

For Creative Minds

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Basic Needs of Plants



Air



Water



Nutrients



Sunlight

Plants need food to grow. Unlike animals, plants make their own food through a process called **photosynthesis**! In order to do this, they need four things: air, water, nutrients and sunlight.

Plants use their leaves to take in carbon dioxide from the air. Making food takes a lot of energy! Plants use the energy from sunlight to create their sugary food from water and carbon dioxide in the air.

Plants absorb nutrients and water from the soil. Different types of plants live in different types of soil. Soils can be fine or coarse. Some types of soils hold more water than others. Plants can live in salt water or fresh water. Some plants need a lot of water to grow, but other plants may only need a little water.

Different plants grow in different climates. Each plant needs the weather and temperature of their own climates to help them survive.

Match the Habitats



Match the habitat to its location on the map.

1. This habitat has a cold climate.
2. Sandy soil and strong winds make this salty habitat a difficult place for plants to grow.
3. High above sea-level, the air in this habitat is thin and the surface is rocky and steep.
4. This wet habitat has little solid ground in which to plant roots.
5. Crowded trees in this habitat block most of the sunlight from plants on the ground.
6. This hot climate has very little water.



Answers: 1-A, 2-E, 3-B, 4-D, 5-F, 6-C

Plant Parts

Just like animals, plants have many different parts. These different parts help the plant to grow, live, and reproduce.

Like all living things, plants need to reproduce. **Flowers** hold spores that can join together to create seeds that will grow into new plants. These spores are carried by the wind or by pollinating insects and animals, like bees. Some flowers produce **fruits**. Fruits have seeds that can grow into full plants.

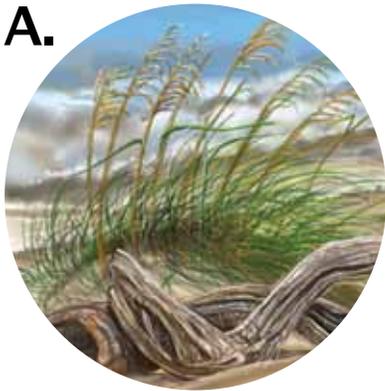


Plants absorb energy from sunlight through their **leaves**. Leaves are usually green and are often thin and flat, with as much surface area as possible exposed to the sun.

The **stem** (or **trunk** on larger, woody plants) supports the weight of the plant and holds the flowers and leaves up off the ground.

A plant absorbs water and nutrients through its **roots**. The roots are usually below the ground and anchor the plant in place so it doesn't fall over or blow away.

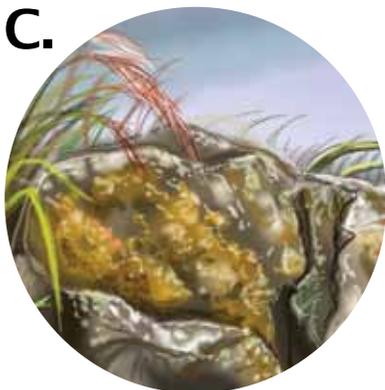
Match the Plant



sea oats



water lillies



lichen

1. This **desert** plant has thick, waxy skin that helps the plant retain water. Spiny needles protect the plant against animals trying to get to the water inside.
2. Most plants on the **tundra** do not grow very tall. They stay low to the ground to avoid the icy wind. Many arctic plants have shallow roots because the frozen earth is too hard to dig into. This plant-like fungus uses its shallow roots to attach to rocks.
3. Plants in the **rainforest** live in a hot, wet habitat. This rainforest tree has thin, smooth bark and large ridges. These adaptations make it easy for air and water to enter and leave the tree.
4. This **wetland** plant doesn't need land to grow. Its roots absorb nutrients from the water. Thick, flat leaves help it float and provide shade for fish and other animals below.
5. Plants on the **beach** adapt to a salty, sandy environment with strong winds. This beach plant has long, deep roots that hold on tight to the loose soil. The tall blades of grass are flexible, so they can bend in heavy winds.
6. The rocky face of the **mountain** is a good home for this tree. The bark is thick and scaly, and the needle-like leaves stay on all year round.



cactus



pine tree



kapok tree