

OVERVIEW

Students learn about the amazing power of flowers to attract their pollinators including some discoveries that have been made by scientists at Cambridge University Botanic Garden. Activities can be used together to form a lesson, as stand alone activities or to support a visit.

INTRODUCTION - PPT

Use the presentation to introduce or recap the role of flowers and pollinators and to learn about the different ways that flowers attract and communicate to their potential pollinators. PowerPoint slides can be hidden/unhidden to ensure the content is appropriate for your students.

ACTIVITY 1 - FLOWER PATTERN WORKSHEET

Students use what they have learnt to create their own flower patterns to attract bees using the flower pattern worksheet. Alternatively students could create their own multi-media patterned flower out of art materials.

ACTIVITY 2 - PARTS OF A FLOWER WORKSHEET

Challenge your students to name all the parts of a flower using the worksheet, there are three different levels available. If possible give each student a real flower to pull apart/dissect to find all the parts they're naming in real life too.

ACTIVITY 3 - PLANT LIFECYCLE WORKSHEET

A quick activity to recap the lifecycle of a flowering plant and where pollination fits in.

ACTIVITY 4 - FLOWER POWER STORYBOARD

Students can compete the flower power storyboard, either by reading the text themselves or by listening to it being read out. Advise students not to take too long on each drawing and not to worry if they can't fit everything in - its just a snapshot!

ACTIVITY 5 - FLOWER POWER TRANSLATION

Finish by asking students to bring all their knowledge together by creating a sign to place next to some flowers translating for humans what the flower is saying to prospective pollinators. Students can use the Flower Power translation worksheet as it is or as a scaffold to help draft their sign.

VOCABULARY

solitary bee bumble bee honey bee nectar
pollen nectar guide iridescence flower petal
ultra violet mauve violet blue pollination prism light
wavelength

CURRICULUM LINKS

Sc2/2.1 Living things and their habitat, Sc3/2.1 Plants

LEARNING OBJECTIVES

- to understand the role flowers play in attracting pollinators and in the plant lifecycle
- to appreciate the different ways in which flowers are communicating to potential pollinators
- to consider the importance of bees and other pollinators and what we can do to help them

RESOURCES

- Introduction presentation and videos
- Supporting information for presentation
- Flower Pattern worksheet
- Flower Power storyboard worksheet
- Flower Power parts of a flower worksheet
- Flower Power plant lifecycle worksheet
- Flower Power translation worksheet

ADDITIONAL OPTIONAL MATERIALS

- Compact disc, Peacock feather to show iridescence, prism.
- Art and craft materials: pens, crayons, pencils, sparkle pens invisible ink...
- Flowers to pull apart/dissect

DIFFERENTIATION

- There are two versions of the storyboard, one with text and a blank version to be used if the text is read out.
- There are three different levels of the flower parts worksheet available.

EXTENSION ACTIVITIES

- Have a go at dissecting a flower to find all the different parts - you could even stick them onto sticky back plastic to make a flower-parts window hanging.
- Take a walk around your school grounds or locally to spot and record different pollinators and their flower preferences.
- Use your results to create different graphs.
- Create a poster about flower power and bee vision.
- Grow your own bee friendly flowers.
- Make your own mini flower press: <http://bitly.ws/9eAf>
- Use sunprint paper to capture different flower and nature shapes using ultraviolet light from the sun.
- Have a go at splitting a beam of white light into a rainbow of colours using prisms or mirrors and water.

LINKS AND FURTHER INFORMATION

We'd love to hear from you! If you have questions or comments, or would like to book a visit to the Botanic Garden please get in touch: education@botanic.cam.ac.uk

<https://www.botanic.cam.ac.uk/the-garden/gardens-plantings/bee-borders-2/>

<https://www.saps.org.uk/primary>