It is very important to lead students to an understanding that Aboriginal peoples had very highly developed technologies to enable them to live in their environments. They were early scientists and the technologies they used in everyday life are still utilised today. Aboriginal peoples used technology to adapt to and to change their environments little by little over a very long period of time and in such a way as to have had very little negative impact. Their survival over tens of thousands of years is due to their use of technology to live with the environment.

The use of language such as ‘technology’, ‘science’ and ‘engineering’, rather than ‘primitive’, ‘native’ and ‘prehistoric’, will reinforce this concept. So will linking Aboriginal practices to a dictionary meaning of technology.


- Episode 6 of *Many Nations, One People* is on Technology: [www.abc.net.au/schooltv/nations/ ep6.htm](http://www.abc.net.au/schooltv/nations/ ep6.htm)

- Brainstorm ‘technology’. What do the students understand this to be?

- Using an appropriate dictionary, find a definition for ‘technology’: Record it on a whiteboard and ask students to keep this meaning in mind throughout the discussion

- Use a thesaurus to find three other words that mean technology.

- List the types of technologies we use at school, in the home and workplace. Are these technologies all needed? Investigate the positive and negative aspects of each technology, eg
  - Interactive whiteboards
  - Laptops
  - Dishwashers
  - Car/Bus/train
  - Telephone
  - Mobile Phone
  - Internet
  - Playstation/X-Box
  - Microwave

- Discuss how technology has changed over time.

- Discuss the statement “Technology has changed the world”.

- Discuss how technologies influence people, their behaviour and environment
• What technologies do/did Aboriginal peoples have and use? How do we know this? Use pictures and information of both contemporary and traditional uses of these technologies, eg.
  ○ grinding stones
  ○ boomerangs
  ○ message sticks
  ○ yandi / coolamons
  ○ clapping sticks
  ○ women’s digging sticks
  ○ axes
  ○ grass trees
  ○ fire
  ○ ochre
  ○ bull roarers
  ○ fish traps
  ○ spears
  ○ canoes

• For each item students can research to locate the following information:
  ○ the local Aboriginal name for the item
  ○ a description of the item
  ○ how it is made
  ○ how it is used
  ○ if it is still used today
  ○ if there are new technologies which have a similar use in Aboriginal societies today?

• The booklet Tools, Weapons and Utensils gives a comprehensive summary of the range and types of tools used by Aboriginal groups all over Australia.

• Some comprehensive Information about tools can be found at: http://members.ozemail.com.au/~mmichie/engag_t&w.htm

• Questacon’s website has a page on Aboriginal technology which features the boomerang. http://www.questacon.edu.au/html/aboriginal_technology.html

• General information about tools can also be found at: http://www.cultureandrecreation.gov.au/articles/indigenous/technology/

• Rick Roser’s DVDs The Aboriginal Art of String Making, The Aboriginal Art of Fire Making and The Aboriginal Art of Ochre Painting are all interesting viewing for this topic.

• Learning about Aboriginal technologies is a perfect opportunity to invite a GECKOS Guest Presenter into the class to model making and using a tool.

• Each step of the process could be photographed to create a procedures chart for display.

• The Aboriginal Technology series of books written by Alex Barlow is a very valuable resource which can be found in the majority of school libraries. It includes the titles: The Spear, Boomerangs and Throwing Sticks and Women’s Technology.
• In the book *Making a Puljarna* from the *Stories from Kimberley Catholic Schools* series, the process of how to make a Puljarna (a ring of grass used as a pad for carrying things on the head) is shown in both words and photos.

• Students could construct a model of an Aboriginal technology and demonstrate how it works. Assistance and guidance from a guest presenter would be valuable with this task.

• Discuss ways of finding and collecting water. Use the GECKOS Program to invite a local community member into your school to assist in this activity.

• Using resources obtainable from your local area make a traditional water carrier. If resources are unavailable use layered wet paper to create the shape. Predict and observe
  ○ whether it held water
  ○ the length of time it held water
  ○ what materials work best
  ○ what processes work best

• Discuss how most Aboriginal people these days obtain food from shops. However many may still choose to hunt. They may use guns and a four wheel drive now as well as their more traditional implements.

• The DVD *The Yongka Hunt* shows a kangaroo hunt in contemporary south west WA. It is good for stimulating discussion about tradition and changing culture and technology. In the voiceover, Graham identifies some contemporary technologies which have replaced traditional ones in the hunt and in clothing and housing.

• *Rosie Makes Damper* is a book by Birrir Ngawiyiyu School, Ringer Soak in the *Stories from Kimberley Catholic Schools* series. Students can identify the modern technology that Rosie uses in making the damper in a contemporary setting as well as in the traditional way.

• *Nardika Learns to Make a Spear* is a good resource for integrating literacy and Aboriginal technology. Students learn how to make a spear by reading the narrative. They can then demonstrate their knowledge by writing the procedure.

• Students may compare Nardika and his father’s method of spear making with another method in the local tradition.

• The NNBNN Kit has a poster *Making a Kylie*, outlining the steps for making a boomerang in Noongar country.

• The Kindy Kit (south west) has a poster detailing the steps for *Making a Didj*.

• In the book *Yamaji Lifestyle and Culture*, there is a photo of the sort of shelter Yamaji people built using mud, paperbark and native grasses. Find out what materials the Aboriginal people of your country built their shelters from. Invite a guest presenter to assist students in building a shelter in the traditional way.

• *The 6 books in the Message Stick series: Bush Tucker, Hunting, Fishing, Tracking, Games We Play and Weapons* all have examples of Aboriginal
technologies.

- In *The Ten Canoes* DVD, viewers follow the long, involved process of making a canoe in Arnhem Land. Sections of this would be good viewing for primary aged students.


- Discuss the many uses of a tree. Lead the children to understand that only certain parts were used to build or make specific things such as shelters, canoes, weapons and implements without destroying an entire tree.

- *Exploring Woodlands with Noongars* is a resource produced by the Department of Environment & Conservation. It can be purchased from DEC or downloaded from their website at: [http://www.naturebase.net/content/view/2265/1090/1/1](http://www.naturebase.net/content/view/2265/1090/1/1)
  It has a section *101 uses for a Balga* which contains information and activities for students around the many uses of Balga trees by Noongar People.

- Discuss Scar Trees as archeological or anthropological evidence. Investigate the scarring on one side of a tree only, to mark the entrance into another people’s Country.

- Research the types of fish traps Aboriginal people made.
  - How were fish traps designed and what materials were used to build them?
  - Did they utilize the flow of the tides or rivers?
  - Visit a fish trap in your area or visit the Fremantle Maritime Museum to view a fish trap.
  - Students could design and make a fish trap.

- In the book *Yamaji Bush Tucker and Medicine*, the reader is told about Yamaji people using certain plants to stun fish to make them easy to catch by hand. This is a practice used by Aboriginal people in other areas too. Find out if this is something that is common to your area.

- The book also tells of Yamajis using fish skins for sandpaper. Find out if this was a more widely held practice. What other things were used for sandpaper?

- Many Aboriginal groups have some type of ‘soap’ bush. Find out if there is one of these in your area.

- A list of the many uses of fire can be found at: [http://www.primitiveways.com/uses_of_fire.html](http://www.primitiveways.com/uses_of_fire.html)
  The author comments on the use of Firestick Farming by Australian Aboriginal people. Information about the use of firestick farming can be found in the book *Caring for Country*, one of the ‘Our Voices’ series from the National Museum of Australia.

- Research how Aboriginal people used natural resources to make different types of musical instruments:
  - Didgeridoo
  - Boomerangs
○ Clap sticks
○ Gum Leaves

- Construct some of these instruments and make a Procedures Chart for each, outlining the steps in construction and using photographs to illustrate.
- The DVD Buried Country: The History of Aboriginal Country Music features Aboriginal artists playing gum leaves as musical instruments.
- Watch people making and playing didgeridoos in The Didgeridoo DVD

**Resources**

- Roser, R. *The Aboriginal Art of Fire Making*. Dundalli Aboriginal Arts and Crafts, 1997. 28min
- Roser, R. *The Aboriginal Art of Ochre Painting*. Dundalli Aboriginal Arts and Crafts, 1997. 22min
- Fry, C. *Nardika Learns to Make a Spear*. Magabala Books, Broome, WA. 2001
- Finci, E.P. *Yamaji Bush Tucker and Medicine*. Catholic Education Office WA.
Geraldton.

- Finci, E.P. *Yamaji lifestyle and culture*. Catholic Education Office WA. Geraldton
