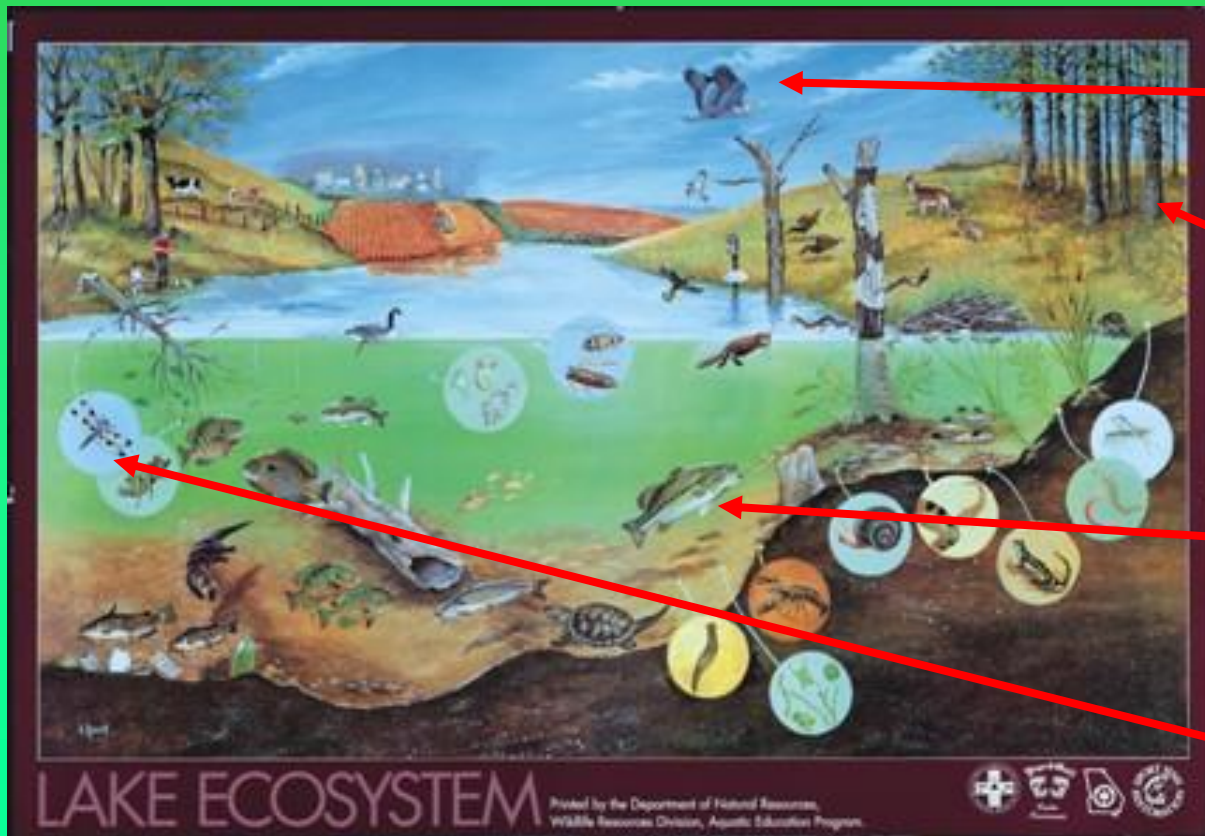
5. Pollen →

6. Wind →



# Ecosystems

- Individual organisms from many species share an ecosystem (e.g. A Lake)



Bird

Tree

Fish

Bug



# Population

- Together, all of the individuals of a single species in a particular area make a population

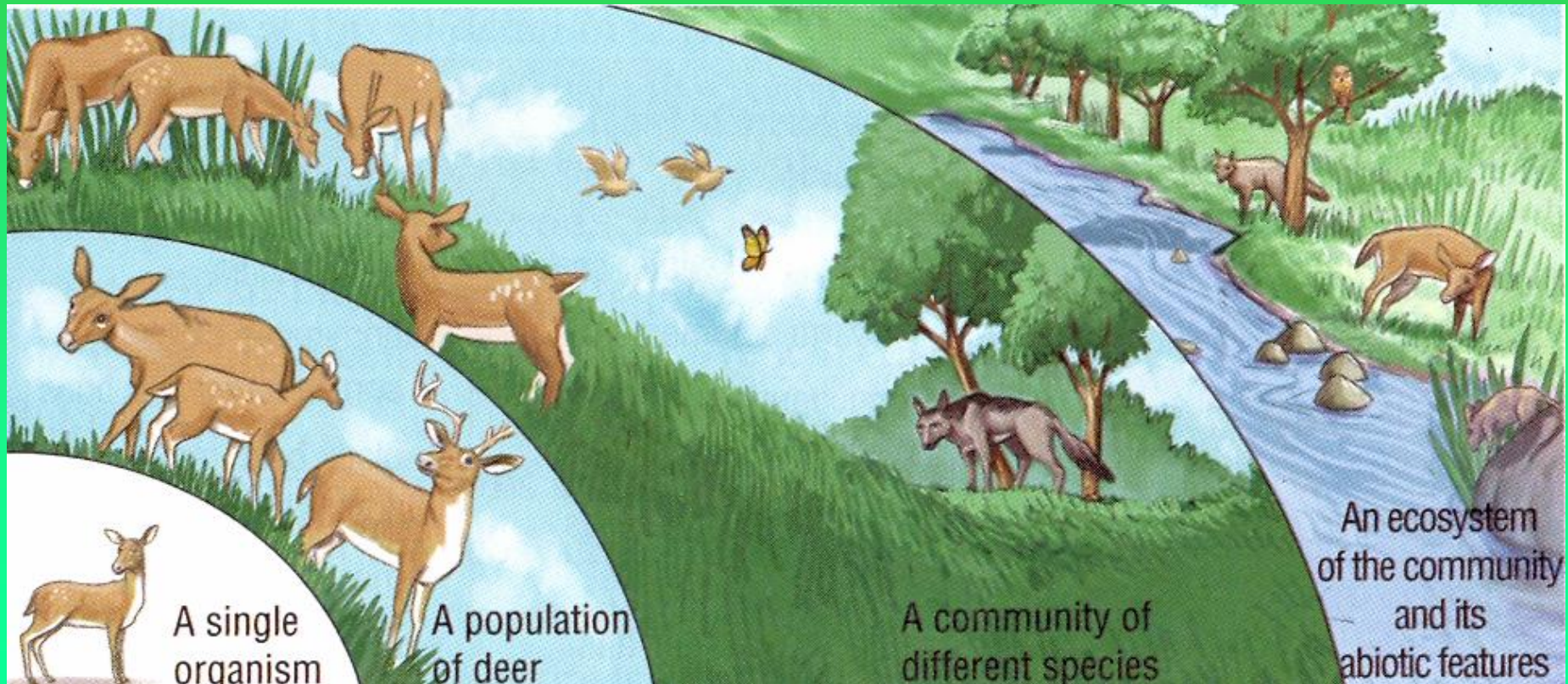


# Community

- Individuals from all of the populations form the community
- An ecosystem is a term given to the community and its interactions with the abiotic environment



# Organisms, Populations, Communities and Ecosystems



# Describing Ecosystems

- Ecosystems can be described by a specific set of biotic and abiotic features
  - The organisms that live there
  - Temperature Range
  - Precipitation (rain/snow fall)





# Sustainability

- **The ability to maintain an ecological balance**
- Most ecosystems are sustainable. This means that they maintain a relatively constant set of characteristics over a long period of time.
  - E.g. temperature, precipitation, animal/plant life, etc.

# Sustainability

- Human actions however often disrupt the biotic and abiotic factors of an ecosystem



Pollution



Cutting down trees



Building Cities



# Sustainability

- The actions of humans can make a previously sustainable ecosystem, unsustainable e.g. oil spills greatly disrupt the previously stable ecosystem



# Ecosystems

- **Most ecosystems are naturally created (without human help)**
- Other ecosystems are created and maintained by humans (e.g. parks, farms, etc.)
  - These types of ecosystems are usually NOT sustainable as they require constant management
  - Think about what would happen if you left a farm for 3 years and came back, would it look the same? What would be different?



What is an Ecosystem?