



Teaching Unit

Reef Writers

Primary & Middle School English / Literacy

During their journey of discovery students get up close to the creatures of the reef and gain an appreciation for and inspiration from the diversity of colours, shapes, patterns and interrelationships that exist in nature.

Curriculum Links

Completing this Reef HQ Education Program will develop students' ability to:

- Make meaning of cultural contexts and social situations by interpreting, constructing and deconstructing literary pieces, mass media and every day texts;
- Demonstrate knowledge of what makes texts appropriate to and effective in a given cultural context and social situation;
- Demonstrate understandings of the ways texts are typically shaped, as genres and text types, according to cultural purposes;
- Interpret and construct spoken (signed), written, visual and multi-modal texts;
- Know about and use their knowledge of the ways in which choice of textual resources is influenced by text type, subject matter, roles and relationships and mode and medium;
- Interpret and construct texts in ways that demonstrate understanding;
- Make particular language choices to position listeners, readers and viewers; and
- Understand how discourses influence the interpretation and construction of textual representations.

The following unit includes suggestions for activities that can be completed before and after your Reef HQ visit.



Australian Government
Great Barrier Reef
Marine Park Authority



Reef HQ is the education centre for the Great Barrier Reef



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Reef HQ Visit

This teacher resource is linked to a class visit to Reef HQ. The Reef HQ visit will enable students to:

- Gain an appreciation for the Great Barrier Reef;
- Take inspiration from the living ecosystem to demonstrate competency in speaking and listening, reading and viewing, and writing and shaping; and
- Become active and informed citizens with the ability to make meanings in contexts, operate language systems, and evaluate and reconstruct meanings in texts.

Theme Overview

Imagine a place that is so large that it can be seen from a spacecraft orbiting the Earth!

The Great Barrier Reef stretches more than 2000km along the northeast coast of Australia. Comprising more than 2900 reefs, some 940 islands and surrounding waters, the Great Barrier Reef is the largest natural feature on Earth.

Covering more than 348,000km² the Great Barrier Reef World Heritage Area is internationally recognised as a unique area of outstanding value to human kind and a jewel in the crown of the world's natural wonders.

A huge diversity of important habitats including coral reefs, seagrasses, mangroves, sponge gardens and muddy seabed communities make the entire Great Barrier Reef Marine Park. The Marine Park is home to a number of threatened species and important nesting and breeding areas for marine turtles, dugongs, seabirds and whales. Many activities take place within the Great Barrier Reef Marine Park including fishing, tourism, shipping and research. It is a multiple use area, offering protection to the plants and animals that call it home, while also supporting many coastal communities.

The Great Barrier Reef is under pressure. Everything we do on the reef, along the shore and even on the land effect this diverse and fragile ecosystem. The plant and animal communities that make up the Great Barrier Reef need to be protected for future generations. We can all do our bit to look after it!



Reef Writers – Activity Ideas

Tuning In

Six Hat Thinking

Introduce Edward de Bonos's *Six Thinking Hats*. This process can be used to conceive, design and contextualise ideals and feelings about the Great Barrier Reef. Place cut out hats on the floor and group responses as a class.

Red Hat (Feelings) What are my feelings about the Great Barrier Reef?	White Hat (Information) What do we already know about the Great Barrier Reef?
Blue Hat (What thinking is needed) Think of ways to use various mediums to depict, represent or display the various aspects of the Great Barrier Reef	Green Hat (New ideas) How else could various forms of text represent and display the various aspects of the Great Barrier Reef?
Black Hat (Weaknesses) What questions or issues could our writing raise about the Great Barrier Reef?	Yellow Hat (Strengths) What key messages could our various text modes deliver about the Great Barrier Reef?

Picture Gallery (electronic imaging)

Using the *GBR Explorer* and *Visual Library* as stimulus sources. Print out images of the Great Barrier Reef from the Reef ED website:

GBR Explorer

<http://www.reefed.edu.au/explorer/>

Visual Library

<http://www.reefed.edu.au/library/index.html>

Students may also wish to bring in photographs or books with pictures of the Great Barrier Reef and its islands, animals and plants.

Imagining Echinoderms

The names of some reef inhabitants are weird and wonderful. Many people may never have heard of them. Hearing their names could dream up all sorts of imaginary creatures and critters. Read students some names of reef inhabitants and ask them to draw and write any special characteristics of these animals. Reinforce that this is not an activity where there is a right or wrong, it's an activity that stimulates their imagination. Share student's drawings and explanations, and show pictures/video/images of the real reef creatures.

For example:

Echinoderm	Sea Squirt	Hump Head Maori Wrasse
Nudibranch	Dash-dot goatfish	Spider shell
Gastropod	Christmas Tree Worm	Sand dollar
Parrotfish	Scorpionfish	Fire coral

Limericks

Limericks are nonsense poems that are fun to say. A limerick has five lines. Lines 1, 2 and five rhyme with each other and have approximately the same number of syllables. Lines 3 and 4 rhyme with each other only and are shorter. It has action words in it. It is written in past tense. The beginning is usually 'There...' Each line starts with a capital.

There was a turtle named Crush
Who was never in a great rush
He said jellyfish
Were is favourite dish
Because they tasted so lush.

Have students write their own limericks using reef creatures as the character. Reef HQ's turtle is named Lucky T.

Preparing to Find Out

Reflective Writing

Ask students the question "What is the Great Barrier Reef Marine Park?"

Complete the sentence "When I hear the phrase Great Barrier Reef Marine Park, I think of..."

What does "Lets Keep it Great" mean to you?

Creative Writing

Choose a reef related story. After students have either listened to or read the story, conduct the following creative writing activities.

Retelling the story

Student groups can create murals of different sections of the story and then display them in order.

Rewriting the story

Have students consider a key moment in the story. If the actions of the characters were different at that moment how would have the story played out? Students can rewrite to produce a new story.

Predicting / Hypothesising

How would the story have changed if key events within the story were different? Allow time for shared discussion to foster ideas, before the children write their predictions in a few sentences. As a whole group, classify these predictions into probably, possibly, unlikely and impossible.

Deconstructing the story

Have students create and complete a table with the following headings

Character	Events in the story involving this character	Outcomes for this character

Story maps

Students create a story map of their selected reef story:

- Think about where the story started. Draw this.
- Think about where the story ended. Draw this in too. Write a few words beside start and finish.
- Think of the events that happened between the start and the finish. Mark these in too.
- Draw the main characters in the places on the map where you think they fit best.
- Add scenery, then any comments that you wish.

Finding Out

Visit Reef HQ, explore the reef up close and experience Reef HQ's *Reef Writers* Education Program. Encourage students to bring their pre-prepared questions to Reef HQ for further exploration.

Discuss with students what they think they will see and what they hope to see at Reef HQ. Explain to students that the visit to Reef HQ will give them an opportunity to observe the reef up close. Through student-centred discussion, call upon students to make a list of the essential equipment they think they will need when going on an excursion to Reef HQ.

Sorting Out

Written Expression

Riddles

Students develop riddles that identify reef creatures. Riddles can then be used on other members of the class.

My skeleton is on the outside
I have ten legs
Some people like to eat me

C_____ (*Crayfish*)

Descriptions

Have students pretend they have been writing to a pen friend in a far of land. In one of your letters they mention a Dugong. Their pen friend has never seen a Dugong and has written back asking for a full description. Students write back giving the full description.

Radio Commercials

In five or more sentences students create a radio commercial advertising the Great Barrier Reef.

A Short News Report

Short news reports:

- Give factual information.
- Are about recent events.
- Do not include opinions or comments.
- Answer the questions of Who, What, Where and When.
- Have a catchy headline.
- Mention the most important information first.

Have students use the *Hot Topics* section of the Reef ED website to develop fictional news reports on the various topics.

http://www.reefed.edu.au/explorer/hot_topics.html

Source reef related news reports from newspapers and deconstruct them. Do they answer the Who, What, Where and When questions? Challenge students to list the answers to these enquiry questions beside the news report. Students may wish to compile a portfolio of reef related news reports. Encourage students to review local and national newspapers; the following web addresses contains a media archive of reef related stories:

http://www.gbrmpa.gov.au/corp_site/info_services/media/media_archive.html



Animal Profiles

From the list below select one reef animal. Write a letter from this animal to any other animal on the list. It can be a letter of complaint, a congratulatory letter, a query, a mail order or any sort of letter you like.

Select a different animal from the list. Build up a character profile of this animal what does it like, what does it dislike, what are the most important things in its life, does it share any special relationships with any other animals.

Shark	Stingray	Jellyfish	Coral Trout
Dugong	Hermit Crab	Octopus	Cleaner Wrasse
Anemone	Plankton	Clownfish	Coral
Crown of Thorns	Mud Crab	Green Turtle	Human

Class Debate

Divide students into debating teams and call upon them to debate topics such as:

- Oceans are for everybody. People should be able to take as much as they want from the ocean;
- Humans need energy to survive. We should mine the Reef for oil and natural gas;
- Tourism makes money. More tourists should be allowed to travel within the Great Barrier Reef World Heritage Area; and
- Biotechnology could lead to many useful and sometimes lifesaving materials and medicines being generated. The increased government funding should be given to reef biotechnology research.

Going Further

Ballad

Use the following ballad "We take so much for granted" as stimulus:

We take so much for granted
It's almost beyond belief,
We think that all will stay the same
Even our precious reef.

Mel's thoughts just kept on wandering
As she stared out to sea,
Her desire to help the ecosystem
Is just how it should be.

"I want to do my share", she thought,
"And protect this precious place,
Save the threatened species".
Then confusion changed her face.



“How can I do my bit to save
The dugong becoming extinct
What is it that these creatures need?”
Mel began to think
“I know the sea grass is their home
So that’s a place to start,
If I become a volunteer
I can play my part.

Then there are the Coral Trout,
They’re also under threat,
From rubbish in the run-off
And small ones in the nets.

We can’t forget the turtles,
The Loggerhead for sure.
Disease and nets endanger them,
It can’t happen anymore.

The Manta Rays that glide with grace
Often look quite mean
But our reef without these wondrous rays
Would be an awful scene.

And then of course the Mud Crabs
That scurries across the floor,
Are often not found on the reef
But through the kitchen door.

If we just took the big ones
And left the females free,
The crabs would last forever
Not just for you and me.

Pollution affects our dolphins,
Gillnets do the same
Pacific Humpbacks are in decline
But we can play the game,

By buying tuna that’s ‘dolphin safe’
We keep their numbers high.
But how can we help the Boobies
Those birds that fly so high?

When diving to get their daily food
They must avoid the fishing gear
And even yucky discarded oil
That covers them in smear.



And there they can flounder
And suffer so.
We have to take it seriously
And act as though

It's more our home than just a reef
It's our future that's at stake.
We must protect these species
It's all our choice to make.

Mel then stood up
Tall and proud,
"I will help",
She yelled aloud,

"I'll learn all the things I need to
To make the reef a place
Where all the creatures survive in peace,
And freely live with grace.

I'll get my mates to join me
My family and their friends
We'll work on doing what we can
Until the message ends

Up creeping `cross the land,
So everyone who comes
To see this wondrous place of ours
That glistens in the sun

Can stand and look in wonder
At creatures living free,
For no more threatened species
Its up to you and me."

Students listen to the ballad being read. Discussion of reading purpose can follow the ballad may be read for the impact it creates, for the effect of its rhythm, for the imagery it creates, for its progression of thought, for its plot or simply for the pleasure of being heard and shared.

Discuss any noteworthy features of the ballad. Students interpret the key messages delivered by the ballad and share their interpretations. Encourage students to justify with examples any of their interpretations.

Challenge students to develop lists of words that are associated with the text in some way. Can any unexpected connections be made between word lists? Students can explore relationships between ideas represented by words. Encourage students to use their imagination to invent the story behind the ballad. This may be achieved by seeing the story as a broad context for the events described in the ballad or by letting the story explain the circumstances that led to the ballads creation.



Individual interpretations of the ballad can be shared in a group discussion. This should be relatively unstructured to provide maximum opportunity for students to consider original ways of exploring the meaning and form of the ballad. Students can also share the ideas and feelings generated by the ballad. Arrange a debate when two alternative interpretations of the ballad appear.

Students can represent an idea or a scene from the ballad. Representations may include mimes, role-plays and dramas. Simulated interviews with characters from the ballad could be conducted. Music and/or dance may also be used to reveal the feeling and meaning of the ballad.

Transforming the ballad into other media could prove exciting and imaginative. Pictorial representations, which capture the meanings of the ballad, may include natural and synthetic materials, photographs, slides, film, power-point slideshows, comic strip and cartoons. Three-dimensional representations include sculpture, papier-mache models, clay models, plastic mouldings and plasticine models. Verbal representations include short stories, plays and poems.

Reef Poetry

Using their Reef HQ visit as inspiration, ask students to compose the following poetry genres.

1. Acrostic poems

- Have titles that match the initial letters of lines, read downwards.
- May or may not have lines in which each word begins with the same letter.

Ants

Active agile acrobats

Neat and natty nuisances

Tiny tumbling terrors

Scenting savoury smells

2. Catalogue verse

- Lists things, ideas or feelings that have something in common.
- Have short lines, perhaps of a single word or phrase.
- May be any length
- Has a rhythmic diction that evokes meaning
- Creates imagery from a word sequence

Holidays

Joyful

Freedom

Exciting

Short

Lonesome

Never ending

Boring

School



3. Cinquain

- Have a five line formate
- Line 1 – noun
- Line 2 – two adjectives
- Line 3 – three verbs
- Line 4 – a phrase of four words
- Line 5 – synonym as metaphor for original noun in line 1

Mother

Cuddly, warm

Protects, teaches, encourages

Always finds a way

Love.

4. Diamante

- Enhances expression
- Encourages precision of language
- Encourages the development of imagery
- Has a seven line formate
- Line 1 – noun
- Line 2 – two adjectives describing noun in line 1
- Line 3 – three participles (-ed, -ing words) referring to noun in line 1
- Line 4 – four nouns (two related to the noun in line 1 and two related to the noun in line 7)
- Line 5 – three participles (-ed, -ing words) referring to noun in line 7
- Line 6 – two adjectives describing noun in line 7
- Line 7 – noun (opposite of noun in line 1)

friend

kind, gentle

loving, helping, laughing

team, alliance – war, solitude

scowling, hindering, hating

hurtful, unjust

enemy.

5. Dylan Thomas Portraits

- Focus on the senses
- Have the form of a question, followed by descriptive phrases in response

Touch

Did you ever feel a toad?

Rough skinned, stomach swollen, throat pulsating.

Sound

Did you ever hear a classroom?

Voices rumbling, chairs scraping, teacher shouting.



6. Grammar poems

- Have similar initial sounds in all words
- Have four lines
- Line 1 – adjective (descriptive word)
- Line 2 – noun (naming word)
- Line 3 – verb (action word)
- Line 4 – adverb (tells about the action)

Sneaky

Snake

Swims

Swiftly

7. Haiku (Japanese poem)

- Are concerned with nature or the seasons
- Refer to a particular moment or event
- Are written in the present tense

Raindrops

Raindrops on the pane

Slowly, steadily, downward

Intriguing picture.

8. Theme poem

- Creates a picture through a series of images
- Has four lines of 4, 3, 4, 3 words respectively
- Has commas separating words

Industry

Smoke, soot, smell, choke,

Flash, orange, black,

Steel, iron, coal, coke,

Trucks, rail, track.

Making Connections

Writing Reports and creating portfolios

Have students participate in and complete the *Reef Rescue* or *Discover me in the Sea* web quests found on the Reef ED website.

These web quests and others can be found at the following link:

http://www.reefed.edu.au/students/reef_quest/index.html



Conflict Resolution

The Great Barrier Reef Marine Park is a multiple use resource. This means that there are many people wanting to use the Marine Park for different activities. Instead of fining people for doing the wrong thing, the Great Barrier Reef Marine Park Authority would rather people understand why it's important to do the right thing while using the Marine Park.

Write a script for a short play that depicts people doing the wrong thing in the Marine Park. The script should include animals, plants and people. After acting out the first play rewrite the script so as to depict people doing the right thing within the Marine Park.

You may wish to choose a number of these scripts and act them out on school assembly to educate the school community about the dos and don'ts in the Marine Park.

Problem solving, alternative solutions and persuasive arguments

Brainstorm as many negative impacts that humans cause within the reef environment as students can think of.

Have students select one of these negative impacts and:

- List five possible reasons for why this negative impact is occurring.
- List five solutions to this negative impact.
- List five reasons why we need to stop this negative impact from continuing.
- Using all of the information gathered. Write a letter that would persuade people to change their behaviour and stop this negative impact from occurring in the future.

Survey

Have students develop five survey questions that they would like answered about the reef. Students can conduct their survey with classmates, family members or within the school community. Students may wish to graphically represent the results of their survey and discuss any trends that may appear.

Peer Tutoring

Students choose a writing genre that have most enjoyed and teach its technique to younger members of the school community.

Taking Action

Writing Instructions

When writing instructions you must include certain features

- Use action words
- Present tense
- List in sequence

To ensure the Great Barrier Reef is as great tomorrow as it is today, people who visit the reef are encourage to follow *Best Environmental Practices* these are simple instructions for various activities. View *Best Environmental Practices* at the following link:

http://www.reefed.edu.au/explorer/landscapes/reef_environment/best_environmental_practices/environment_best.html



Prepare a set of *Best Environmental Practices* for going on a field trip for example, a day at the beach.

Letters to the Editor

Explain that the *Letters to the Editor* section in newspapers gives people a chance to make comment and express their opinions about events they may be occurring locally, regionally, nationally or globally. Have students write letters to the editor regarding reef related issues.

Reef Writers Exhibition

Students display or exhibit reef related writing genres in school or local library. Invite an audience to view student work and listen to readings. Encourage students to explain the nature of their piece and give a behind-the-scenes interview with the audience.

Become a Reef Guardian School

This is an exciting, innovative program that encourages students, teachers, parents and friends to become involved in protecting our environment and the Great Barrier Reef. Reef Guardian Schools are environmentally active and participate in reef education through activities and environmentally friendly initiatives. Students and teachers promote best environmental practices and the importance of Reef protection to their communities. To find out more go to:

<http://www.reefed.edu.au/guardians/>

Web-sites

Queensland Studies Authority

<http://www.qsa.qld.edu.au/yrs1to10/kla/english/index.html>

Reef ED

www.reefed.edu.au

Great Barrier Reef Marine Park Authority

www.gbrmpa.gov.au

Reef HQ

www.reefHQ.com.au

Australian Institute of Marine Science

www.aims.gov.au

CRC Reef Research Centre

www.reef.crc.org.au

Environment Australia

www.deh.gov.au

Discovery channel – Creatures of the Deep

www.discovery.com/stories/nature/creatures/creatures.html

ABC Online

www.abc.net.au/oceans/alive.htm



Biodiversity

www.cbn.org.au/member/cbn/context/

Marine Education Society of Australia

www.mesa.edu.au

Marine Teachers Association

www.wetpaper.com.au

Marine Creatures

www.enchantedlearning.com/subjects

Reef Education Network

www.reef.edu.au

Indigenous Australia

www.dreamtime.net.au/index.cfm

Books

The following is a list of books by Australian Authors that focus on the sea and the reef.

Allen, P. *Mr McGee Goes to Sea*

Ashman, L. *Rub-a-Dub Sub*

Bacon, R. *The Bay*

Baillie, A. *Creature*

Baillie, A. *Treasure Hunters*

Baker, J. *The Hidden Forest*

Baker, J. *Where the Forest Meets the Sea*

Balderson, M. & Smith, E. *Sea Bird*

Barber, S. *The Mermaid Princess*

Base, G. *The Sign of the Seahorse*

Beames, M. *The Shearwater Bell*

Bligh, V. *Siren's Curse*

Boil, D. *Coral Reef Hideaway, the story of a Clown Anemonefish*

Brown, A. *Turtle's Song*

Carle, E. *A House for a Hermit Crab*

Cleland, J. *Radical Diver*

Cooke, A. *Fun by the Sea*

Cruse, B. *Bittangabee Tribe*

Dwyer, C. *Jimmie Jean & the Turtles*

Freymann, S. *One Lonely Seahorse*

Grant, J. *Everyone likes the Sea*

Gray, N. *Sun, Sea, Crab and Me*

Hiddins, L. *The Coral Coast*

Hook, C. *Coral Reefs*

Kelleher, V. *Goblin on the Reef*

Lister, A. *Magic Beach*

Maris, S. *At the Beach*

Morris, J. *Coral Reef Fairy*



Oktober, T. *Oil Spill*
Oktober, T. *Reef*
Rose, D.L. *Into the A, B, Sea*
Toft, K.M.& Sheather, A. *One Less Fish*
Toft, K.M.& Sheather, A. *Neptune's Nursery*
Vyner, T. *Coral Trail*
Ward, H. *Old Shell, New Shell*
Winters, B. *Be safe at the Beach*
Winters, B. *Sea Creatures*

References & Resources

Brownie, M. (1989) *Telling Tales : A Teaching Resource*. Horwitz Grahame; Sydney.

Howard, P. (1994) *Practice Your English*. Logman Cheshire Pty Ltd; Melbourne.

Leapfrog Language. Pascal Press; Australian Print Group, Australia.

Strickland & Strickland (1997) *Language and Literacy : the Poetry Connection*. Language Arts, Vol. 74, March.

Syme, C. (1986) *Fantastic Ideas for Frenzied Teachers*. Holmes McDougall Australia & Educational Supplies Pty Ltd; Australia.

