



Schools Tree Day – What is Biodiversity?

Teacher preparation

Overarching learning goal: Students will understand the complexity of the concept 'biodiversity' and will research real world concepts of biodiversity. Students will understand that biodiversity in its simplest form is the variety of life on Earth.

Teacher content information:

- **What is biodiversity?** Exploring the concept of biodiversity can be tricky for students. It is a complex term that has a complex meaning. Biodiversity put very simply is: Life, the world, and the variation of life that exists. To expand on this, biodiversity is the variety of all living things; the different plants, animals and micro-organisms. Plus it is the genetic information all living things contain and the ecosystems they form. We can explore biodiversity at three levels - genetic diversity, species diversity and ecosystem diversity. These three levels work together to create the complexity of life on Earth.
- **Why is biodiversity important?** Biodiversity is essential to sustaining all life on earth; it provides us with all the resources, food, wealth, fuel and the vital services our lives depend on. It also helps to keep our lives in balance and regulates the climate. Yet this rich diversity is being lost at a greatly accelerated rate because of human activities. In Australia, one of the big threats to biodiversity is land clearing. This destroys natural habitats and ecosystems as well as trees. Imagine being a creature living in the bush. You come home one day and your entire neighbourhood is bulldozed – gone. You must sort out your life from scratch. More than half our native vegetation has



been cleared. Add to that other threats – climate change, over-grazing, salinity and feral species. You have a rotten mix for our native plants and animals.

- **How can we help?** The good news is that there are many things we can do to help ease the pressure on this loss of biodiversity. We are not in a hopeless situation. In fact, even the simplest everyday activities can make a real difference. The best way to conserve biodiversity is to save habitats and ecosystems rather than trying to save a single species. One way to increase the biodiversity in the your local community is to take part in the largest nature-care event in Australian schools, Planet Ark’s Schools Tree Day. You’ll be joining thousands of amazing teachers in making a difference, fostering a child’s love of nature and creating positive environmental change. So, get growing! It only takes a minute to register at treeday.planetark.org.

Further information: [Cool Australia Presents Biodiversity](#) from [Cool Australia](#)

Student and classroom organisation

Step 1. Write on a whiteboard ‘Biowhat?’

Step 2. Tell students that when the BBC asked members of the public what they thought biodiversity was, the most common answer was 'a kind of washing powder'. Discuss the problem with this misinterpretation. If people don't understand the complex concept of biodiversity, how can we expect them to help with conserving it?

Step 3. Instruct students that they have five minutes to Google 'biodiversity' and copy and paste as five definitions as possible into a word document.

Step 4. Students will then create a word cloud using Wordle (www.wordle.net). Wordle is a tool for generating 'word clouds' from

text that you provide. The cloud produced gives greater prominence to words that appear more frequently in the source text. Because of this feature students will be able to detect trends and keywords in their five definitions of biodiversity.

Step 5. Ask students to study their word cloud. Which words are more prominent? Students may find that 'species', 'animals' and 'variety' are dominant, but there is no scientific basis for such dominance. The term biodiversity applies equally to ecosystems, genetics and biological communities. Conservationists must consider all of these things, not just 'species' and 'animals'. For younger students, get them to do a word cloud on 'living things' if the term biodiversity is too challenging.

Explain to students that it is difficult to pinpoint an exact definition of the word biodiversity. But the message is that we need a wide variety of living things on Earth.



References:



WWF - Biodiversity: http://wwf.panda.org/about_our_earth/biodiversity/

Australian Museum - What is biodiversity:
<http://australianmuseum.net.au/What-is-biodiversity>