





# Teaching Notes & Resources

Key Stage 2-3

Themes: Facts About Plants | Photosynthesis | Ecosystems | Environmental Issues

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## **INTRODUCING THE TOPIC!**

Produced in partnership with the RHS, *Plants Save the World* shows how plants are going to help us to SAVE the world.

From tiny seeds and weeds to massive trees, plants come in all different shapes, sizes and colours. They can be found all over the world. In fact, they're so common, we hardly notice them at all. But plants are the foundation of all life on Earth – without them, we cannot survive!

Answer the following questions in preparation for learning about the themes and ideas introduced in the book: *Plants Save the World.* 

- What are plants? Can you name any common plants that grow in your garden or local green space?
- · What do plants need to grow?
- What part of a plant keeps it stable and sucks up nutrients?
- What is the name of the process by which plants create food for themselves?
- What are pollinators? What do they do? Can you name any pollinating insects?

#### KEY TERMS AND THEIR DEFINITIONS

Before you read *Plants Save the World*, create a glossary of key vocabulary and important scientific terms. Find a starter list below; add more words to your glossary as you read.

Adaptation; Biotechnology; Climate; Deforestation; Ecosystem; Fertilise; Habitat; Nutrient; Organism; Photosynthesis; Pollination; Pollution; Re-wilding; Seeds; Stomata; Web of Life; Weeds.

### **CHALLENGE!**

Here are some facts about plants (p.4). Which is your favourite? Can you explain any of them in more detail?

Plants provide food and medicine.

Plants clean the air we breathe.

Plants provide habitats for animals.

Plants protect against disasters, such as flooding.

Plants are used to make products we use every day.









# PEEK INSIDE: CASE STUDY – WHAT ARE PLANTS?

'Green moss growing on a roof, daisies in the park, cacti in a desert and giant redwood trees: plants range from tiny weeds to vast trees!' Read pages 6–7 in which we learn more about plants and what they do.

### **DISCUSSION QUESTIONS:**

- 1. How many species does the plant kingdom contain?
- 2. What three features do 'most plants' share?
- 3. What is Photosynthesis? What does it help plants to do?
- 4. What is chlorophyll?
- 5. In Photosynthesis, what is the 'waste product' for the plant?
- 6. During the day, what do plants 'take in' and 'give out'?
- 7. How does the process of Photosynthesis help humans and the environment?

### CHALLENGE!

Draw an image of a plant rooted in the ground. Label the plant with basic vocabulary: roots, stems and leaves. Then, create a diagram that clearly shows the process of Photosynthesis. Try to include the following words: carbon dioxide, sunlight, chlorophyll, water, sugar, oxygen. Present your diagram to a classmate or friend, explaining the benefits of Photosynthesis.







# **REFLECTION ACTIVITIES**

- 'The web of life exists in all ecosystems around the world.' Read pages 8–9. What role do plants play in the web of life? Can you create a diagram showing how the web of life works?
- Create a food chain for an animal of your choice, showing the connections between the soil, plants and animals.
- Read more about 'tremendous trees' on pages 10–11. Choose a tree in your garden or local green space. Take time to study it, sketch it, and track how it changes in different seasons. Is it under threat? How? Create a case study of your chosen tree.
- Draw a diagram showing the process of pollination. Use pages 22–23 to help you.
- Look at the two plant-animal partnership examples on pages 24–25. Can you locate where in the world these partnerships occur on a map? Why are these partnerships so important?
- Use pages 30–41 to reflect on the relationship between plants and humans. How have humans used and benefited from plants? Create a Manual entitled: The Different Uses and Benefits of Plants.
- Summarise what 're-wilding' is and why this is an important topic, as well as the benefits of re-wilding. Are there any examples in your local area of re-wilding projects?
- In what ways are plants at risk from human activity? Draw a tree with several large leaves. In each leaf, write down one of the threats that plants face. You can use the book to help you or carry out some research of your own. On the back of each leaf, write down one way that we can overcome the threat by offering a solution to the problem.







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