



Plants and pollination



KEY



Location



Resources



Equipment



Instructions

Curriculum Links

Science: **Working scientifically** – Observation, identification.

Plants – Identify and describe the functions of parts of plants, explore the role of parts of plants in the life cycle.

Living things and their habitats – Life processes of reproduction in plants.

Learning Objectives

To understand the importance of pollination in the wider environment.

Introduction

There are three linked activities to carry out in this pack, all of which can be done during a walk around a site with flowering plants and trees. This pack is best used in spring.

The pack is suitable for use with a maximum of 30 participants divided into up to 5 groups.

- Instructions showing how to use the activities.
- Materials and equipment for 5 groups and their leaders.

KEYSTAGE

2 Activities

● Spring spotters

● Attracting Pollinators

● Parts of a Flower

● Pollination Tag

Using the Site

Please begin your visit with a talk about using the site.

Wildlife sites are home to many mammals, plants and insects and you'll meet some of them on your visit, please treat them with respect. Sometimes special zones are set aside for wildlife to retreat to when the site is busy with people so please don't use such areas on your visit. The site may have lots of human visitors who come to enjoy the wildlife please keep it looking good. When you have completed an activity, please try to put everything back as you found it, e.g. turn any dead wood you have looked underneath back over or scatter the leaves you picked discretely.

If there are any ponds and wet areas in the site you are using, make sure you know where those areas are and check that participants are supervised.

Checklist

Resources for group leaders:

- Spring Spotters instructions
- Pollination Spotters instructions

Resources and equipment for participants:

- Pencils
- Clipboards
- Cotton balls
- Bee boppers wings or butterfly masks
- Spring Spotters worksheet
- Parts of a Flower worksheet
- Attracting Pollinators worksheet

Spring Spotters



Anywhere



Spring Spotters worksheet



The first activity, Spring Spotters is intended to get participants thinking about changes that occur in spring. Birds and animals are becoming more active, birds may be making nests. There are more insects around such as butterflies, caterpillars and bees. Plants and trees are also becoming more active with new green leaves and are beginning to flower. Ask participants to tick things that they see, and if they see anything particularly interesting that they would like to share with the group, to remember the place where they saw it. Finish this activity with a show and tell.

Parts of a Flower



Anywhere with flowering plants



Clipboards, pencils



As an introduction to the next activity on pollination, begin with a discussion on why plants are important to us:

- Food: almost everything we eat comes from plants, either because we eat the plant itself, or the animals that we eat eat plants;
- Wood and fibre: What your clothes made of? What is your furniture made of?
- Air cleaning: they produce oxygen for us to breathe and take carbon dioxide and other things that make the air less clean for us to breathe out.
- Habitats: they are homes to other organisms.

Move the discussion on to flowers and the role that they have for plants. Why do plants need flowers? Plants need flowers to produce seed, which allows them to spread to new places and grow new plants, so it's important that we don't pick the flowers we find, but leave them on the plant. Have a look at the flowers you find. See if the participants can label the parts of the flower on the work sheet and identify them on a real flower.

Attracting Pollinators



Anywhere with flowering plants



Clipboards, pencils



Plants have a challenge to get the pollen from the flower to a flower on another plant and there are two main ways that plants do this. Plants that flower early in the year when there aren't many insects around spread pollen on the wind (including many trees such as conifers, hazels, willows and birches). Plants that flower later rely on pollinating insects that visit the flower to collect sweet liquid called nectar. Flowers that use these different ways look different. Flowers that use the wind produce lots of pollen and have an open shape that allows the wind to shake the pollen off. Flowers that want to attract insects are brightly coloured and may have patterns to guide the insect in. Some are smell interesting to attract insects.

Next we take a closer look at flowers with the attracting pollinators sheet. Give participants time to take a close look at the flowers they find (without picking them) and record any that they see. Finish off with a show and tell session.

Pollination Tag



Anywhere with flowering plants



Cotton balls, bee boppers wings or butterfly masks



This game requires some preparation. Pupils need to prepare a sheet of paper with their favourite fruit drawn on one side, and a flower drawn on the other. Put some double sided tape in the centre of the flower, and use this to attach one or more cotton balls signifying pollen (they can colour the cotton balls if they like so that there is a variety of colours). You will also need three sets of props to signify pollinator insects (such as bee boppers, wings, or butterfly masks). When you have everything ready, 3 participants are chosen as pollinators and the remaining participants hold their flowers with the pollen facing out. The pollinators try to tag the flowers. When a flower is tagged, they give the pollinator some pollen. If the pollinator already has some pollen, they give some to the flower. When a flower has replaced all the pollen it is pollinated and sits down with the picture of the fruit facing out. The game is complete when all the flowers have changed into fruit.