

Teacher Resource

Tree Day

FOCUS QUESTIONS

1. Why were the kids in the BtN story planting trees?
2. What did the BtN *Tree Day* story mainly explain?
3. Why are trees important?
4. Trees take in carbon dioxide and release _____.
5. What is photosynthesis?
6. Trees provide habitats for all kinds of wildlife. Explain what that means.
7. How do tree roots help to stop the soil getting washed away?
8. What is deforestation and how can it impact on the environment?
9. How can trees make people feel?
10. Name three facts you learnt watching the BtN story.

ACTIVITY

Class discussion

Students will respond to one of more of the following questions. Record students' responses on the class whiteboard or on large pieces of paper in small groups.

- Why is it in our interest to plant trees and look after them?
- Why are trees important?
- In what ways do you use trees?
- How did people use trees in the past?
- How can we best take care of and protect trees?
- How would you feel if there were no trees left?
- Imagine Earth without trees. How would life be different?

Make a model of a tree (2D or 3D) to display in your classroom, including a trunk, branches and leaves. On the leaves, students will record their responses about why trees are important to people, animals and the environment.



KEY LEARNING

Students will learn about the importance of trees to people animals and the environment. Students will investigate the process of photosynthesis in a fair test investigation.

AUSTRALIAN CURRICULUM

Geography – Year 4

The types of natural vegetation and the significance of vegetation to the environment and to people ([ACHGK021](#))

Science – Year 4

Living things, including plants and animals, depend on each other and the environment to survive ([ACSSU073](#))

Science – Year 6

The growth and survival of living things are affected by the physical conditions of their environment ([ACSSU094](#))

Science – Year 8

Chemical change involves substances reacting to form new substances ([ACSSU225](#))

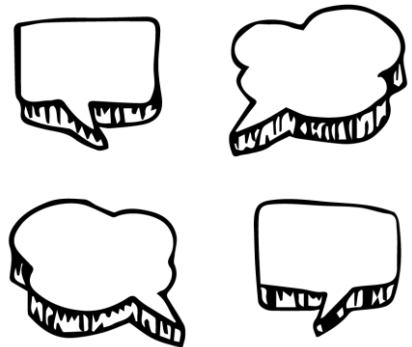


ACTIVITY

Learn more about biodiversity

Introduce the term biodiversity to your class, asking students what they think biodiversity means. As a class find a dictionary meaning.

Invite someone to your school to talk about biodiversity and conservation (park ranger, council worker, gardener, forester, zoo or wildlife park worker or botanic gardens worker). Brainstorm some questions that you would like to ask before they arrive.



- What is biodiversity?
- Why do we need biodiversity?
- What sorts of things can we do at our school to improve biodiversity?



ACTIVITY

Get to know the trees in your school yard

- Choose a tree in your school grounds.
- Describe the tree you have chosen using words and an illustration. Describe the trunk, branches, leaves, flowers, buds or any other interesting features you notice.
- Can you identify what type of tree it is? Find its botanical name.
- What are the tree's measurements? Measure the diameter of the base of the trunk and estimate the height of the tree.
- What is the tree's texture? What does the trunk, leaves and branches feel like?
- Are there any bugs or wildlife on or near the tree? Describe.
- Describe the tree's surroundings?
- How much sun, shade and water does the tree get?
- Measure the carbon in the tree. Use this [carbon calculator](#) to find out how much carbon dioxide the tree has absorbed to date. Learn more about measuring carbon in a tree [here](#).
- Record your findings. Visit the tree on a regular basis, to see if there are any noticeable changes. Record your observations.

Improve the biodiversity in your school yard

- Students will work together to plant and care for a tree in their school yard.
- Consider and decide what kind of tree you will plant and where you will plant it. Research which plants are native to your area. What trees do you already have in your school yard?
- Where will the tree get a good balance of sun and shade?
- Where will it look the best?
- Where will it be most appreciated?
- What materials and tools will you need?
- Predict and record the growth rate, for the first days/weeks/months, and see whose predictions are most accurate.
- Include an information label next to the tree for other students to learn more about the tree and the biodiversity of your school yard. Include the botanical name, when it was planted and some basic information. Create a [QR code](#) to link students with online content.
- Conduct guided tours of the location where you have planted the tree/s.
- Prepare a map of your school yard which highlights important plants in your school yard.

ACTIVITY

Fair test Investigation – photosynthesis

Provide students with the opportunity to think and behave like scientists. In pairs or small groups, students will set up a fair test to show that plants need light to grow. Working individually or in small groups, students will use an investigation framework when planning and conducting their experiment.

Before starting this investigation, watch this student film about photosynthesis and why seaweed is brown. Excited by the result of a class project, William was inspired to make his film *Why is Seaweed Brown?* Using a number of experiments, William demonstrates the properties of light, how plants need to absorb light to grow and how this happens in a limited light environment, thereby uncovering the hidden green of seaweed. See more at: [Australian Museum 2015 Sleek Geeks Eureka Prize](#)

Fair test Investigation – Photosynthesis

Discussion

- Explain to students what plants need to survive. Introduce students to the process of photosynthesis and how plants use photosynthesis to get their food.

Research

- Students will conduct research into the process of photosynthesis, either individually or in small groups.
 - o Describe photosynthesis in your own words.
 - o Where do plants get their food?
 - o What three things do plants need to survive?
 - o What chemical do plants breathe out into the atmosphere?
 - o Illustrate the process of photosynthesis. Draw a simple diagram or design a comic strip or an infographic.
 - o Can you work out the scientific equation for photosynthesis based on your findings so far? Arrange the following elements into a simple equation:
 - carbon dioxide
 - oxygen
 - water
 - light
 - sugar (food)

Investigation

- Students will design a fair test to show that plants need light to grow. Students will need to decide what plant they will use in their investigation and how they will show the effect different amounts of light has on the plant.
- Use the investigation framework below to guide students as they plan and conduct their experiments.
 - o What am I going to investigate?
 - o What do I think will happen (prediction)? Do you think the plant will be able to grow in darkness?
 - o Why do I think this will happen?
 - o What steps do I need to follow to investigate my

prediction?

- What materials and equipment will I need? Make list or draw and label each item.
- Write a sentence that summarises what happened.
- A labelled diagram or a table of your results or observations to demonstrate what happened.
- Was this what I expected? Yes or no.



USEFUL WEBSITES

Cool Australia – Schools Tree Day

<http://www.coolaustralia.org/unit/schools-tree-day-primary/>

Planet Ark – National Tree Day

<http://treeday.planetark.org/>

ABC Splash – Trees: A vital part of our lives

<http://splash.abc.net.au/home#!/media/106454/trees-a-vital-part-of-our-lives>

Ecokids – Benefits of Trees

http://www.ecokids.ca/pub/eco_info/topics/forests/benefits_of_trees.cfm



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