

Unit Plan

Subject: English and Science	Unit Title: Threats to the Great Barrier Reef and Persuasive Texts	Year level(s): Grade 6	Duration of unit: 6 weeks
Curriculum Content Descriptions		Curriculum Outcomes	School & Class Context
<p>English Content Descriptions: (ACARA)</p> <p>ACELA1518 Understand how authors often innovate on text structures and play with language features to achieve particular aesthetic, humorous and persuasive purposes and effects.</p> <p>ACELA1524 Identify and explain how analytical images like figures, tables, diagrams, maps and graphs contribute to our understanding of verbal information in factual and persuasive texts.</p> <p>ACELY1708 Compare texts including media texts that represent ideas and events in different ways, explaining the effects of the different approaches.</p> <p>ACELY1713 Use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts</p> <p>ACELY1714 Plan, draft and publish imaginative, informative and persuasive texts, choosing and experimenting with text structures, language features, images and digital resources appropriate to purpose and audience</p> <p>Science Content Descriptions: (ACARA)</p> <p>ACSSU094 The growth and survival of living things are affected by physical conditions of their environment</p> <p>ACSHE100 Scientific knowledge is used to solve problems and inform personal and community decisions</p>		<p>By the end of this unit, students understand the different threats to the Great Barrier Reef and possible solutions and produce a persuasive text on this topic. Students will work individually, in pairs, and in groups throughout the unit and present work using different modes.</p> <p>The cross-curriculum priorities of Aboriginal and Torres Strait Islander Histories and Cultures and Sustainability will be included in the unit.</p> <p>General capabilities of Literacy, ICT, Intercultural Understanding, and Critical and Creative Thinking will be included in the unit.</p>	<p>The school is a K-6 State Primary School located in Cairns, North Queensland. There are 28 students in the class, 16 boys and 12 girls. Three students identify as Aboriginal and Torres Strait Islander, 2 students are EAL/D, and one student has been diagnosed with ADHD.</p>
Assessment	Literacy Frameworks		
<p>See summative assessment task sheet above.</p>	<p>Multiliteracies framework – situated practice, critical framing, overt instruction.</p> <p>Four Resources Model – The students are code breakers, text participants, text users, and text analysts.</p> <p>5E model for science</p> <p>Gradual Release of Responsibility in the lesson plans for teaching explicit concepts.</p>		

Sequence learning activities

Learning experiences and teaching strategies

Adjustments for needs of learners

Resources

Week 1 - Engage. Week one focus – The Great Barrier Reef. What do we know about it? What do we want to learn? How might we do that? This first week will be activating students' prior knowledge on the topic and generating excitement around the reef and for the excursion in week 4. This will be done through a range of media and multimodal texts.

- The teacher will show a BTN video at the start of the first lesson and ask the students what they think this unit will be about. Teacher led questions will lead to the answer – this unit is about threats to the Great Barrier Reef and solutions for them.
- The teacher will have a novelty giant cheque made out for \$1,000,000. This will be pinned to the board to hook the students' interest – then the summative assessment task sheet will be discussed.
- The class will create a KWL chart and fill in what they know and want to know about the reef. At the end of the week they can add what they have learned.
- Show and Tell – students can share a photo or a story of when they have been to the reef or what the reef means to them. Each student will write up their own experience and the texts, photos, and illustrations will be displayed in a 'what the Great Barrier Reef means to us' poster. This exercise will create meaning for the students and a connection for the learning.
- Vocab focus – teacher will use the [Frayer model](#) to introduce new vocabulary. Students will create a Great Barrier Reef word wall and glossary for new vocabulary – this will be added to as the unit progresses.
- Students will read a text about the Great Barrier Reef and highlight the facts, details, and evidence. The teacher will model this for the students and do the first paragraph of the text for the class. Scaffolded instruction so that the students can then work with a partner on the subsequent paragraphs.
- Students will start a Great Barrier Reef science journal – this can be online or in a notebook. This will contain notes, reflections, observations, drawings, and worksheets that they complete, and they will have opportunities throughout the unit to add to this.
- A Great Barrier Reef Kahoot will quiz the students on the facts they have learned this week. (Formative assessment)

- For the show and tell students can use multiple means of representation – they can present to the class or show a video or make a poster.
- Videos will be subtitled and also available with a transcript that is translated for EAL/D students.
- The Great Barrier Reef texts are differentiated – there are 3 levels of text for different reading levels.
- Students can choose their own medium for the science journal – written or digital. EAL/D students will be encouraged to make notes in their home language.
- Extra time will be given on the Kahoot quiz for EAL/D students if needed

[BTN Video – Great Barrier Reef Problems](#)

Novelty \$1,000,000 cheque

KWL chart template

[Differentiated texts on the Great Barrier Reef](#)

Great Barrier Reef Kahoot quiz.

Frayer Model worksheet

Assessment task sheets and rubrics for students

<p>Week 2 - Explore. Week two focus – what are the threats to the Great Barrier Reef and the solutions? Within this topic students will begin to investigate persuasive texts.</p> <ul style="list-style-type: none"> - Teacher shares text from the Fight for Our Reef website. In a previous unit the class looked in detail at features of persuasive texts and made posters which are on the wall. Teacher has made a checklist of these features - the students receive as a worksheet. Class read the text together and identify persuasive features on their checklist. (This list is kept for use when writing the summative assessment piece to self-assess their own writing features.) -The class will be inferring knowledge from different persuasive texts (see reading lesson below for more detail) - Watch a Youtube video from the GBRMPA on threats to the reef. Students will take notes in a graphic organiser. What are the main threats and any solutions they can see? After video - class brainstorm to share ideas – teacher writes on the whiteboard. - From the identified threats the class will be split into pre-arranged mixed ability/skills groups of 4 students. The groups will be given the collaborative task - choose a threat and persuade the teacher why their threat is the most important. Each group will have the roles of manager, scribe, researcher, and speaker and their tasks will be clearly defined. The groups will make a short presentation. They will have a graphic organiser which will clearly lay out what they need to include; what is their threat, what solution do they propose, why is their threat the most important? They can use laptops to research and create a multimodal presentation – they can include text, images, videos, music etc. <p>Formative assessment – observation, presentation, group work evaluation sheet.</p>	<ul style="list-style-type: none"> - Use whole-part-whole framework for texts – supports ADHD learners as well as wider cohort. - Visual cues and reminders for students – posters on walls - Teacher will place students in groups strategically for best peer support and collaboration. - Students can take on group roles that highlight their skills. - Youtube video with subtitles and transcript translated. 	<ul style="list-style-type: none"> -Text from the Fight for our Reef website -Persuasive text posters from previous unit -Persuasive text checklist -GBRMPA reef threat video -Graphic organiser for threats and solutions -Graphic organiser for group task - Group work evaluation sheet
<p>Week 3 - Explain: Week three focus will be the cultural significance of the Great Barrier Reef and writing in TEEL paragraphs.</p> <ul style="list-style-type: none"> - The teacher will show the video of a local Gimuy young person talking about the Great Barrier Reef. Class discussion to see what the students already know about First Nations' connection to the reef. The teacher will ask questions to guide the conversation and students will share their knowledge. -Explicit teaching of TEEL paragraph – this has been taught previously so the teacher will check prior learning and understanding and remind students of Topic, Evidence, Elaboration, and Link elements. -Writing Lesson below: The class will be asked if Indigenous people were scientists – how do we know? The teacher will have a transcript of an article – the paragraphs on the first ecologists and plastics and carbon emissions will be used. The first paragraph will be read as a class and we will highlight the TEEL elements. Can we improve it? What can we add, remove, or edit? Teacher will lead a shared rewrite. After we are happy with the result the students will work in pairs to analyse, edit, and rewrite the second paragraph using a TEEL graphic organiser. - Students will be given 15 minutes to research online how the reef was created. They can work alone or in pairs. Scaffolded research - students will be encouraged to skim and scan websites for relevance and reliability initially modelled by the teacher on the digital whiteboard. Half of the room will find the Aboriginal and Torres Strait Islander perspective of how the reef was created and the others will find the scientific explanation. They will take notes on what they find. Findings will be shared in a class discussion – what are the similarities? What did First Nations people do to protect the reef that isn't happening now? - The class will be shown this YouTube video on Sea Country. There is an Indigenous ranger talk on the boat on the Reef Trip next week – the students need to write a question that they would like to ask them. Make some predictions on what the ranger might talk about. <p>Formative assessment – students will individually highlight in 4 colours the TEEL elements of a paragraph. Students will be given an exit ticket asking them to write 3 threats to the reef.</p>	<ul style="list-style-type: none"> - Indigenous students are invited to share their knowledge during this week of learning - Apply 8 Ways methods during this week – sharing stories and deconstruct/reconstruct methods. - Find Indigenous vocabulary, place names for the content and include a glossary for all students. - Vary task expectations – higher levels of texts for fast finishers, simpler texts for students who need support. - Ensure all students have the opportunity to join the discussion at their own level 	<ul style="list-style-type: none"> -Youtube video of Gimuy local - TEEL paragraph poster - Aboriginals as First Scientist article transcript - TEEL graphic organiser. - YouTube video on Sea Country - Graphic organiser for predictions and ranger questions - TEEL paragraph

Sequence learning activities			
	Learning experiences and teaching strategies	Adjustments for needs of learners	Resources
	Week 4 - Elaborate : Full-day excursion to the Great Barrier Reef.		
	<p>Week 5 – Elaborate: – Week 4 focus will be collating and connecting all the information learned in classroom and on excursion. There will also be a guest visit from GBR Legacy who will do a ‘Reef in a Box’ presentation and have activities for the students.</p> <ul style="list-style-type: none"> - Lesson one this week will be sharing our photo reel and stories from the reef trip. The class will have a discussion on the power of images and what they can convey. Think about which ones we could include in our report. - There was an activity book given on the day which will also be completed. This included a reef vocabulary wordsearch and cloze text as well as areas where students had to make notes of what they saw on the day and what they learned from the ranger talks. - Practice TEEL paragraph writing – with their notes from the workbook they will write a TEEL paragraph on one aspect of the day. The teacher will model this again for the students with their own example then students will have a go individually. When finished the paragraphs and images will be collated into a digital book to celebrate ‘our day on the reef’ to share with parents and carers. - Persuasive text practice – Use an image from the reef trip to make a digital postcard to a friend or relative on why they MUST visit the reef – use at least 5 techniques from our persuasive text features checklist. <p>GBR Legacy Talk - One of the activities will be to label a diagram of the Great Barrier Reef with the words we have on our word wall. What new vocabulary have we learned? Also looking at the GBR Legacy website and seeing how they have used imagery and scientific diagrams for effect.</p> <p>Formative assessment – TEEL paragraph above, observation, postcard.</p>	<ul style="list-style-type: none"> - Smaller tasks for students who need extra support – give more time and reduce load - Great Barrier Reef booklet is differentiated with different levels of tasks - Vocab and glossary available for EAL/D students - Varied level of support from teacher for writing. - EAL/D students have access to ICT for writing to help with translation or speech to text. 	<ul style="list-style-type: none"> - Great Barrier Reef activity booklet from excursion - TEEL paragraph template - Persuasive text checklist - Diagram of Great Barrier Reef
	<p>Week 6 – Evaluate: Week 5 focus will be on writing and editing the summative assessment.</p> <ul style="list-style-type: none"> - Students will be given time to write their persuasive texts for the summative assessment. They are given a printed graphic organiser with the TEEL layout and will have one A4 piece of paper per paragraph. This is where they can draft their ideas and get teacher feedback. - Students will have the teacher available for support during writing - Students will have checklists available to support their writing – the persuasive checklist and an editing checklist. They will be encouraged to use techniques they have learned previously to edit their work – peer and self-evaluation and reading aloud. - Students will email the completed report to the teacher. 	<ul style="list-style-type: none"> - Allow lots of time and space for questions – get students to repeat instructions so all know what the assessment task requires. 	<ul style="list-style-type: none"> - Summative assessment TEEL template - Persuasive checklist - Editing checklist

Lesson Plan 1 – English and Science – TEEL Paragraphs

Lesson: Writing

Year Level/s: 6 **Date:** 20/08/2023 **Duration:** 50 minutes

Science Question: Were Aboriginal and Torres Strait Islander People the first scientists?

Curriculum Links

- [ACELY1714](#) Plan, draft and **publish** imaginative, **informative** and persuasive texts, choosing and experimenting with **text structures**, language features, images and digital resources appropriate to purpose and audience
- [ACSH100](#) Scientific knowledge is used to solve problems and inform personal and community decisions
- Literacy as a General Capability – text knowledge, grammar knowledge, word knowledge
- Aboriginal and Torres Strait Islander Histories and Cultures & Sustainability
- Intercultural Understanding, Critical and Creative Thinking

Lesson Objectives:

- By the end of the lesson students will understand how Aboriginal and Torres Strait Islander people use their traditional knowledge to solve modern science problems
- By the end of the lesson students will be able to analyse and edit text paragraphs against the TEEL format.

Prior Knowledge:

- The students will have learnt what the Great Barrier Reef is, basic facts and figures and its importance in their lives. They will also understand it is under threat and different groups are working on solutions.
- There is a TEEL poster on the wall, and this is a concept students have worked on throughout the year.
- The teacher will introduce prior knowledge in the introduction to activate this prior learning for the lesson.
- Diagnostic assessment will be used through teacher questioning and discussions to ascertain student strengths, weaknesses, and misconceptions.
- Local content will be used to make connections to students' lives and foster motivation and engagement.

Formative/Summative Assessment:

- Diagnostic assessment – teacher questioning at start of lesson
- The lesson includes practice of techniques needed for the summative assessment.
- Formative assessment individual – worksheet – students are asked to highlight TEEL features of a paragraph.
- Formative assessment group – rewriting of a paragraph in TEEL format
- Teacher feedback for group work will be given during the lesson and as students work.

<p>Introduction: 10 minutes.</p> <ul style="list-style-type: none"> • Students will be asked what they can recall from the video of the Gimuy young man we watched in the previous lesson. The teacher will guide the class discussion to highlight the theme of this lesson – Indigenous people as scientists. • The goals of the lesson written on the board – by the end of the lesson we will understand that Aboriginal and Torres Strait Islander people have their own scientific ways of protecting the reef. We will be able to construct a TEEL paragraph on this topic. • Show the video of the news report filmed locally in Cairns on how Indigenous rangers are working with scientists on the reef. Ask the class if they recognised any of the places in the video. What things did they know and what was new information? 	<p>Assessment, Resources and Literacy Components</p> <ul style="list-style-type: none"> • Diagnostic assessment – checking student prior knowledge. • Multiliteracies – showing video filmed in students’ home town • Situated practice – engage students and connect learning • Clear lesson goals 	<p>Grouping and catering for Diversity</p> <ul style="list-style-type: none"> • Whole group discussion for inclusion • Students share knowledge, ideas and experiences • Vocabulary will be displayed
<p>Lesson Body: 30 minutes</p> <ul style="list-style-type: none"> • The teacher will display a paragraph of text on the board about The First Ecologists which will be read out for the class. (I do) • The teacher will ask some comprehension questions to make sure that the students understand what the text is about. (We do) • The teacher will then show the TEEL paragraph poster that we worked with last term and will explicitly explain the components to activate prior learning (I do) • Teacher will return to the First Ecologist text and highlight the TEEL components for the class. The teacher will analyse whether it is a good example and offer suggestions to improve it (I do) • The teacher will put the next paragraph on the board and the class will go through the same process together with the teacher. (We do) • The students will be given a paragraph to work on with a partner. They will go through the process together to rewrite the paragraph in TEEL format. Deconstruct and then reconstruct. • The teacher will leave the paragraph that they edited on the board as an exemplar. • The students will share their paragraphs on the whiteboard and the rest of the class will identify the TEEL components. 	<ul style="list-style-type: none"> • Four Resource Model – code breaker – understanding the structure. Text participant – making meaning from the text. Text user – what is the role of the text. • Overt instruction – explicit modelled teaching of the format. • Gradual Release of Responsibility for new concept • Ongoing assessment through teacher observations and continual feedback on students’ work. • Whole-part-whole used for text analysing 	<ul style="list-style-type: none"> • Teacher will read out text and visually display it for visual/auditory learners • Tasks are chunked to hold attention • Teacher will provide stretching breaks between activities so students can move • Teacher will model what is expected from the students • Expectations and lesson goals are clearly explained, repeated, and displayed. • Work in pairs – peer support and mixed ability pairs • Differentiated texts
<p>Conclusion: 10 minutes</p> <ul style="list-style-type: none"> • Can we answer the question ‘Were Aboriginal and Torres Strait Islander People the first scientists?’ Class discussion. How about in modern times? • Show the first 60 seconds of this video on celebrating Indigenous scientists to connect it to the modern day and students’ lives. • Exit ticket – the teacher asks students to identify TEEL aspects of a paragraph on the way out of class. • The teacher will remind the students that TEEL paragraphs are the expectation for the summative assessment and there is a paragraph on the Indigenous significance of the GBR. 		

Lesson Plan 2 – English and Science – Inferred Meaning

Lesson: Reading

Year Level/s:

6

Date:

13/08/23

Duration: 60 minutes

Science Question: What are the main threats to the Great Barrier Reef?

Curriculum Links

- [ACSSU094](#) The growth and survival of living things are affected by physical conditions of their environment
- [ACELY1713](#) Use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts
- Skills and Literacy as a General Capability
- Sustainability
- ICT Capability

Lesson Objectives:

- Students will interpret and critically analyse texts by responding to inferred meaning within texts on climate change and the reef.
- By the end of the lesson students will be able to list threats to the Great Barrier Reef.
- Students will understand how to use inference to help them comprehend texts

Prior Knowledge:

- This lesson is in week 2 of the unit and before the students need to do extensive research and writing – the comprehension strategies embedded in the lesson will scaffold them for research tasks.
- The students live near the reef and have had one week of lessons on facts on the reef so have a foundation understanding of the Great Barrier Reef.
- A popular and familiar film will be used to connect to the students' life experiences

Formative/Summative Assessment:

- Diagnostic assessment at start of lesson through teacher questioning
- Ongoing teacher feedback throughout lesson
- Class discussion
- Exit ticket
- Teacher observations
- Peer questioning

<p>Introduction: 10 mins. What is inference?</p> <ul style="list-style-type: none"> • The teacher explains that today we will be using inference to comprehend texts about threats to the Great Barrier Reef. • The students watch a clip from the famous Great Barrier Reef story Finding Nemo. • The teacher first asks if anyone knows what inference means? Then the teacher will ask – how do you think Nemo felt when his dad was telling the joke? The students will answer and the teacher will explain they are using inference from the information they had. • The teacher says now we will practice the skill with the video and then some texts. 	<p>Assessment, Resources and Literacy Components</p> <ul style="list-style-type: none"> • Diagnostic assessment – checking student prior knowledge. • Situated practice – engage students and connect learning • Clear lesson goals 	<p>Grouping and catering for Diversity</p> <ul style="list-style-type: none"> • Whole group discussion to introduce concept – brainstorm • Teacher asks open-ended questions
<p>Lesson Body: 40 minutes</p> <ul style="list-style-type: none"> • The video is shown again and paused throughout for the teacher to ask questions and the students to make inferences. • The teacher will hand out a text to students and will also have it projected onto the whiteboard. It is a short text from a magazine about threats to the Great Barrier Reef. • The teacher will first ask what the students think the text is about, who it is for and where it was published. Class discussion with open ended questions. • The class will then read the text out loud together – the teacher will read some and the students can also volunteer. • The teacher will make a two-column chart on the board with the titles ‘fact’ and ‘inference’ and the teacher will model some answers and write them in. (I do) Then through a class discussion more will be added. (We do) The teacher will keep reminding students that the facts are words we can see in the text and inferences are found from clues from the text. • A new text about threats to the reef will be projected onto the board – an informative science report. The class will again discuss what they think the text is about and where it is from. This time the teacher will write two columns with fact and inference and instruct the students to have a go. First they will think-pair-share with their neighbour to brainstorm ideas. Then the students will write a fact or inference on a slip of paper and come and stick it into the column on the board. (You do) (Formative assessment) • The students who chose to write an inference will be asked to tell the class which words in the text they used as a clue. • The class will be given a card at random – the cards are coloured – red cards have the word ‘Where?’ on them, blue have the word ‘What’ on them and green cards have the word ‘how’ on them. Students go around the room and ask each other questions about the text we have just read. Discuss the answers – are they fact or inference? 	<ul style="list-style-type: none"> • Four Resource Model – code breaker – understanding the structure. Text participant – making meaning from the text. Text user – what is the role of the text. Text analyst – critically analysing texts • Overt instruction – explicit modelled teaching of inference. • Gradual Release of Responsibility for new concept • Ongoing assessment through teacher observations and continual feedback on students’ work. • Multiliteracies – using texts from different sources. • Teacher direct questioning as assessment • Exit tickets for assessment 	<ul style="list-style-type: none"> • The texts will be translated for EAL/D students • Teaching assistant to support higher needs students • Whole class discussion with open-ended questions • All students will be encouraged to participate at their own level in discussions. Questions will be targeted and cognitively appropriate • Overt instruction used with lots of repetition for clarity of tasks • Think-pair-share with different partners – mixed ability for peer support and collaboration • Graphic organisers for visual learners • Use the coloured cards for differentiation – red and blue cards for EAL/D students and green cards for higher level literacy skills. Students find others with same colour cards.

Conclusion:

- The teacher will finish the lesson with another [Finding Nemo clip](#) and ask the students to use what they have learned to make some inferences about the clip.
- Students will share their ideas.
- The teacher will link this to real-life scenarios on how we make inferences often.
- The teacher will instruct the class to use this comprehension technique when conducting research for the summative assessment, and to use the facts we have learned today in the assessment paragraph on threats to the reef.
- Exit ticket to leave the class – whisper to the teacher at the door one threat to the Great Barrier Reef

Lesson Reflection:

Science Report Summative Assessment Task Sheet

Threats to the Great Barrier Reef

Year 6 – Term 3

Name:

Class:



Due Date: 9th September 2023

Word Count: 300 – 500 words (approximately)

Summary: To write a persuasive science report to convince Elon Musk to give you \$1,000,000 for your project to protect the Great Barrier Reef from a major threat.

The report can be typed using Microsoft Word or Canva or handwritten.

Task

Elon Musk has just announced that his next project is to save the Great Barrier Reef. He is donating \$1,000,000 to an individual who has identified a major threat to the reef and has a solution. You need to write a scientific report to Elon to persuade him to donate his money to you. Your report will include the following:



- An introduction to the Great Barrier Reef including important facts.
- The cultural importance of the Great Barrier Reef.
- One major threat to the reef – describe the threat and include research from reliable sources. Choose from climate change, coral bleaching, crown of thorns starfish, land-based run-off, or pollution.
- What is your science-based solution to this threat - what would you spend the money on?
- Conclusion.
- A list of sources

Your persuasive text will include effective language features to convince Elon to give you his money and will be well-researched and evidence-based. You will use information from research and from our field trip to the Great Barrier Reef to complete this task. The report will be written in TEEL paragraphs and will include an image and/or scientific diagram to support and enhance your arguments.