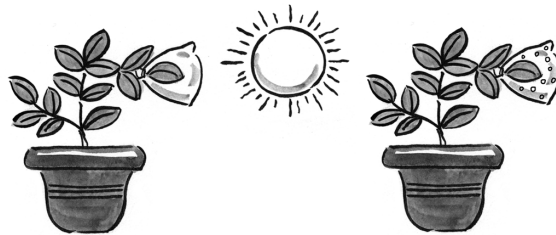




Getting to the root of plants

Background knowledge

The roots of plants perform two main functions. First, they anchor the plant to the ground. Second, they absorb water and minerals dissolved in water from the soil. Plants use the water to make food. The water also provides the plant with support. Plants that lack water become very limp and their stems cannot support their leaves. Water is transported from the roots to the rest of the plant through special vessels in the plant. When the water reaches the leaves, some of it evaporates into the air.



Science activity

Marie placed a plastic bag over a plant. The next day, she noticed water droplets on the inside of the bag. Note down why this happened next to the picture of the plant below.

Marie decided to move the plant into a larger pot. She pulled the plant out of the soil leaving some roots behind, and placed it in a new pot of soil. She watered the plant. After a few days, she noticed that it had begun to wilt and its leaves had begun to drop off. Explain this observation.

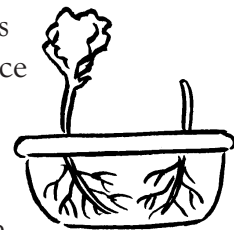
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Science investigation

! Take extra care - ask an adult to supervise you.

Take two stalks of celery with or without roots. Remove the leaves from one stalk. Prepare red colored water using food coloring. Place both stalks in the water for 3–4 days. Record your observations each day. On the last day, ask an adult to help you slice through one of the stalks about 3 cm from the bottom. How far has the colored water traveled up the stalks? Is there a difference? Explain.





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Marie may have damaged the roots of the plant.....

Plants need roots to obtain water. Without water.....

they cannot carry out their life activities.....

Therefore, the plant began to die. It wilted and.....

its leaves began to fall off.....



Science investigation

❗ Half of the stalk will turn one color and the other half will turn the other color. The colored water moves up through the celery's vessels. When a piece of the stalk is cut, small colored dots appear, showing the location of the vessels.

