

## Plant Discovery Day KS2

**Key Subjects:** Science

**Venue:** Waltham Abbey Gardens, Waterworks Centre

**Programme Length:** 4 hours (including ½ hour break for lunch)

### SESSION AIM

To introduce students to common plants and their importance to people and animals through a series of hands on activities and games. Looking at identification, classification, plant parts, habitat requirements, food chains, seed dispersal and life cycles (including pollination and seed formation).

### ACTIVITIES

Welcome and introduction to the programme

- ❖ Introduction to the diversity of plants, and their importance to people and animals
- ❖ Safety talk- including safety sack contents and appropriate behaviour
- ❖ Distribution of equipment (project booklet, clipboard and pencil)

Morning session activities:

- ❖ Plant parts and the parts humans eat (looking at real examples of fruit and vegetables and their seeds)
- ❖ Food chain challenge
- ❖ Plant diversity – (making a piece of natural art from different plants)
- ❖ The name game – an introduction to classification
- ❖ Plant classification challenge

Afternoon session activities:

- ❖ Photosynthesis recipe
- ❖ Pollination game
- ❖ Plant reproductive parts
- ❖ Plant dispersal game

**SAFETY** All activities and sites are risk assessed. All Lee Valley Regional Park teaching staff carry mobile phones and first aid kits. Groups should follow their ratio guidelines. We provide a copy of our safety rules for teachers to discuss with students prior to visit. Further H&S information is available at [visitleevalley.org.uk/education](http://visitleevalley.org.uk/education)

**CLOTHING AND BAGS** Appropriate outdoor clothing e.g. waterproofs, suitable footwear, sun cream and hat. It is recommended that hands free bags are brought for lunch etc.

**RESOURCES** All required resources and equipment are provided.

**BEHAVIOUR** Teachers are responsible for good behaviour throughout their visit including lunchtime supervision.

### LEARNING OUTCOMES

*Most children will be able to:*

- ❖ Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.
- ❖ State which parts of a plant are eaten by humans.
- ❖ Construct and interpret a food chain, identifying producers, predators and prey.
- ❖ Describe ways in which plants are different and demonstrate use of a classification key to help group, identify and name a variety of plants in the local environment.
- ❖ State a plants needs of life and be aware of the idea that plants make their own food.
- ❖ Name the process by which plants make food as photosynthesis.
- ❖ Explain the part flowers play in the life cycle of flowering plants including pollination, seed formation and dispersal.
- ❖ Demonstrate the use of classification keys to identify some plants in the immediate area.
- ❖ Name the process by which plants spread their seeds as dispersal and name four different methods of seed dispersal.

**ASSESSMENT** Open-ended questioning, ongoing peer discussion, sharing experiences, completion of project booklets and plenary

**WASTE AND RECYCLING**  
Please see our website regarding lunch waste and recycling policies.

**POST VISIT** Pupils can send their trip inspired letters, poems, pictures and environmental pledges to [youthandschools@leevalleypark.org.uk](mailto:youthandschools@leevalleypark.org.uk)  
A selection will be displayed online at [visitleevalley.org.uk/education](http://visitleevalley.org.uk/education)

## IDEAS FOR PREPARATION WORK

Discussion on the following points:

- 1) **Plant parts and a plants needs of life**
- 2) **Terminology for plant reproductive parts**

### Male parts

**Stamen** which consists of the:

**Anther** contains pollen grains

**Filament** holds the anther up

### Female parts

**Carpel** which consists of the:

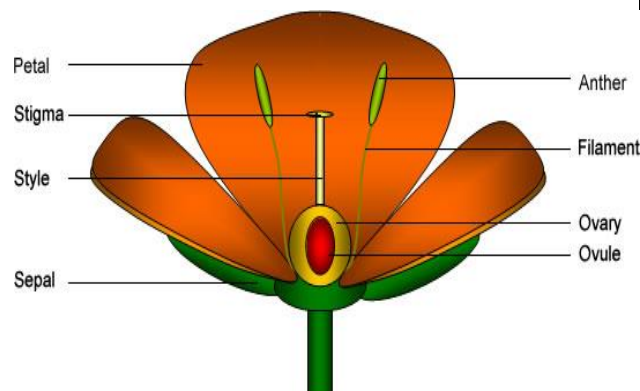
**Ovary** contains the eggs

**Stigma** is sticky to catch pollen

**Style** holds the stigma up

**Petal**: attracts insects to the flowers

**Sepal**: protects the flower when in bud



## IDEAS FOR FOLLOW- UP WORK

Referring back to the information from the visit, the children could:

### Play 'Classification consequences' game

This adaptation of the classic game 'consequences' is designed to get students thinking about how plants are classified. It is explained that the children are going to design a plant and it must be as exciting as possible with lots of adaptations which will help it survive (for example it might have leaves with killer spikes, giant shimmering flowers that attract insects from miles around, etc.). Children split into groups the first child in each group draws the part of plant that is underground (the roots/ bulb) then folds over the piece of paper with only a tiny bit of their drawing showing for the next person to start working on the stem and so on up the plant. Finally the full plant is revealed and the group must give it a two part name (an English version to the two part Latin name devised by Linnaeus) and present it to the rest of the group.

### Grow your own plant to link seed to supper

The children plant a seed using an empty packet as a pot, growing the appropriate food plant in that packet to reinforce the connection between plants and common food products. For example the children could try growing a potato plant in an empty crisp packet or wheat in an empty cereal packet.

### The 'power of plants' classroom display

The children could research the many different uses of plants, for example in food, medicine, materials for building and clothing, plastics etc. They could produce a poster or classroom display to illustrate their findings which will help them to understand the importance of the relationship between people and plants.

### Create a dispersal collage

Different groups could each focus on a different method described below:

**Wind** - light seeds which may have wings such as a sycamore or dandelion

**Water** – plants which grow close to the waters' edge may use the water itself to disperse their seeds such as yellow iris or alder

**Animal** – seeds which are prickly stick on to animal's fur and 'hitch' a lift before falling off later such as burdock or cleavers. Animals also eat fruit and pass the seeds out in their droppings such as strawberry or horse chestnut

**Explosion** – seeds in pods may be dispersed by a small explosion. As the pod dries out it contracts, producing tension. When this tension reaches a certain breaking point, the pod snaps and the seed is flung out such as Lupin (which is poisonous) or Himalayan balsam

To book or discuss this programme please contact the Youth and Schools Service on

03000 030 618 or email [youthandschools@leevalleypark.org.uk](mailto:youthandschools@leevalleypark.org.uk)

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