Thirsty plants

A fun outdoor activity that is great for science plant topics, illustrating how plants absorb and take up water. It also visually and physically explains what happens to plants when they no longer have access to water and helps to explain what healthy plants need and why.

Plan the activity for a dry warm day if possible as there is the potential to get very wet! It is best carried out on a playground where you can draw the plant on the tarmac with chalk.

Although the activity is written around working with a small class team - it is easy to include more children to make a larger plant.

Curriculum Links:
Science: Plants

KS1 Identify and describe the basic structure of a variety of common flowering plants, including trees

Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

KS2 Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant

Investigate the way in which water is transported within plants

Grow to school is a not for profit community interest company that partners with schools enabling them to deliver curriculum-led outdoor learning, food growing & cooking and eating sessions in an efficient and sustainable way.

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GROW inside outside

Activity Sheet 13 – Thirsty plants

You will need: Small containers for water – e.g. yogurt pots for roots, margarine containers for stems, sponges for leaves, watering can, chalk

Draw a large plant including stem, roots and leaves on the playground. It must be big enough for at least two children to stand on the roots, two on the stem and two on the leaves.

1. Two children stand on the roots and have yogurt pots, two stand on the stem and have margarine containers and two on the leaves hold the sponges.

2. Using a watering can fill up the root's yogurt pots. Explain this is watering the plant.

3. The root's then carry the water to the stem – they pour the water into the slightly bigger container.

4. The stem pours to the next stem container and the water is transported up to the leaves.

5. The leaves absorb the water using the sponge. They have to wring out the sponge to make room for more water – this is evaporation. They can then fill the sponge again.

Remember to sit down if your container or sponge is empty.

6. If any containers or sponges are empty of water, the children sit down. This is the plant wilting because it has not been watered.

7. Try and keep the whole plant watered. What happens if you stop watering the plant? How long does it take the for the leaves to wilt?