



English - Contents

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FOCUS

- What words are associated with waterways?
- What do they mean?

OBJECTIVES

- Use a dictionary to locate words
- Define waterway related terms in own words

BACKGROUND

A catchment is an area where water drains into a waterway. Despite the fact that everyone lives in a catchment, only a small percentage of the population realise that catchment activities directly and indirectly impact on our waterways.

NOTES

This is a very flexible activity. Choose from the suggested learning tasks below according to your individual teaching style and student learning needs. You can add words to the list depending on students' understanding of the list provided.

LEARNING TASKS

The worksheet could form a part of students' waterway booklets and be completed as terms are introduced and discussed in various learning tasks.

1 Hand out sheets for students to complete.

- Complete as a whole class activity or in small groups as a rotation activity in a literacy block.
- Locate terms and definitions in dictionaries.
- Students can copy definitions then articulate in their own words, or define the words using student's own understanding of the words.

2 Encourage students to use words on the list to construct sentences.

- To make an open-ended task, students could construct their own glossary and choose terms to include.
- This activity could be conducted once in the week or several times as an assessment tool to evaluate existing knowledge and knowledge development.

3 Write definitions onto large pieces of card to be displayed around the classroom.

CSF II LINKS

- ENGLISH 4.1 Reading
4.1 Speaking & Listening

MATERIALS

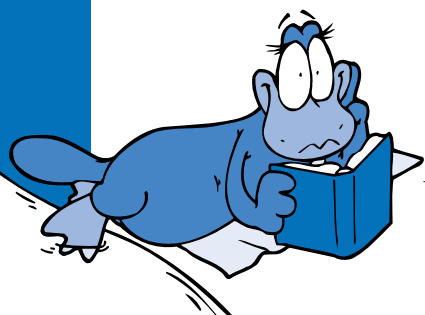
- 'Watery Words' Student Worksheet
- Dictionaries (optional)

EXTENSION

Make an illustrated dictionary for display. Add new words to the student's word list and learn through the English activity 'Pizza Smart Spelling'.

ASSESSMENT

Can students locate words in a dictionary efficiently, making use of guidewords? Did students apply appropriate vocabulary to practical situations? Did students increase their understanding of waterway concepts?



Watery Words - Student Worksheet

Name _____



• Algae _____

• Aquatic _____

• Catchment _____

• Erosion _____

• Exotic _____

• Invertebrates _____

• Meander _____

• Native _____

• Nutrients _____

• Reservoir _____

• Riparian _____

• Runoff _____

• Sediment _____

• Tributary _____

• Vegetation _____

• Waterway _____

• Wetland _____



FOCUS

- How can I learn my 'Water Week' spelling words?

OBJECTIVES

- Apply a variety of strategies to learn spelling words
- Evaluate and identify preferred learning styles

BACKGROUND

'Pizza Smart' is based on the idea that everyone can be 'smart' in different ways. Assisting students to identify which 'smart' they are will help them to learn salinity concepts more easily. The North Central Catchment Management Authority organises learning opportunities based on different 'smarts'.

NOTES

The key terms used throughout Water Week, see English activity, '*Watery Words*', can be used to form your students' spelling. Complete the spelling activities during class time or as homework tasks.

LEARNING TASKS

Work with students through the activities described below to determine which 'smart' they are.

BODY SMART Trace words on each other's backs or manipulate playdough to make words. Skip, jump or bounce a ball as you say letters, clap syllables, make letters with your body or write words in the air or sand.

LOGIC SMART Make your own dictionary by listing words and their meanings, sort words according to criteria e.g. syllables, spelling rules, patterns.

SELF SMART Devise tricks to remember words, keep a journal, test yourself, study the look / sound of words and use imagination to remember them.

MUSIC SMART Sing your spelling words. Words with six letters can be sung to 'Happy Birthday' and seven letters to 'Twinkle Twinkle'.

WORD SMART Break words into syllables, look for patterns, look up meanings, create sayings e.g. to remember 'piece' you can say a 'a piece of pie'.

PEOPLE SMART Play noughts and crosses or hangman using spelling words, have conversations with family where you speak by spelling out words.

PICTURE SMART Make and illustrate a poster, paint words, jumble / unjumble words.

CSF II LINKS

ENGLISH 4.3 Writing

MATERIALS

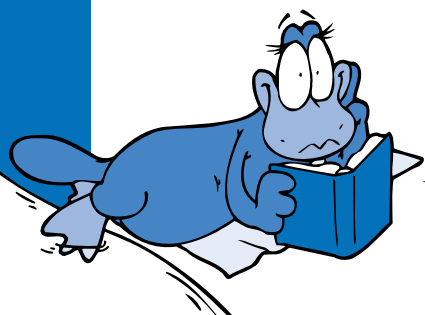
- Dependent on which 'smart' activity you are coordinating.

EXTENSION

Have students comment about Pizza Smart Spelling in their Waterways Booklets. Which strategies did they enjoy? Which strategies assisted their learning?

ASSESSMENT

Conduct a pre-test at the start of the program and a post-test at the end. How much and in what respects have student spelling results changed?



FOCUS

- What is riparian land and riparian vegetation?
- Why are they important to waterway health?

OBJECTIVES

- Read and highlight key information
- Demonstrate knowledge by labelling a diagram

BACKGROUND

Riparian land is any land that adjoins, directly influences or is influenced by a body of water. Due to its fertile nature, riparian land supports a high diversity of vegetation (called 'riparian vegetation'). This vegetation provides a range of habitats and food sources, supporting many animal species. The state of riparian land directly impacts on the health of waterways and vice versa.

NOTES

This activity is best conducted early in your Water Week studies. It provides students with the background knowledge required to appreciate the value of riparian vegetation, which will be of benefit throughout the week.

LEARNING TASKS

1 Engage students by conducting a whole class discussion

- Which waterways have you visited recently?
- What types of vegetation did you notice (grasses, rushes, trees)?
- Where was it located (in the water, on the bank, on adjacent land)?
- How would you describe the vegetation (flowering, inhabited, sparse / thick, old / young, healthy / degraded, native / exotic)?

2 Introduce students to the term 'riparian vegetation' to define the plant life discussed.

- Challenge students to predict the benefits of riparian vegetation for both the water and the animals that live in and around it.

3 Give each student an information sheet.

- Ask them to read each paragraph and highlight the key information that explains why riparian vegetation is important.

4 Allow time for a 'Think, Pair, Share' then discuss as a class.

5 Give each student a worksheet.

- Allow time for students to complete the caption in each box by referring to the information sheet or using their memory.

CSF II LINKS

- ENGLISH 4.1 Reading
4.4 Reading
- SCIENCE 4.1 Biological
4.2 Biological
- SOSE 4.2 Geography
4.3 Geography

MATERIALS

- **Whiteboard** or butcher's paper
- **'Vital Vegetation' Student Worksheets 1 & 2** (photocopied back to back)
- **Highlighters**
- **Pens and pencils**
- **Photos** of riparian land (see 'Photos' on the CD)

EXTENSION

Complete the Science activities, 'Habitat Surveys' and / or 'A Meandering Map'. They provide practical opportunities for students to investigate riparian vegetation.

ASSESSMENT

What prior knowledge did students have about riparian vegetation? Were they able to locate and highlight key information? Could they recall and apply this knowledge?



Vital Vegetation - Student Worksheet 1

Name _____



READ the following information.

Why is Riparian Vegetation so important?

Water quality

The plants beside a waterway slow the movement of water and wind from surrounding land into the water. Grasses, leaf litter and bushes act as a trap. They filter the soil, nutrients and toxic waste from the water. This helps keep our water clear and clean.

Bank stability

The root systems of riparian vegetation including native grasses, shrubs and trees, make the banks of waterways more stable by holding the soil together. This reduces bank erosion. Bank erosion is caused by water flowing down banks after rain, wind, livestock or by floodwaters. Stable banks protect surrounding land from damage and help maintain the natural course of the water.

Food supply

The leaves, twigs, branches, bark, sap, flowers and fruits of native riparian vegetation provides food for many animals. Plant material that falls into waterways from overhanging branches becomes food for fish, turtles, platypus, yabbies, frogs and other small creatures. On land, birds, reptiles, mammals and insects use plants for their food supply. Most animals, both in and out of the water, are food for other animals and they are all important parts of the food chain.

Farm success

Riparian vegetation acts as a windbreak, slowing down the wind that can dry out pastures and remove valuable topsoil. It can also shelter livestock from the sun, wind and cold. This is important for dairy cattle, lambs and newly shorn sheep. It is important to restrict direct livestock access to riparian vegetation, so they do not have a negative impact. Farms can diversify to include seed collection and sales, and ecotourism along riparian areas. The vegetation can also make a relaxing area to take a break.

Insects

The plants beside a creek or river provide homes for birds. These birds eat insects that can destroy pastures and crops. Not many birds live along bare riverbanks, so more grubs and insects are able to survive to become adults and to breed again. Higher insect populations create more damage to farms.

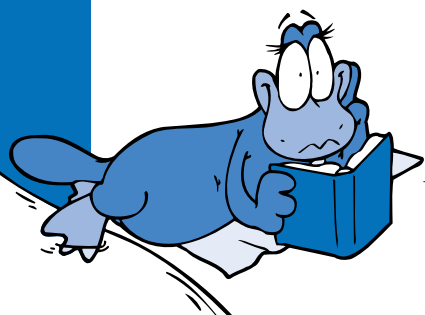


Habitat

Riparian vegetation provides shelter for animals living along a waterway. The roots of the vegetation also provide homes for fish and invertebrates under the water. The leaves and branches provide shelter and shade. The more habitat available, the greater the 'diversity' of life that can survive along and in a waterway.

Shade

Vegetation shades the water, reducing water temperature. Temperature is a controlling factor in the life cycle of many aquatic insects and fish.



Vital Vegetation - Student Worksheet 2

Name _____



USE the information sheet to write a heading in each box that explains the benefits of riparian vegetation.
COLOUR in the picture.



FOCUS

- What animals live in, on and near our waterways?
- What are their requirements and threats?

OBJECTIVES

- Research a chosen creature and construct a profile
- Present the information as a 'wanted' poster

BACKGROUND

Of the 208 frog species in Australia, 20 are considered endangered and seven are vulnerable. Of the more than 200 freshwater fish species, 11 are considered endangered and 10 are listed as vulnerable. Fifty-seven species of freshwater crustaceans are threatened. One issue they face is our lack of knowledge about their habitat requirements and threats to their survival.

NOTES

Providing a defined structure and list of research requirements will assist students, regardless of research experience. This activity may commence during Water Week, and then continue beyond this period either during school time or as a homework task.

LEARNING TASKS

- 1 Conduct a class brainstorming session, generating lists of animals that live in, on or near waterways in the region.**
- 2 Define and discuss the following categories: birds, reptiles, fish, invertebrates, mammals and amphibians.**
 - Place each of the suggested animals into one of these groups.
- 3 Assign an animal to each student to be researched.**
- 4 Students complete their research plan by inserting resources to use in the right-hand column of the worksheet.**
 - Distribute two copies of this sheet to students – one for the purpose above, the other for noting specific websites / page numbers.
- 5 Support students as they work through the research processes**
 - locating and scanning resources
 - taking notes and organising their ideas
 - writing and editing a draft
 - finding pictures or maps and preparing drawings or diagrams
 - planning the layout of their profile and presenting a good copy.
- 6 If time permits, provide opportunities for students to present their creature profiles to the class. Perhaps they could be filmed?**

CSF II LINKS

ENGLISH	4.1 Reading
	4.4 Reading
	4.1, 4.3, 4.4 Writing
SCIENCE	4.1 Biological
	4.2 Biological
SOSE	4.1 Geography

MATERIALS

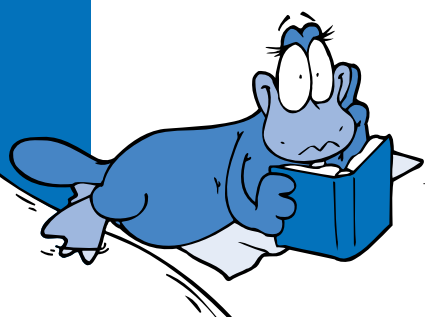
- **'Wanted' Student Worksheet**
- **Whiteboard** or large sheets of paper
- **Computers** with internet access
- **Field guides**, posters or photos
- **Atlas**, dictionaries, thesaurus'
- **Writing and drawing materials**
- **Video recorder** (optional)

EXTENSION

Pose the question: How does the work of North Central Catchment Management Authority help protect vulnerable animals?

ASSESSMENT

What level of independence did students demonstrate while working through the research process? Did students use appropriate vocabulary and paragraphs with headings and subheadings?



Wanted - Student Worksheet

Name _____



USE the research plan to help you prepare your animal report.

Research Plan

Information required	Resources
<p>HABITAT Where does the animal live? (in the river environment and within Australia)</p>	
<p>DIET What does the animal eat? Is it a carnivore, herbivore or omnivore?</p>	
<p>APPEARANCE What does the animal look like? What special features enhance the animal's ability to live, breed, hunt and feed successfully?</p>	
<p>LIFE CYCLE When does the animal breed? How does the animal rear it's young? What are the growth stages of the animal?</p>	
<p>PREDATORS What other animals prey on the animal? Where does the animal belong in the food chain?</p>	
<p>SPECIAL FEATURES How is this animal suited to life in or near waterways? What other interesting facts can you discover?</p>	
<p>THREATS What human activities can impact on the animal? What changes to river environments affect the animal? Do feral animals threaten the animal's survival? Is your animal rated as threatened or endangered?</p>	
<p>CONSERVATION How can we protect the creature? What can be done to ensure the creature's survival?</p>	



FOCUS

- What words can I use to describe waterways?

OBJECTIVES

- Study the structure of a Cinquain poem
- Brainstorm and select appropriate vocabulary
- Plan, write and publish a descriptive Cinquain poem

BACKGROUND

Waterways are an integral part of our lives, towns and memories. Their degradation can evoke powerful feelings in students, and become a valuable stimulant for descriptive writing. Inspiration for writing might come from discussion of students' memorable experiences of waterways, from field trips conducted during Water Week or from pieces created during Art activities.

NOTES

Cinquain poems have a very rigid structure of word and punctuation use. They serve as a useful task to revise and apply knowledge of adjectives and nouns.

LEARNING TASKS

- 1 Using the Cinquain Poem example as an overhead transparency, read the poem together with discussion of the words used, their purpose and their effectiveness.**
- 2 Lead a class brainstorming session to generate a variety of ideas for poem subjects.**
 - river • platypus • snag • murray cod
 - flood • red gum • billabong • fisherman
 - pollution • kookaburra • paddle steamer
- 3 Write a poem together as a class, modelling the process by thinking out loud as you brainstorm and make decisions about the most effective words to use. Use a thesaurus.**
- 4 Students select a topic and plan their poems. Encourage brainstorming as the first step of the process to compile words.**
- 5 Students edit their work. Focus on word choices as the first priority, then check punctuation, spelling and structure.**
- 6 Students publish pieces by hand or on computer, then illustrate and share them.**

CSF II LINKS

- ENGLISH 4.1 Reading
- 4.2 Reading
- 4.3 Reading
- 4.4 Reading
- ENGLISH 4.1 Writing
- 4.3 Writing
- 4.4 Writing

MATERIALS

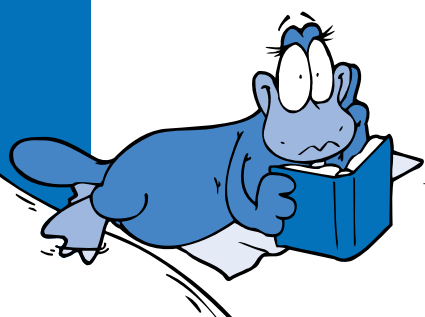
- *'Quirky Cinquains' Student Worksheet*
- *Thesaurus'*
- **Materials** for publishing

EXTENSION

Compile pieces to make a class book and send it to another school involved in Water Week, your local council or the Waterwatch Coordinator at the North Central Catchment Management Authority.

ASSESSMENT

Were students able to generate expressive pieces by using descriptive vocabulary? Did they follow the structure of Cinquain poems?



Quirky Cinquains - Student Worksheet

Name _____



READ the following example cinquain poem.

Example cinquain poem



All words are lower case
in a cinquain poem

waterway

wet, peaceful

lovely place to rest

waterway.

The first line is a single word
– the poem's subject

The second line contains two
adjectives that describe the subject

The two adjectives are separated
by a comma.

The third line contains four words
to form a meaningful phrase.

The final line simply repeats the subject



FOCUS

- How do waterways feature in my memories?

OBJECTIVES

- Recall special times spent at a waterway
- Plan, draft, edit and publish a river recount
- Present a recount orally in story-telling style

BACKGROUND

Australian waterways have undergone many changes since European settlement. Even over the past 50 or 60 years dramatic changes have occurred due to modifications to the landscape and the exploitation and misuse of our natural resources. While there are documents available that detail this change, often a clearer, more personal and entertaining picture can be made from talking to a person who has witnessed the change personally.

NOTES

This activity works well as a follow up to the SOSE activity, *'In Days Gone By'*, as students may feel inspired to tell their own stories after hearing those of community members. It can focus on a written form, oral form or both.

LEARNING TASKS

- 1 Discuss the stories and memories of local waterways as shared by visiting community members (if applicable).**
 - Encourage students to recall and retell the visitor's story orally.
- 2 Brainstorm to identify the features of a recount.**
 - Phrased in past tense, relayed in sequential order, use of adverbs that tell 'when'.
- 3 Conduct a 'Think, Pair, Share' session whereby students recall their own special memories of times spent at waterways.**
 - Encourage students to pay attention to detail.
 - Present an oral recount of your own special memory as a model.
- 4 Display a copy of the worksheet using an overhead projector.**
 - Model the process of transferring oral details to create a plan for a written recount.
- 5 Students complete their own Recount Planning Web.**
- 6 Students write a draft of their recount and edit it (after conferring with you or other students).**
- 7 Students present their recount orally.**

CSF II LINKS

- ENGLISH 4.1, 4.2, 4.3
Reading
4.1, 4.2, 4.3, 4.4
Writing
4.1, 4.2, 4.3, 4.4
Speaking & Listening

MATERIALS

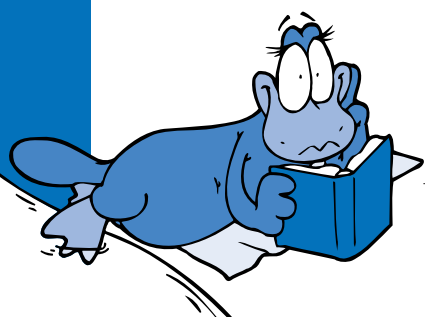
- **'A River Recount' Student Worksheet**
- **Overhead Projector**

EXTENSION

Role play a campfire scene and have students sit in a circle and recall their special memory. Make a night of it and invite family and friends to join you.

ASSESSMENT

Have students written recounts according to the required features of the genre? Were students able to express themselves by choosing interesting vocabulary? Did students adjust pace, volume, pitch and pronunciation to present an entertaining oral recount?



A River Recount - Student Worksheet

Name



COMPLETE the tables using information from the visitor's story.

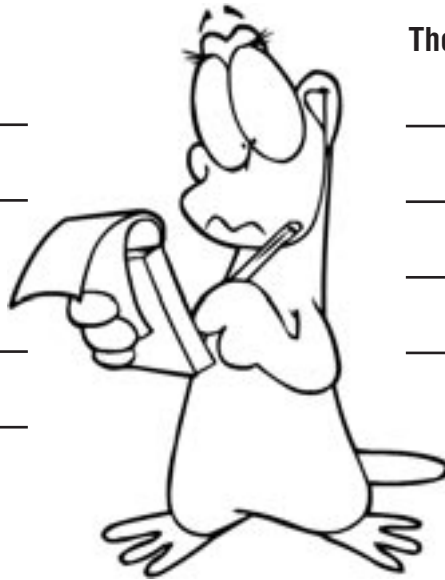
Who?

Where?

My Special Memory

When?

The message?



Why?

The future?



FOCUS

- If I were a plant, animal or object associated with waterways, what experiences would I have?

OBJECTIVES

- Adopt the identity of a living or non-living thing
- Write a creative piece of fictional text whilst in role

BACKGROUND

The components of a waterway interact with each other in either positive or negative ways. By placing themselves in role, students will gain a greater understanding of these interactions, in particular the importance of all the natural components of waterways, and what effects pollutants have.

NOTES

To immerse themselves in the role and express what their character sees, hears, feels, smells and tastes, students will require a solid knowledge of waterway issues. The story, *'Ponde the Murray Cod'* (written by Phil Cadwallader and produced by the Murray-Darling Basin Commission) is a good resource, providing a valuable model of this genre.

LEARNING TASKS

Students will take on the identity of a living or non-living thing and write an account of their experiences during one day.

- 1 Students select a character from one of the following, or make up one of their own.**
 - A piece of litter, a drop of water, a gum leaf, a seed or some soil making it's way into and through a waterway.
 - A native plant, a noxious weed, a snag, a hollow log, a fish, frog, bird or platypus living in a healthy or degraded waterway.
- 2 Students select a format from those listed below in which to write the creative piece. Discuss the use of the planning sheet.**
 - A cartoon strip
 - A short story
 - A journal
 - A letter
- 3 Students compose their creative pieces, paying particular attention to what they see, hear, taste, smell and feel.**
- 4 Give students the opportunity to share their work with others at various stages throughout the writing process, then revise and edit their pieces with a teacher or peer.**
- 5 Review a format for publishing the student's work.**

CSF II LINKS

- ENGLISH 4.1 Writing
4.2 Writing
4.3 Writing
4.4 Writing

MATERIALS

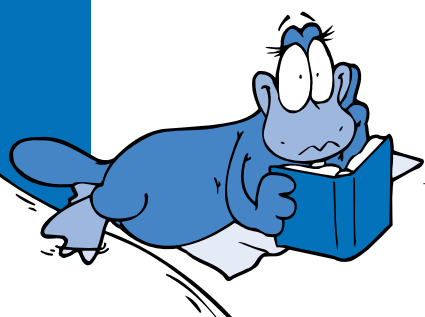
- Writing materials
- *'A Day In The Life Of'* Student Worksheet (enlarge to A3)
- Dictionaries and thesaurus (optional)

EXTENSION

Published pieces could be: compiled into a class book and viewed by each class in the school; sent home and shared with parents; read to or dramatised for junior students; recorded onto audio tapes and donated to the Junior School's listening posts; or printed in the school newsletter.

ASSESSMENT

How well did students generate creative ideas, apply interesting vocabulary, use punctuation and use resources? What do their pieces show about their knowledge of waterway issues?



A Day In The Life Of ... - Student Worksheet

Name _____



You are about to write a story about a waterway character. You could be a piece of rubbish, a native animal, or a weed, just to name a few ideas. You need to think about what your character will be doing over one day.

WRITE your ideas in the boxes below to help you start your story.

The main character in my story is _____

WHAT	
WHERE	
WHEN	
WHO	
WHY	
SEE	
HEAR	
FEEL	
SMELL	
TASTE	



FOCUS

- How do Indigenous Australians use waterways?
- What considerations do we need to make for Indigenous Australians when managing waterways?

OBJECTIVES

- Learn about waterway values (indigenous culture)
- Complete comprehension exercises

BACKGROUND

'Indigenous heritage is dynamic. It includes tangible and intangible expressions of culture that link generations of Indigenous people over time. Indigenous people express their cultural heritage through 'the person', their relationships with country, people, beliefs, knowledge, law, language, symbols, ways of living, sea, and objects all of which arise from Indigenous Spirituality'*

NOTES

This activity is a starting point for discussing Indigenous heritage associated with waterways. It is recommended when undertaking these activities that you invite a traditional landowner or tribal Elder to assist with comprehension and discussion.

LEARNING TASKS

- 1 Discuss with students their understanding of Indigenous Australians and their interaction with waterways.
- 2 Read creation stories about waterways.
- 3 Distribute worksheets for students to complete.
- 4 Discuss the results of students work.
- 5 Discuss the similarities between Indigenous cultural values and student's own values associated with waterways.

CSF II LINKS

- ENGLISH 4.1 Reading
SOSE 4.1 History
4.3 Geography

MATERIALS

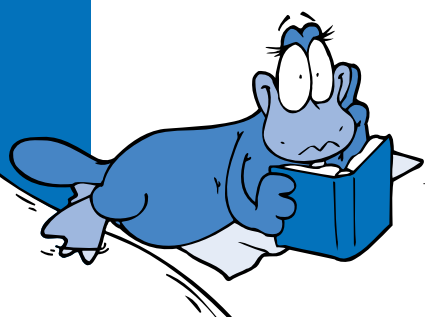
- *'Indigenous Australians'* Student Worksheet
- Variety of indigenous creation stories
- Aboriginal autobiographies

EXTENSION

Discuss with students the Indigenous artifacts and their importance for story telling. Undertake a field trip to a site of Indigenous cultural heritage with the support of a tribal Elder.

ASSESSMENT

What prior knowledge did students have about Indigenous Australians' interactions with waterways? Were they able to locate key information? Could they recall and apply this knowledge?



Indigenous Australians - Student Worksheet

Name _____



'Indigenous heritage is dynamic. It includes tangible and intangible expressions of culture that link generations of Indigenous people over time. Indigenous people express their cultural heritage through 'the person', their relationships with country, people, beliefs, knowledge, law, language, symbols, ways of living, sea, and objects all of which arise from Indigenous Spirituality'*.

Ways that Indigenous people may wish to manage heritage values they associate with waterways.

- "Restrict access by particular categories of people to some places may be required to maintain Indigenous customary law.
- Allow Indigenous people access to places so ceremonies and other management practices can take place.
- Allow access to traditional resources (e.g. food, ochre or plants) may be important in its own right or may be necessary for maintaining other cultural activities (e.g. ceremonies).
- Monitor sensitive Indigenous places to ensure visitors treat them with respect.
- Record and pass on stories about a place so that the next generation learns about its heritage value.
- Keep natural processes (e.g. water flows) that are an integral part of the significance of a place.
- Clean the country by removing rubbish, introduced plants and other foreign material from areas. This may also include burning areas of country*.
- Monitor earth disturbance to ensure past Indigenous camp sites are not disturbed.
- Painting at traditional art sites to ensure that law and tradition are maintained.
- Maintain and use structures related to events in Indigenous peoples history (e.g. cemeteries, mission buildings, Indigenous settlement and sites of protest.**)

Always ask Indigenous people about their heritage.

1 What does 'intangible' mean?

2 What is one way that you could protect a cultural site from visitors?

3 What impact could rubbish have on Indigenous heritage sites.

4 What story about a waterway would you like to tell your children in the future?

5 Which of these values do you share with Indigenous people?

6 Why do you think it is important to ask Indigenous people about their heritage?

*Text adapted from 'Ask First' Australian Heritage Commission, 2002

