

OVERVIEW

Students learn about a number of different plant adaptations and how these link to the habitats in which they grow, using photos and information of plants growing at the Botanic Garden. Activities can be used together to form a lesson, as stand alone activities or to support a visit.

INTRODUCTION - PPT

Introduce the idea of adaptation and show examples of plant adaptations to different habitats. Get students to imagine what conditions might be like in each habitat and link this to what the plants may need to be able to survive.

ACTIVITY 1 - CARD SORT

Working in groups or pairs, ask students to read the information and sort the plants into the habitats they think they grow in based on their adaptations. Habitat options are 'rainforest, mountain or desert'.

ACTIVITY 2 - DESIGN YOUR OWN PLANT

Using their imagination and the adaptations they have learnt about so far for inspiration, ask students design their own plant suitable for the habitat detailed at the top of the sheet. Alternatively students could model their plant out of playdough.

ACTIVITY 3 - FILL IN THE BLANKS

Fill in the blanks to complete the statements about plant adaptations and habitats. There are three levels of difficulty available.

VOCABULARY

aarid humid hairy climber
drip-tip snow spines epiphyte cacti waxy
succulent sunlight anti-freeze waterproof
tough defence fibrous compact competition
exposed habitat adaptations

CURRICULUM LINKS

Sc2/2.1 Living things and their habitat, Sc3/2.1 Plants
Ge1/1.1 Locational knowledge Ge2/1.3a Human and Physical Geography

LEARNING OBJECTIVES

- to understand what is meant by 'adaptation'
- to appreciate that different plants are suited to different environments
- to link plant adaptations to the environmental conditions in which they grow
- to compare and contrast plants suited to different habitats

RESOURCES

- Introduction presentation
- Amazing Adaptations card sort
- Amazing Adaptations design your own plant student scaffold sheet
- Amazing Adaptations fill in the blanks student sheet

ADDITIONAL MATERIALS

- Pens, pencils, colouring pencils
- Optional: playdough

DIFFERENTIATION

- There are three different habitats available for the design your own plant sheet
- There are three different levels available of the fill in the blanks student sheet

EXTENSION ACTIVITIES

Q. What might happen if the habitat which the plant is suited to changes? e.g. climate change?

Challenge students to spot plant adaptations in their local environment. Can they find climbing plants, plants with shiny waxy leaves, plants with spines? Take photos or crate a tally chart. Encourage looking closely, what other features can they spot and what might they be for?

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

www.botanic.cam.ac.uk/the-garden/about-the-garden/the-glasshouse-range/