



Plants on Earth





Plants are a part of Earth's Ecosystems!

In 3rd Grade, our goal is to understand how plants survive in their environments.



Plants are living organisms
on Earth.



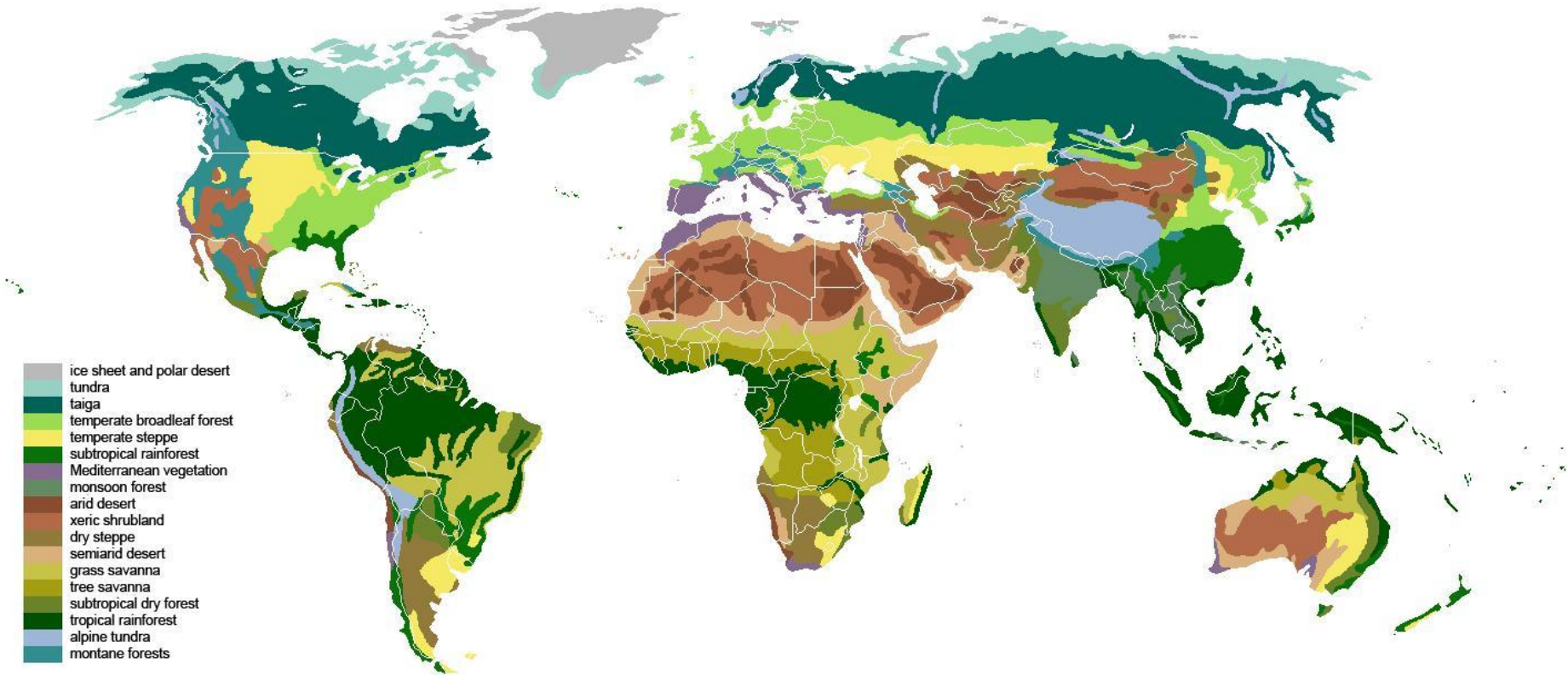
Living Things

- All living things grow and change.
- All living things need food, water, and air to live.



Plants are living organisms!

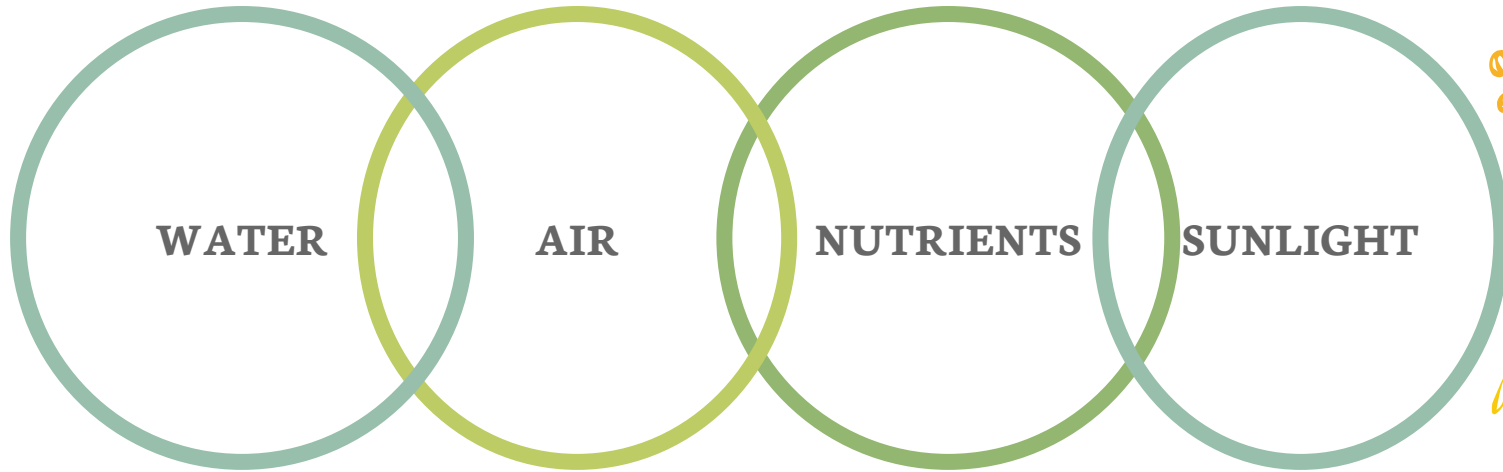




Plants are a part of Earth's different ecosystems. You can find them in deserts, forests, and even in the arctic!



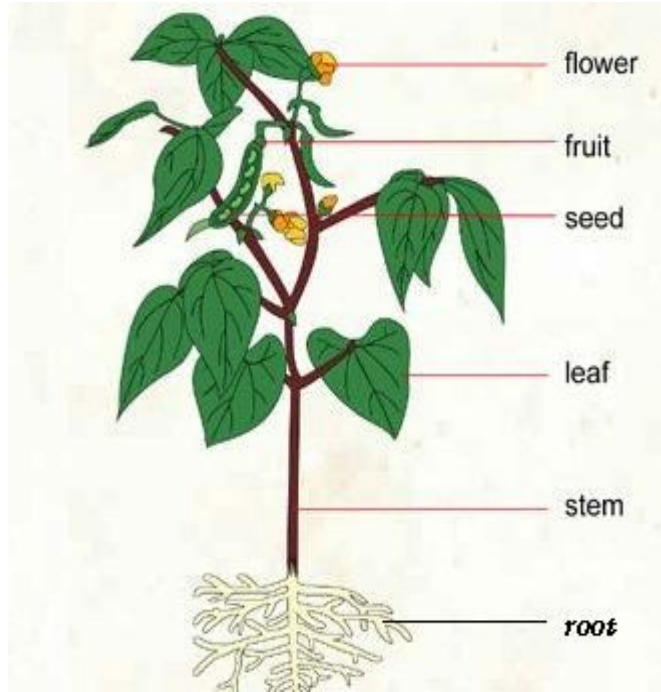
Plants have needs in order to live and grow!



Plants depend on their environmental conditions (water, sunlight, space, air) for growth and survival.



Plants have structures.

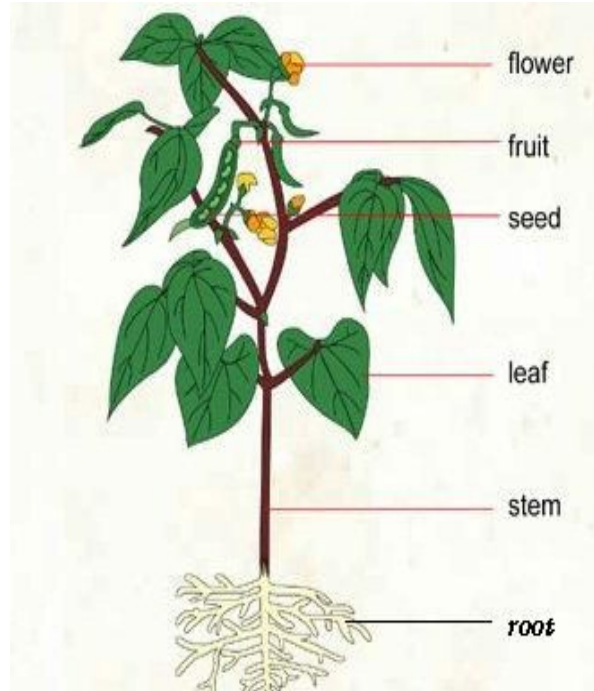


Each part of the plant is needed for growth and survival.



Plant structures have functions.

- **Flowers** – attract pollinators and produce seeds for reproduction
- **Leaves** – synthesize food
- **Stems** – provide support
- **Roots** – absorb nutrients



Each plant part has a role that is needed for plant growth and survival.



Plants are living organisms on Earth.

Plants are part of Earth's ecosystems.

Plants have needs, structures, and functions that are necessary for growth and survival.

Plants depend on their environmental conditions (water, sunlight, space, air) for growth and survival.

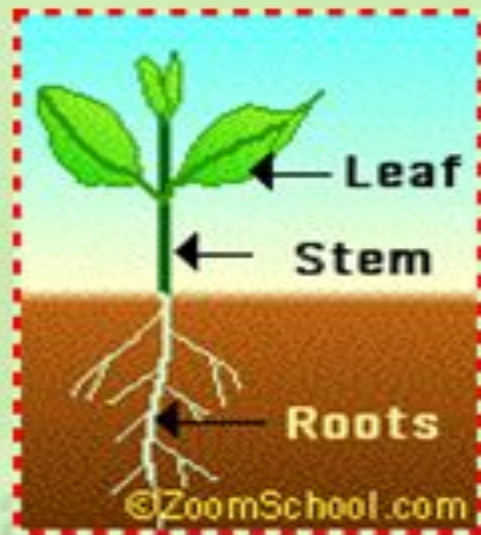


Plant structures perform
necessary functions for
survival.



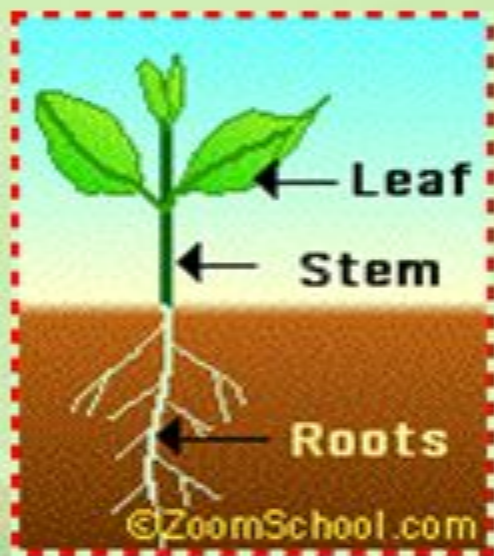
Parts of a Plant

- **Roots** hold the plant in the soil and takes in water and nutrients from the soil.



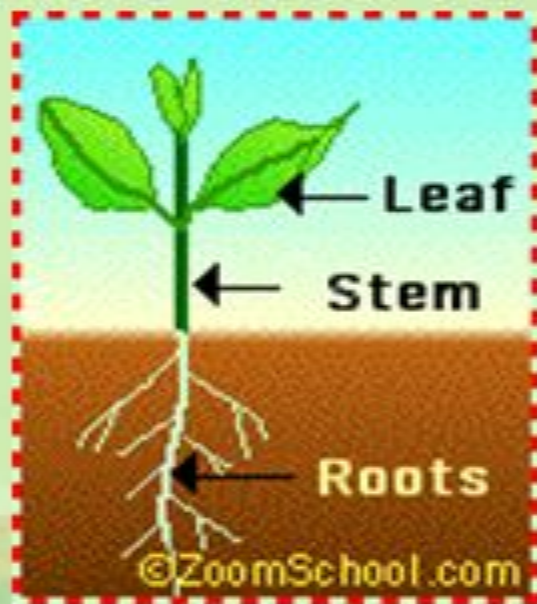
Parts of a Plant

- The **stem** holds up the plant and moves water and nutrients through it.



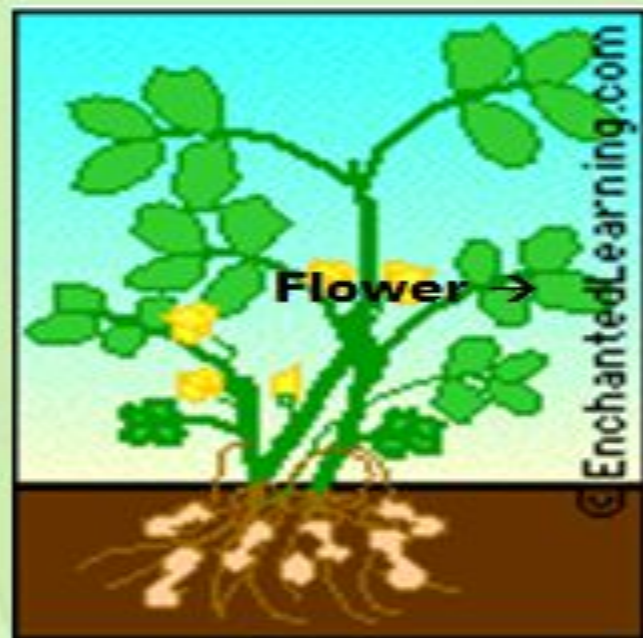
Parts of a Plant

- **Leaves** use light, air, water, and nutrients to make food for the plant.



Parts of a Plant

- **Flowers** make fruits that hold seeds.



Seeds

- Seeds are formed in the center part of the flower or fruit.
- Seeds come in many shapes and sizes.
- Plants grow from seeds.



Flowers attract pollinators and
produce seeds for reproduction.



Plant flowers attract pollinators and produce seeds for reproduction.

Pollinate

to give (a plant) pollen from another plant of the same kind so that seeds will be produced

Pollination is required for plants to produce seeds.

Honeybees are a common *pollinator* of flowers.

Produce

to make or create (something) by a natural process

The tree *produces* good fruit.

Honey is *produced* by bees.

Plant Reproduction

the process that produces new plants



Plant structures perform necessary functions for survival.

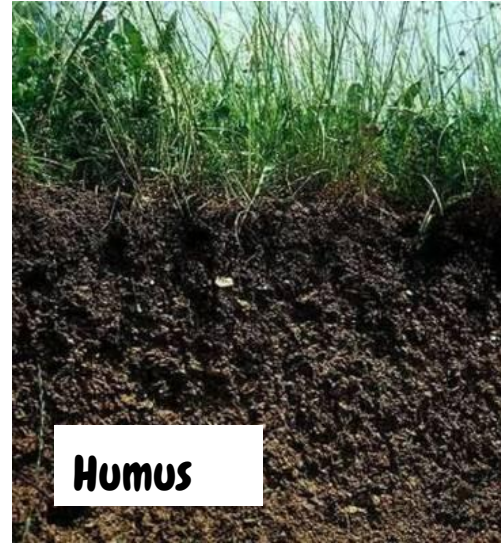
- + **Plant roots** absorb nutrients (and water) from soil.
- + **Plant leaves** synthesize (produce) food.
- + **Plant flowers** attract pollinators and produce seeds for reproduction.
- + **Stems** provide support for plants.



Many plants need soil for growth and survival.



Soil comes many colors.



Basic Properties of Soil

Texture

(How does the soil feel? Is the soil sticky, rough, soft?)



Capacity to Hold Water

(How easily does water moves through the soil?)



Nutrient Content

(Does the soil have many nutrients?)



Types of Soil

1. Clay
2. Sandy soil
3. Humus



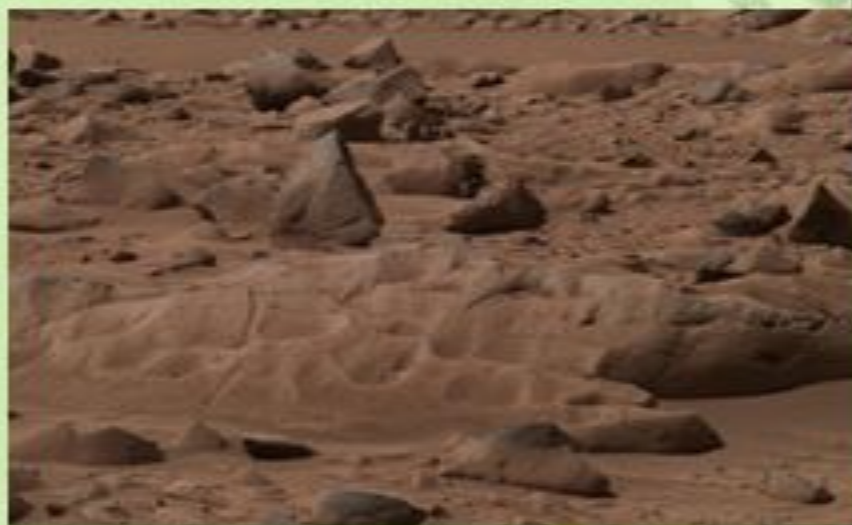
Clay

- Clay is smooth when dry and sticky when wet. Soils high in clay content are called heavy soils. Clay also can hold a lot of nutrients, but doesn't let air and water through it well.



Sandy Soil

- When you rub sand, it feels rough. This is because it has sharp edges. Sand doesn't hold many nutrients.



Humus

- a brown or black material in soil that is formed when plants and animals decay



Many plants need soil for growth and survival.

- ✦ Soil is made of sand, clay, and humus.
- ✦ Soil has basic properties such as texture, capacity to hold water, and nutrient content.



Did you know?

A **cycle** is a set of events or action that happen again and again in the same order



Seed plants have a particular life cycle.





The life of a plant begins as a **seed**.



Germinate means that the plant begins to grow.



Seeds germinate and produce **seedlings**.





If a seedling's needs are met it will grow into an **adult plant**.





An adult plant produces seeds.





Seeds are scattered and the
plant life cycle begins again.



How Seeds Are Scattered

- Planting
- Animals
- Water
- Wind



How a Seed Grows into a New Plant

- The life of a plant begins as a seed.
- Once you plant and water a seed it begins to germinate.
- The root pushes through the seed coat.
- The seedling grows out of the ground.
- The stem and its leaves point to the sunlight.
- The leaves make its own food.
- Flowers begin to bloom and make seeds.
- New seeds are formed and scattered.

What is this process called?



Life Cycle of a Plant





How do plants survive in their environments? (3.L.1, 3.L.2.2)

- **How does the structure of plants support their function? (3.L.2.1)**
- **How does soil impact the growth and development of plants?(3.L.2.4)**
- **How would you describe the life cycle of a seed plant? (3.L.2.3)**