





Learning Scientific Skills Outside the Classroom

Scientific Skills

Observing	Identifying and classifying Specific skill – comparing flowers	Recording
Country of Origin	Suggested Age Range	Suggested Theme
 UK	4 – 5	Plants
Location outside the classroom		Benefits of using this location
School grounds		There are lots of different flowers growing that the children can observe
Learning Objectives – Scientific Skills		Learning Objectives – Knowledge
To make careful observations of flowers in their local environment To make comparisons between different flowers To record their observations in a drawing		To identify parts of a plant – leaf, stem, flower, petal To know that flowers are not all the same
Key Vocabulary		
Scientific skills vocabulary – observe, see, compare, comparing, same, different, record, recording Knowledge vocabulary – plant, stem, leaf, flower, petal, roots		
Resources / Equipment		
<ul style="list-style-type: none"> • Equipment to make observations – magnifying glasses, flowering plants • Equipment to record observations – clipboards, flowering plants, paper, pencils, pastels 		
Teaching Activities		
<p>Explain – They are going to go outside and observe the flowers and plants that are growing in the school grounds. Explain that a flower is part of a plant. Many plants produce flowers but some plants, like ferns and mosses, do not. There are different parts to a plant.</p>		
	<p>Demonstrate - Using a flowering plant in the school grounds, identify and show children the stem, the leaves, the flower and the petals of the plant. Include the root of the plant by explaining that this part of the plant is in the soil so we cannot see it but it anchors the plant in the ground and takes up water and food/nutrients.</p>	
	<p>Activity – Children walk around the school with an adult looking at the different plants and flowers they can see growing there. As they are walking around, the adult should encourage a discussion about the flowers they observe in the school grounds and assess whether children can correctly identify the different parts of a plant.</p>	
	<p>Discuss – Did you see any plants that produce flowers? What colour were the flowers? Were all the flowers the same?</p>	
<p>Explain – They are now going to look closely at the flowers on a plant. All flowers have petals. They are going to use magnifying glasses so that they can observe the flowers in more detail and look closely at the petals on different flowers.</p>		



Observe – Children use magnifying glasses to make careful observations of flowers. Can they count the number of petals a flower has? What colour are the petals? What shape are they? What do they feel like?

Explain – Flowers don't all look the same. They are going to look closely at the flowers of two different plants and think about what is the same and what is different.

Compare – Show children two different plants which have contrasting flowers. Children make careful observations of the flowers using magnifying glasses and make comparisons. Encourage children to think about the size, colour, shape, number of petals, texture and smell.



Discuss – What was the same? What was different?

Explain – They are going to draw one of the flowering plants they have seen growing in the school grounds using pencils and pastels. They are going to do this outside using a clipboard to lean on so they can observe the flower as they are drawing.

Demonstrate – Show the children how to use look closely at the flowering plant and use their observations to help them draw the flower. e.g. I have counted five petals on my flowers so my drawing needs to have five petals. I need to draw a stem to support my flower.

Record – Children record their observations of a flower in an observational drawing.

Examples of children's work and teacher comments from country of origin

The children loved this lesson and really enjoyed looking at and comparing the different flowers. Going outside and looking first-hand at the plants and flowers also enabled us to assess clearly who understood the different parts of a plant and who could make careful observations of a flower.

This lesson also covers the following Early Learning Goals:

PS&E: Managing Feelings and Behaviour - ELG - They work as part of a group or class and understand and follow the rules.

Physical Development: Moving and Handling – ELG - They handle equipment and tools effectively, including pencils for writing.

Mathematics: SS&M – ELG - They explore characteristics of everyday objects.

UTW: The world – ELG - Children know about similarities and differences in relation to living things.

UTW: The world – ELG - They make observations of plants.

EA&D: Being Imaginative – 40-60 - Create simple representations of objects. Chooses particular colours to use for a purpose.