

Sandhurst *KINSHIP WITH THE EARTH* – Unit Outlines

Level: 1 & 2
Title: *What Can You Do With Bamboo?*
Strand: Understanding Sustainability

- Teaching & Learning
- School Operations & Processes
- Management of Resources
- Community Engagement & Partnerships
- Story & Celebration

Suggested Duration: 4 Weeks

Unit Focus

In this unit, students will focus on how bamboo is made, how it is used and its impact on the environment.

Unit Outcomes

By the end of this unit students should be able to:

- Describe the basic characteristics of bamboo.
- Explain how bamboo is made and used.
- Compare bamboo to other materials.

Key Understandings for Students

- Bamboo can be made into a variety of products.
- Bamboo products are more environmentally-friendly compared to products made from other materials.
- Bamboo is a 'natural' material, compared to 'manufactured' materials.
- Bamboo can be reused and recycled.

Curriculum Links - VELS

Note: This learning unit also addresses the AusVELS cross-curricular priorities of 'Asia and Australia's engagement with Asia' as well as 'Sustainability'.

DOMAIN	DIMENSION	KEY ELEMENTS FROM STANDARDS
Design, Creativity and technology	<ul style="list-style-type: none"> • Investigating and designing • Producing • Analysing and evaluating 	Not applicable
Thinking Processes	<ul style="list-style-type: none"> • Reasoning, processing and inquiry • Creativity • Reflection, evaluation and meta cognition 	Not applicable

Background for Teachers

- Understand the properties of bamboo.
- Have knowledge about how bamboo is farmed and used.
- Have basic knowledge about other fabrics and materials.
- Know how bamboo is reused and recycled.

Focusing Activity

Present students with different types of fabrics, including bamboo. Include 'manufactured' fabrics like nylon and 'natural' products like hemp and wool. Make a comparison chart which classifies the properties of each fabric eg. by touch, smell, appearance, weaving, weight, natural vs manufactured. Suggest where each fabric might be found eg. tshirt, towel, scarf, wetsuit, carpet. This chart can be used for future comparisons and can be added to as the learning unit progresses.

- Select a fabric and create a backwards flow chart which explores how the product had been manufactured.
- Plant some bamboo in a pot for your classroom or in a contained area in your school grounds. Keep a video or photo log of the stages of the plant's growth.
- Research how bamboo is farmed in China or Indonesia. Compare this to other commonly used materials eg. cotton in Australia.
- Compare evergreens in China and Australia, e.g. the bamboo and the gum tree.
- Pass around photos and different bamboo products eg. bamboo bikes, clothing, furniture, instruments, building products. Students record their observations and questions about the different products. As a class, research some of these questions.
- Research what animals eat bamboo and how bamboo farming affects their habitat.
- Research how bamboo is used in cooking
- Use bamboo instruments to make music.
- Learn about bamboo chopsticks and use them to eat a class lunch.
http://www.asiaeducation.edu.au/curriculum_resources/countries/chin_cr/chin_a_virtual_tour_lessons/chopsticks.html
- Investigate how bamboo is turned into furniture and used for building. Take this further by using bamboo to experiment and make mini models.
- Investigate how bamboo is made into socks and undies. Why is it a good material for this purpose?
- Research and discuss how bamboo is reused and recycled.
- Visit the bamboo forest at the Royal Botanical Gardens in Melbourne.
- Guest speaker: Ask a local gardener or nursery worker to speak to the students about their experience with bamboo.

Going further...

- Harvest some of the bamboo you've planted at school and decide how to use it.
- Find out how many types of bamboo there are. Are there many colours and sizes? How tall can it grow? Are different types used for different purposes?
- Write a narrative about the 'life' of bamboo, from shoot to the end of its use.
- Write an article for the school newsletter about the benefits of bamboo..
- Why are slogans important for communicating environmental messages? Create slogans that encourage people to use bamboo, buy bamboo products or grow bamboo responsibly.

Resources

Asia Education Foundation (search for 'bamboo') – <http://www.asiaeducation.edu.au>

Bamboo Society of Australia - <http://bamboo.org.au/community/>

Bamboo Fabric Store - <http://www.bamboofabricstore.com.au/>

Bamboo Bikes - <http://www.bamboobikes.com.au/>

Bamboo Grove – 'Cooking with Bamboo' –
<http://www.bamboogrove.com/cooking-with-bamboo.html>

BBC World – 'Bamboo Time Lapse Growth 24hrs' –
<http://tune.pk/video/2234944/Bamboo-Time-Lapse-Growth-24hrs-co-BBC-World>

Burke's Backyard – 'Bamboo Factsheet' –
<http://www.burkesbackyard.com.au/factsheets/Others/Bamboo/1731>

Catalyst (ABC TV) – 'Bamboo Clothing' - <http://www.abc.net.au/catalyst/stories/3251919.htm>

Earthcare – Bamboo - <http://www.earthcare.com.au/bamboo.htm>

MSN - 'China's Pandas Threatened by Bamboo Buy-Off' -
http://www.msnbc.msn.com/id/21768608/ns/world_news-world_environment/t/china-pandas-threatened-bamboo-die-off/

World Wildlife Fund – 'Giant Panda' -
[http://wwf.panda.org/what we do/endangered species/giant panda/](http://wwf.panda.org/what_we_do/endangered_species/giant_panda/)

Xinhuanet.net – 'China's bamboo industry booms for a greener economy' –
http://news.xinhuanet.com/english2010/china/2010-07/18/c_13402777.htm