

SC 4.5 Virginia Ecosystems

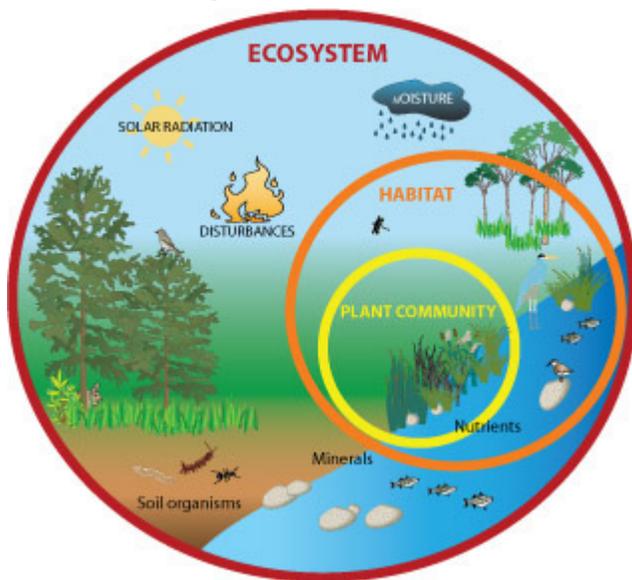
Essential Questions:

- What is an ecosystem?
- What are behavioral and structural adaptations?
- How are communities of living things organized?
- What are a food web, a habitat, a niche, and a life cycle?
- What are some habitats in Virginia?

Ecosystems include all living and non-living things

*plants and animals are living

* sunlight, minerals, soil, water, and oxygen are non-living



Populations are groups of ONE type of organism.

Communities are made up of all the interrelated niches (all the living things in an ecosystem).

Habitat is an organism's surroundings, the non-living things in an ecosystem (or its home.)

- Provides food, water, shelter, space to live

Food chains show a direct flow of energy in an ecosystem.

Food webs show all the possible food chains in an ecosystem.

ALL plants and animals are **interconnected** in an ecosystem!

* **Solar energy** from the sun powers the food web.

* **Producers** are plants

* **Consumers** get energy from other living things

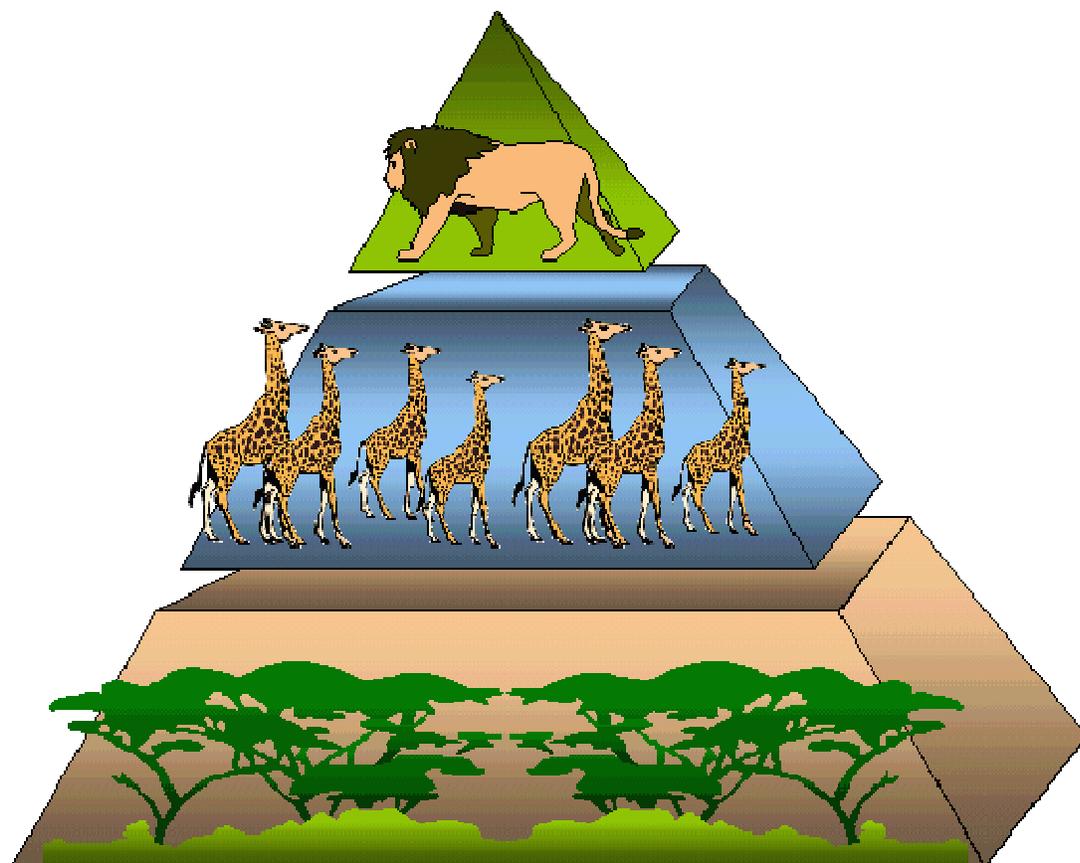
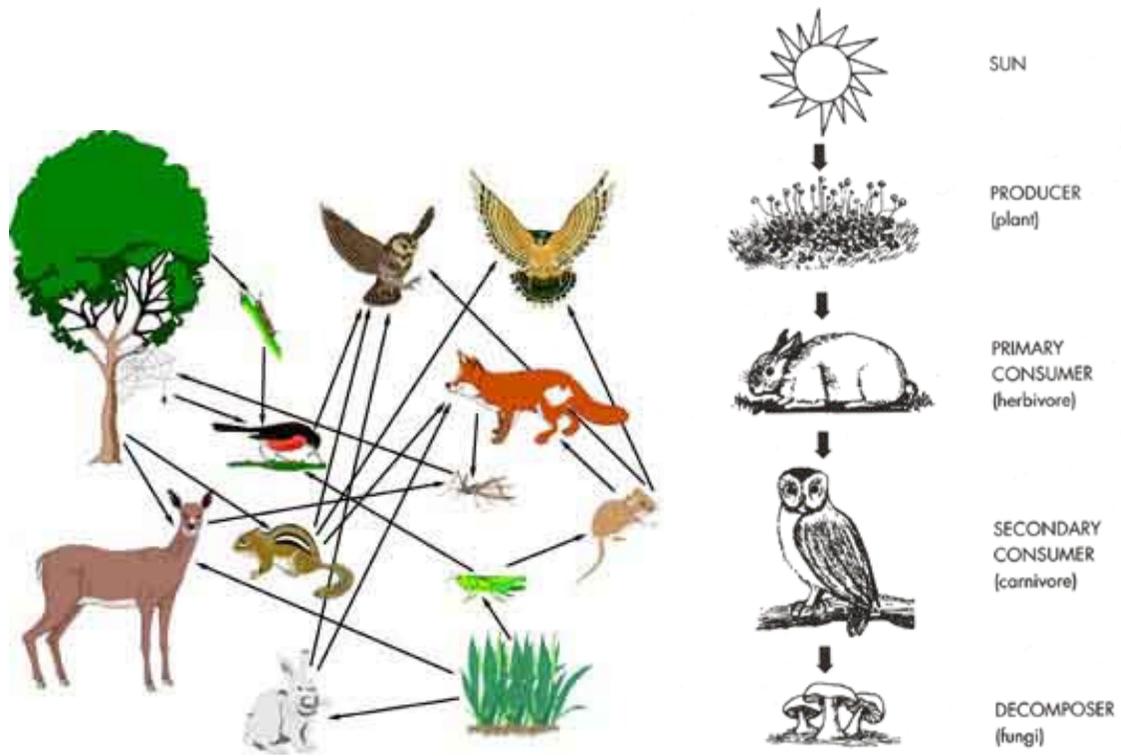
-3 types= *Herbivores (eat plants,)* *Carnivores (eat meat,)*
and Omnivores (eat both.)

-Primary Consumers eat plants

-Secondary Consumers eat herbivores

-Tertiary Consumers eat other carnivores

* **Decomposers** get energy from decaying (dead) plant and animal matter.



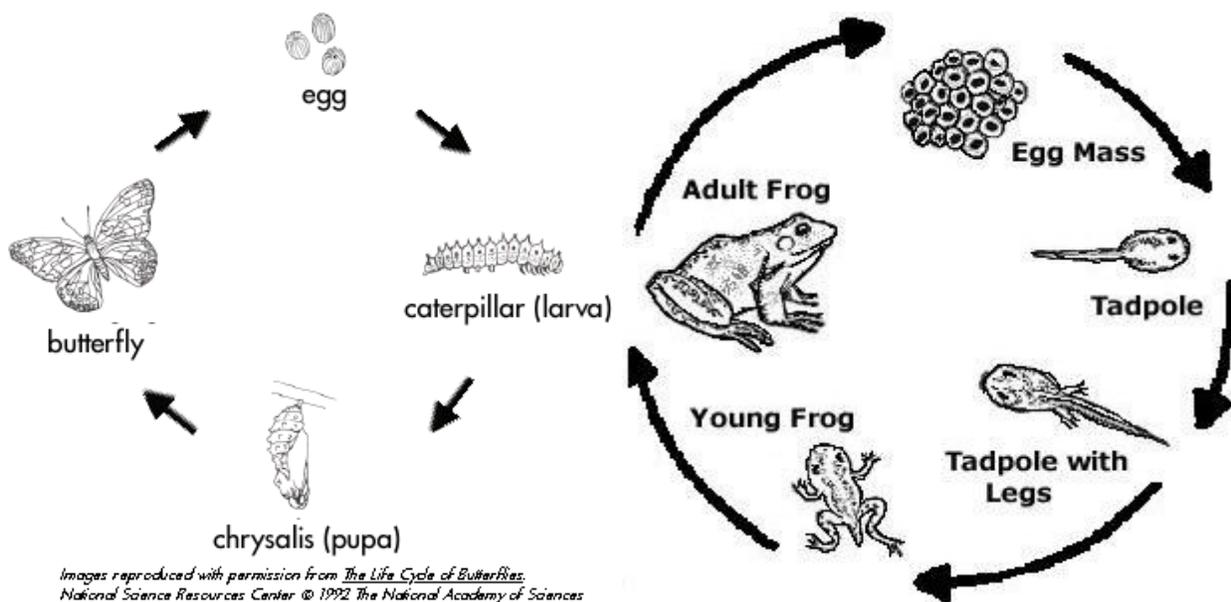
Plants and animals **adapt** or change to their environment.

Structural Adaptations are body parts that help an organism survive.

Ex. Mimicry, camouflage, sharp claws, thick skin or coat

Behavioral Adaptations are what an organism **DOES** to survive.

Ex. Hibernation, migration (moving,) or nocturnal hunting or protective behaviors



Niche is an organism's role in a food web. (what it **DOES** and **NEEDS**.)

*an organism's niche changes at each stage of its life cycle.

Humans Impact the ecosystem. They have **negative** effects by polluting habitats, destroying habitats, and using up natural resources.

They have **positive** impacts by conserving resources and using appropriate waste disposal.