



UPPER Key Stage 2 - SCIENCE

Lesson title – *The same but different*

Time of year – all year, but most flowers are in bloom in Spring and summer

Curriculum topic – Living things and their habitats

Focus of learning objectives

Classification

Curriculum objectives

Describe how plants are classified into broad groups according to common observable characteristics and based on similarities and differences.

Key vocabulary

Classification, characteristics, habitats, kingdoms, classification key

Additional Curriculum links

Art and Design

Resources required

What we will provide:

What you should bring: Writing and drawing materials, clip boards.

- Writing and drawing materials

Preparation required

- Read the **Self-led Teaching Resource – Introduction to the Kitchen Garden**

Other relevant information

Introduction to activities

15 minutes

Plant kingdom

Introduce the concept of classification. There are 3 different kingdoms present in the Kitchen Garden: animals, plants and fungi. Where do humans belong?

- Go for a walk in the Kitchen Gardens and look for an example of each of the other kingdoms?

Discuss how most of the plants in the Kitchen Garden are flowering plants from the classification of plantae. (The other 3 groups are mosses and liverworts, ferns and horsetails, and conifers.) Plants are:



- Multicellular organisms
- Non-motile (do not move from place to place)
- Contain chlorophyll (they make food through photosynthesis)
- Have cell walls that contain cellulose

Activities in the Kitchen Garden

90 minutes

Activity 1 Classification and sorting

- Gather some leaves and sort them into different groups.
- How many groups can you sort them into? Colour, simple or complex, leaf shape, leaf edge etc.
- Play leaf snap with your leaves.

Activity 2 Classification keys: gathering data

Discuss how keys can be used to group different things and classify them.

- Go for a walk and find some different plants and note down the different characteristics of plants and some of the similarities. Ask the same questions for all the plants and concentrate on the same characteristics for each plant. e.g.
 - Is the plant a fruit or vegetable?
 - Which part of the plant is edible? – leaf, seed, fruit/seeds or tuber/roots.
 - Is the plant a tree / annual / perennial / something else?
 - Colour of the edible part of plant?
 - Size of plant? Under 10cm 10-20cm, under 1m, 1-2m over 2m

Activity 3 Developing a classification key

- Draw a key using the information gathered from each of the questions asked.
- Can you use the key to help identify plants in the garden?
- Get someone to choose a plant and follow your key. Refine as required.

Extension Activity

20 minutes

Modes of seed dispersal

- Choose one of the fruit, vegetables and make an accurate botanical drawing of it showing all the characteristics identified in the key.

Health and Wellbeing focus

20 minutes

- Go on a sensory walk and look for things which you can taste, smell, hear and see.
- Together develop a wellbeing scale for things that you find in the gardens e.g. from 1-5 (No impact to very happy) to classify how they make you feel.
- Compare findings with the group.

Food growing focus

15 minutes

- Think about which parts of the plant that you can eat. Together discuss how you can use different parts of the plants for example to make a salad e.g. leaves, stems, flowers and seeds.
- Ask the learning team in advance what you can pick to taste on the day of your visit.

Extension activity at school

- Develop your key using IT and photographs taken in the Kitchen Garden.