

Learning in the Redlands



Teacher Information

Lesson 3

Grade 4/5

Southern Moreton Bay Islands (Marine Studies)

MODULE 2: SEQUENCE OF LESSONS

Lesson 1: The Location and Characteristics of the Southern Moreton Bay Islands
(Prepare a Pollution Audit Table)

Lesson 2: How Clean is Moreton Bay? (Excursion to Coochiemudlo Island)

Lesson 3: Sustaining the Marine Animals in the Southern Moreton Bay Islands
(Persuasive Argument)

1. Topic:

Sustaining the Marine Animals in the Southern Moreton Bay Islands.

2. Aim:

This activity is designed to teach concepts, knowledge, and understanding of the life cycle, habitat, and main characteristics of a chosen species of Marine animal that inhabits the waters surrounding the Southern Moreton Bay Islands. This activity helps develop students' higher order thinking skills as students create a Persuasive Argument on how we can help to protect and sustain this species environment using a PowerPoint presentation as the medium for this message.

3. Prior Knowledge:

- Students should draw on prior knowledge of the location, environmental and physical characteristics of Southern Moreton Bay Islands.
- Students should have an understanding of the types of Environments of the Moreton Bay Marine Park.
- Students should be able to identify and name some marine animals that exist in the Moreton Cay Marine Park.

4. Focus Question:

What can we do to help the Marine Animals of Moreton Bay Marine Park?

5. Duration of lesson:

- a) Class Discussion: about 30 – 40 minutes.
- b) Persuasive Argument: 4 x 40 minute lessons.

6. Useful Vocabulary:

Moreton Bay, environment, climate, tides, Marine, Park, dugong, dolphin, turtle, shark, prawns, Manta Ray, mud crabs, Moreton Bay bugs, habitat, bay, passage, creek, river, tides (noun), tidal (adjective), currents, saltwater, freshwater, seaweed, fishing, island, conservation, Aborigine (noun), Aboriginal (adjective), beach, channel, sand, sustainability, pollution, litter, oil leaks, water quality, speed limit, signs, fish nets.

Learning in the Redlands



Teacher Information

Lesson 3

Grade 4/5

7. Core Learning Outcomes, Strands and Processes:

• Studies of Society and Environment

Key Values: Ecological and economic sustainability, Social Justice, and Peace.

Strand: Place and Space

Communicating:

SRP 3.1 Students make inferences about interactions between people and natural cycles, including the water cycle.

- English (draft Syllabus)

Strand: Cultural

Speaking and listening

Cu 3.1 When speaking, students:

- make choices of subject matter depending on audience, purpose and the medium
- extend ideas and information with some details
- clarify meanings and give possible explanations.

When listening, students:

- recognise that certain types of texts are used for particular purposes and audiences
- make connections from directly stated information to identify the main ideas of texts
- make connections between ideas and supporting details.

Reading and Viewing:

Cu 3.2 When reading and viewing, students:

- select texts for own reading and viewing purposes using knowledge of text types
- interpret subject matter by making connections between directly stated information to identify main ideas and supporting details
- make some inferences about characters from directly stated descriptions and actions.

Writing and Shaping

Cu 3.3 When writing and shaping, students:

- negotiate purposes for writing and shaping
- select relevant genre and medium
- research familiar and unfamiliar ideas and information to develop a topic or argument that uses some elaborated ideas with supporting details
- develop simple plots, character descriptions and settings
- consider interests of the audience when selecting subject matter.

Learning in the Redlands



- Technology

Strand: Visual Arts

Making and Displaying

INF 3.2

Students select and use techniques for generating, modifying and presenting information for different purposes.

8. Syllabus Links:

Lifelong Learners	Cross-Curricular Priorities	Learners and Learning	Equity
<ul style="list-style-type: none"> • Participant in an interdependent world • A creative person • Reflective & self-directed learner 	<ul style="list-style-type: none"> • Literacy • Life skills 	<ul style="list-style-type: none"> • Unique individual with divergent views • Occurs within particular contexts 	<ul style="list-style-type: none"> • Meets the needs of students

9. Productive Pedagogies:

Intellectual Quality	Supportive Classroom Environment	Recognition of Difference	Connectedness
<ul style="list-style-type: none"> • Substantive conversation • Knowledge as problematic 	<ul style="list-style-type: none"> • Social support • Self-regulation 	<ul style="list-style-type: none"> • Inclusivity • Group identity 	<ul style="list-style-type: none"> • Knowledge integration • Connectedness to the world • Background knowledge

10. New Basic (Alternative Curriculum Organiser):

Life Pathways and Social Futures	Multiliteracies and Communications Media	Active Citizenship	Environments and Technologies
<ul style="list-style-type: none"> • Collaborating with peers and others 	<ul style="list-style-type: none"> • Mastering literacy • Making creative judgments and engaging in performance 	<ul style="list-style-type: none"> • Interacting with local and global communities 	<ul style="list-style-type: none"> • Building and sustaining environments

Learning in the Redlands



11. Rich Task (Culminating Activity):

- After further discussion and sharing of knowledge, Teacher encourages students to create other persuasive material about educating the public to help improve the sustainability of all sea creatures, such as leaflets, bookmarks or brochures to compliment their Persuasive Argument Presentation.

12. Suggested Follow-up Activities for Teachers:

- Book a Young Citizens Program (YCP) school activity for your class with a Redland City Council Environmental officer. Ph: 07 3829 8466.
- Invite a guest speaker from Queensland Parks and Wildlife Services to talk to the students about conservation activities in Moreton Bay Marine Park.
- Ask the School Librarian to recommend and provide some resources, to be shared with your class, which will encourage discussions about physical, environmental conditions and the type of wildlife that lives in this area.
- Have a Class Discussion on how working locally to conserve the environment can have immediate effects, ongoing impacts, and also assist in similar global campaigns.
- Complete other Educational from Redland City Council.

13. Resources:

a) Useful Links: Redland City Council

<http://www.redland.qld.gov.au/Corp/>. Redland City Council has an excellent web site which provides information on topics this area, including environment, animals, demographics, history and places of interest.

Redland City Council – Young Citizens Program (YCP). Book a school activity/class talk by contacting 07 3829 8466.

<http://www.more2redlands.com.au/more2/Life/Youth/School+program/YCP/>

Redland City Council – ‘More 2 Redlands’ Visitor Information

<http://www.more2redlands.com.au/more2/>. This web page provides information on weather, wildlife, environment and other useful topics.

Environmental Protection Agency

http://www.epa.qld.gov.au/parks_and_forests/marine_parks/moreton_bay/. This is an excellent source of information about Moreton Bay Marine Park, its environment, and what is being done to help protect it and its marine inhabitants.

http://www.epa.qld.gov.au/media/parks_and_forests/mbzonemap.pdf is a poster style map of Marine Park, with information about laws in force to protect the marine wildlife of the Park.

Australian Marine Conservation Society

http://www.amcs.org.au/default2.asp?active_page_id=139. This web site provides information about the environment and habitats of Moreton Bay Marine Park, including Fact Sheets about some of its marine wildlife.

Redlands Tourism

<http://www.redlandstourism.com/redlands/info.asp.93.html>. These web pages provide historical and present day information about the environment and facilities available on each of the Bay Islands. Link to information on Coochiemudlo Island.

Learning in the Redlands



14. Sources:

Queensland School Curriculum Council. (2000). *Studies of Society and the Environment Years 1 to 10 Syllabus*. Brisbane.

Queensland School Curriculum Council. (1998). *The Arts Years 1 to 10 Syllabus*. Brisbane.

Queensland Studies Authority. (2003). *English (draft) Years 1 to 10 Syllabus*. Brisbane.

Queensland Studies Authority. (2004). *Mathematics Years 1 to 10 Syllabus*. Brisbane.

These Educational Activities were compiled by Dr J.D.G. Goldman ACM, Faculty of Education, Griffith University, Australia.

15. Anticipated Student Responses:

Step 1	Teacher leads the discussion using the questions provided, and encourages students to answer and discuss them with the class. In response to these questions, and given that all students should have experienced living in South East Queensland, students should be able to respond well with a variety of answers.
Step 2	In groups of four, students Choose a marine animal that inhabits Moreton Bay to research. Their research includes details about its habitat, threats to its existence, population figures, and what people are doing to help sustain the population.
Step 3	Students use their research findings to create a Persuasive Argument Presentation using PowerPoint (or other appropriate programme), which illustrates their findings, and suggests ways in which students can help to ensure the species' future.
Step 4	Student plan, rehearse and present their Persuasive Argument Presentation to the Grade 4/5s. Students ask someone to video their presentation.
Step 5	Students self-evaluate their participation in this activity on the Student Self-Evaluation Sheet, and submit it to their teacher.
Step 6	Teacher completes the Teacher Assessment Criterion Grid Rubric for each group of students.

Learning in the Redlands



Teacher Sheet 1

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN USE.

What can we do to help the Marine Animals of Moreton Bay Marine Park?

Teacher-directed, class discussion in preparation for the Activity Sheet 1 and is also follow up after the excursion in lesson 2. Teachers scaffold students where necessary by asking questions and directing the whole class discussion.

Orientation:

Teacher leads the questioning and discussion about the students' recent excursion to Coochiemudlo Island.

1. Who can tell me some of the interesting things that you saw on our excursion to Coochiemudlo Island?
2. What did you find interesting about that?
3. Why did you find it interesting?
4. What type of marine animals did you see on the Excursion?
5. What types of threats to these marine animals did you find using your Pollution Audit Table?
6. Why do you think that is a threat?
7. Did you see anything that is being done to help reduce this threat?

ENHANCING:

Teacher continues to lead the whole class discussion about the wildlife of Moreton Bay Marine Park using the pictures (Teacher may put these on OHTs) on the following 3 pages.

1. Look at this picture (on page 8). What is this picture of? (Dugong) Who can write the word on the whiteboard?
2. What does this marine animal look like? (Dolphin/cow – the Dugong is sometimes called the Sea Cow)
3. What do you think this marine animal eats?
4. Can anyone tell me why this marine animal lives in the Moreton Bay?
5. What types of threats might the Dugong face in Moreton Bay Marine Park? (Pollution, litter, fish nets, boat engines, loss of habitat/seagrass meadows etc.)
6. How might these marine animals be protected from these threats? (Fines for littering, speeding in boats, stop the use of fish nets in certain areas, etc.)
7. Look at this next picture (on page 9). What is this picture of? (Turtle) Who can write the word on the whiteboard?
8. What do you think this marine animal eats?
9. Can anyone tell me why this marine animal lives in the Moreton Bay?
10. What types of threats might this marine animal face in Moreton Bay Marine Park? (Pollution, fish nets, boat engines, etc.)
11. How might these marine animals be protected from these threats? (Fines for littering, improved land use to ensure sustainability of sea grass meadows – the survival of the dugong is closely related to our land based activities, speeding in boats, stop the use of fishnets in certain areas, etc.)

continued...

Learning in the Redlands



Teacher Sheet 1

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN USE.

What can we do to help the Marine Animals of Moreton Bay Marine Park?

Enhancing (continued):

12. Look at this next picture (on page 10). *What* is this picture of? (Grey Nurse Shark) Who can write these words on the whiteboard?
13. *What* do you think this marine animal eats?
14. Can anyone tell me *why* this marine animal lives in the Moreton Bay?
15. What types of *threats* might this marine animal face in Moreton Bay Marine Park? (Pollution, fish nets, boat engines, humans hunting and killing this marine animal, etc.)
16. *How* might these marine animals be protected from these threats? (Fines for littering, speeding in boats, stop the use of fishnets in certain areas, etc.)

SYNTHESIS:

Teacher helps students develop a synthesis (a combination) of what they have just learned.

1. Who can tell me what we have *learned today* about Moreton Bay Marine Park and some of its inhabitants?
2. Who can tell me some *names and interesting facts* about this Marine Park? *Why* is that interesting?
3. *What* are the 3 types of marine wildlife that live in Moreton Bay Marine Park that we have talked about today?
4. *What* are some of the threats to these animals' existence in this Marine Park? Students create another list of threats to the Dugong, Turtle and Grey Nurse Shark.
5. Students then create a Venn diagram, which illustrates the similarities and differences between the threats faced by each species.
6. Who can tell us a summary of the important things that we have learned today?

Learning in the Redlands



Teacher Sheet 2

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN AND STUDENTS' USE.

What can we do to help the Marine Animals of Moreton Bay Marine Park?



(Source: <http://www.leisurevest.com/>)

Learning in the Redlands



Teacher Sheet 3

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN AND STUDENTS' USE.

**What can we do to help the Marine Animals of Moreton Bay
Marine Park?**



(Source: <http://www.lets-go-hawaii.com/>)

Learning in the Redlands



Teacher Sheet 4

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN AND STUDENTS' USE.

What can we do to help the Marine Animals of Moreton Bay Marine Park?



(<http://www.ngsednet.org/>)

Learning in the Redlands



Teacher Activity Sheet

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN AND STUDENTS' USE.

What can we do to help the Marine Animals of Moreton Bay Marine Park?

Class: _____ Date: _____

Group Names: _____

Persuasive Argument Presentation on “What can We do to Help the Marine Animals of Moreton Bay Marine Park?”

1. Teacher leads the questioning and class discussion on Moreton Bay Marine Park, its marine animals, and the threats to their existence. Use Teacher's Sheets 1 to 4 inclusive.
2. **Students:** In groups of four students, research any marine animal that lives in Moreton Bay Marine Park. Use materials and resources from your excursion to Coochiemudlo Island, the Internet and books from the library.
3. From your research, plan, rehearse and present a Persuasive Argument Presentation on PowerPoint about what all people can do to ensure the future of your chosen marine animal. Your Presentation should include information about the marine animal's habitat (where it lives), eating habits, population numbers, interesting facts, what people are doing to help this marine animal, which groups of people are trying to help, and what you and your audience can do also.
4. Carefully plan, rehearse and revise your presentation. Present it to the other Grade 4/5 classes. Ask someone to video your presentation.
5. Complete your own Self- Evaluation Sheet below, and hand it to your teacher.
6. Teacher completes the Teacher Assessment Criterion Grid Rubric for each group of students.

Learning in the Redlands



Student Self-Evaluation Sheet

Lesson 3

Grade 4/5

TEACHERS MAY PRINT THIS PAGE FOR THEIR OWN AND STUDENTS' USE.

What can we do to help the Marine Animals of Moreton Bay Marine Park?

Name: _____ Class: _____ Date: _____

1. What did I do well in this activity? _____

2. What could I do better next time? _____

3. What part of the activity did I find interesting? _____

4. What did I find was the most difficult part of the activity? _____

5. Self-assess my work on this scale. Circle my mark out of 10.

1 2 3 4 5 6 7 8 9 10

6. Write 3 reasons why I gave myself that mark.

a) _____

b) _____

c) _____

7. In my future learning I think I should try harder to; (please tick)

- listen more carefully
- communicate more clearly
- participate in all tasks
- contribute to class and group discussions
- concentrate for longer periods
- be polite to other students and my teacher
- develop my abilities as a learner

Source: Marsh, C.J. (2005). Teaching Studies of Society and Environment. Frenchs Forest, Pearson Education.

Learning in the Redlands



Teachers Assessment Criterion Grid Rubric

Lesson 3

Grade 4/5

TEACHERS SHOULD PRINT THIS PAGE FOR EACH STUDENT GROUP'S ASSESSMENT.

What can we do to help the Marine Animals of Moreton Bay Marine Park?

Names: _____ Class: _____ Date: _____

	Very High Achievement	Achievement High	Achievement Sound	Achievement Limited	Achievement Very Limited
A) Research	<ul style="list-style-type: none"> ⌚ Very high level of research including note taking. ⌚ Very high use of multiple sources e.g. Web, Books, and Librarian. 	<ul style="list-style-type: none"> ⌚ High level of research including note taking. ⌚ High use of multiple sources e.g. Web, Books, and Librarian. 	<ul style="list-style-type: none"> ⌚ Sound level of research including note taking. ⌚ Sound use of multiple sources e.g. Web, Books, and Librarian. 	<ul style="list-style-type: none"> ⌚ Limited level of research including note taking. ⌚ Limited use of multiple sources e.g. Web, Books, and Librarian. 	<ul style="list-style-type: none"> ⌚ Very limited level of research including note taking. ⌚ Very limited use of multiple sources e.g. Web, Books, and Librarian.
B) Class discussion comprehension.	<ul style="list-style-type: none"> ⌚ Very high overall comprehension of the suitability of Moreton Bay Marine Park to the lives of marine wildlife. ⌚ Very high overall comprehension of the threats to the dugong. ⌚ Very high overall comprehension of the threats to Turtles. ⌚ Very high overall comprehension of the threats to the Grey Nurse Shark. 	<ul style="list-style-type: none"> ⌚ High overall comprehension of the suitability of Moreton Bay Marine Park to the lives of marine wildlife.. ⌚ High overall comprehension of the threats to the dugong. ⌚ High overall comprehension of the threats to Turtles. ⌚ High overall comprehension of the threats to the Grey Nurse Shark. 	<ul style="list-style-type: none"> ⌚ Sound overall comprehension of the suitability of Moreton Bay Marine Park to the lives of marine wildlife. ⌚ Sound overall comprehension of the threats to the dugong. ⌚ Sound overall comprehension of the threats to Turtles. ⌚ Sound overall comprehension of the threats to the Grey Nurse Shark. 	<ul style="list-style-type: none"> ⌚ Limited overall comprehension of the suitability of Moreton Bay Marine Park to the lives of marine wildlife. ⌚ Limited overall comprehension of the threats to the dugong. ⌚ Limited overall comprehension of the threats to Turtles. ⌚ Limited overall comprehension of the threats to the Grey Nurse Shark. 	<ul style="list-style-type: none"> ⌚ Very Limited overall comprehension of the suitability of Moreton Bay Marine Park to the lives of marine wildlife. ⌚ Very Limited overall comprehension of the threats to the dugong. ⌚ Very limited overall comprehension of the threats to Turtles. ⌚ Very limited overall comprehension of the threats to the Grey Nurse Shark.
c) Participation in the pollution audit table	<ul style="list-style-type: none"> ⌚ Very high level of contribution to information included in the PowerPoint presentation. ⌚ Very high level of participation in layout and design of the PowerPoint presentation. ⌚ Very high use if intonation in speech to persuade audience. ⌚ Very high use of external materials (such as posters, models, diagrams, charts) to complement persuasive argument. 	<ul style="list-style-type: none"> ⌚ High level of contribution to information included in the PowerPoint presentation. ⌚ High level of participation in layout and design of the PowerPoint presentation. ⌚ High use if intonation in speech to persuade audience. ⌚ High use of external materials (such as posters, models, diagrams, charts) to complement persuasive argument 	<ul style="list-style-type: none"> ⌚ Sound level of contribution to information included in the PowerPoint presentation. ⌚ Sound level of participation in layout and design of the PowerPoint presentation. ⌚ Sound use if intonation in speech to persuade audience. ⌚ Sound use of external materials (such as posters, models, diagrams, charts) to complement persuasive argument 	<ul style="list-style-type: none"> ⌚ Limited level of contribution to information included in the PowerPoint presentation. ⌚ Limited level of participation in layout and design of the PowerPoint presentation. ⌚ Limited use if intonation in speech to persuade audience. ⌚ Limited use of external materials (such as posters, models, diagrams, charts) to complement persuasive argument 	<ul style="list-style-type: none"> ⌚ Very limited level of contribution to information included in the PowerPoint presentation. ⌚ Very limited level of participation in layout and design of the PowerPoint presentation. ⌚ Very limited use if intonation in speech to persuade audience. ⌚ Very limited use of external materials (such as posters, models, diagrams, charts) to complement persuasive argument

Teacher's Comments:
