

**Topic:** Habitats in the Gladstone Harbour

**Year Level:** Year 4, 5 and 6

**Key Learning Areas:** Science and Humanities

**Content:**

- Lesson One: Where do we live?
- Lesson Two: Where do I live?
- Lesson Three: There's Grass in the Sea?
- Lesson Four: Pressure & Drivers

LESSON PLANS

LESSON ONE: WHERE DO WE LIVE?		
<b>TOPIC</b>	Habitats - where animals live in the Gladstone Harbour	
<b>OVERVIEW</b>	<b>Seagrass Meadow</b> <b>Mangrove</b> <b>Coral Reef</b> <b>Salt Pan</b> <b>Mudflat</b> <b>Sandy Beach</b>	
<b>TIMING</b>	45 minutes	
TEACHING & LEARNING SEQUENCE	RESOURCES	CROSS CURRICULAR PRIORITIES DIFFERENTIATION
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Define habitat,</li> <li>• Describe the characteristics of habitats in the Gladstone Harbour,</li> <li>• Draw the habitat animals live in in the Gladstone Harbour.</li> </ul> <p><b>Lesson Plan</b></p> <ul style="list-style-type: none"> <li>• Have students brainstorm what a habitat is and create a class definition. Use Resource 1: Habitat Definition to collaboratively brainstorm and discuss the characteristics of a habitat, examples, and non-examples. Students could complete individually, small groups or as a class.</li> </ul>	<p>Resource 1: Habitat Definition                      Resource 2: Common Gladstone Habitats                      Resource 3: Draw my habitat                      Resource 4: Draw the animal</p> <p>GHP Technical Report:</p> <ul style="list-style-type: none"> <li>• Pg23-36 '3.1. Environmental reporting zones'</li> <li>• Pg 51 'What is seagrass'</li> <li>• Pg 59 'Corals'</li> </ul>	<p><b>Differentiation</b></p> <p>Options for defining 'habitat'</p> <ul style="list-style-type: none"> <li>• Provide students with the definition and fill in the remaining quadrants.</li> <li>• Think-pair-share activity building on individual knowledge of what is in a habitat.</li> <li>• Have student write their own definition at the start of the</li> </ul>

<ul style="list-style-type: none"> <li>• Discuss common habitats found in Gladstone. Provide students with an image of each habitat found in the Gladstone Harbour and discuss the common biotic (living) and abiotic (non-living) characteristics (use Resource 2: Gladstone Habitats). Discuss the similarities and differences between the different Gladstone habitats.</li> <li>• Distribute Resource 3: Draw my Habitat to students (either mix up amongst the class or give each student each of the handouts). Have students think about the habitat their animal lives in and draw this habitat around the animal. Describe the key characteristics of the habitat they have drawn. Students could label their drawings or write a paragraph describing the characteristics. Present the drawings to the class and display the drawings in the classroom.</li> </ul> <p><b>Checking for Understanding</b></p> <ul style="list-style-type: none"> <li>• Review the class’s definition of habitat – does it apply to all the Gladstone habitats and drawings?</li> <li>• Ask students to verbally list all the Gladstone habitats, and the biotic and abiotic conditions in each.</li> <li>• Have the students identifies lots of biotic (living) and abiotic (non-living) components in their drawings?</li> <li>• Have students used the knowledge of the definition of a habitat when constructing their habitat in their drawing?</li> </ul>	<p>Gladstone Ports Corporation Local Habitat Fact Sheet  <a href="http://www.gpcl.com.au/big6/Documents/Fact%20Sheet_Summary_Habitats_Final.pdf">http://www.gpcl.com.au/big6/Documents/Fact%20Sheet_Summary_Habitats_Final.pdf</a></p>	<p>lesson and review that definition at the conclusion to create a whole class definition. Students could use a mixture of Resource 3 and 4. Either draw the animal that belongs in the habitat or draw the habitat around the animal. Could also cut and paste the animal onto the habitat.</p>
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**LESSON TWO: WHERE DO I LIVE?**

<b>TOPIC</b>	Habitats - where animals live in the Gladstone Harbour
<b>OVERVIEW</b>	<p>Gladstone Harbour and its associated water bodies and islands provide important habitat, breeding sites and roosting locations for a number of iconic marine species and migratory shorebirds. This includes marine mega fauna such as the dugong and two species of dolphins (Indo-Pacific humpback dolphin: the Indo-Pacific humpback and bottlenose dolphins). Six species of marine turtles have been recorded within the harbour although only the flatback turtle nests annually with most nesting recorded on the south end of Curtis Island. Nesting has been recorded within the harbour for loggerhead and green turtles but not on an annual basis. While hawksbill, olive ridley and leatherback turtles have also been recorded in Gladstone Harbour no nesting has been observed. Up to 20 species of migratory shorebirds have been recorded within the Gladstone Harbour area.</p> <p><b>Dolphins</b>  The Indo-Pacific humpback dolphin <i>Sousa chinensis</i>, the Bottlenose dolphin <i>Tursiops truncatus</i> and the Indo-Pacific (inshore) bottlenose dolphin <i>Tursiops aduncus</i>, have been observed in Gladstone Harbour (DEHP 2014b), The Indo-Pacific humpback dolphin is an EPBC listed migratory species and is listed as near threatened in Queensland under the Nature Conservation Act 1992. Cagnazzi (2013) reported that the Indo-Pacific humpback dolphins in Port Curtis was a distinct sub-population from other populations of this species. Surveys conducted from 2006 to 2008 estimated the Port Curtis population to be 115 individuals. In 2011 the abundance estimate for the Port Curtis sub-population was about 104 dolphins (Cagnazzi 2013).</p> <p><b>Dugongs</b></p>

The dugong *Dugong dugong* is an EPBC act listed marine and migratory species that is listed as vulnerable in Queensland under the Nature Conservation Act 1992. Dugongs are found throughout the western Indo-Pacific region (eastern Africa to eastern Australia) in tropical and subtropical waters. Within the Gladstone Harbour area, including Rodds Bay, dugongs are predominately associated with the seagrass meadows, which form the major component of their diet. A review of the status of the dugong population in the Gladstone area was conducted by Soltzick et al. (2013) as a component of the Ecosystem Research and Monitoring Program currently being undertaken by GPC. This review found that the Port Curtis – Rodds Bay area provides important habitat for a relatively small population of dugongs. They indicated that as these areas overlap with areas of human use that the risk to dugongs from anthropogenic impacts may be substantial. This review also considered the seagrass meadows within the Gladstone area to be of regional significance as they may provide valuable connecting habitat between dugong populations in southern Queensland (Soltzick et al. 2013).

**Marine Turtles**

Six species of marine turtles have been observed in the Port Curtis region. However nesting has only been recorded for three of these species: the loggerhead, green and flatback turtles. Sightings of the other three species are rare. The status of turtles within Gladstone Harbour has also been reviewed as a component of the Ecosystem Research and Monitoring Program currently being undertaken by GPC (Limpus et al. 2013):

- Loggerhead turtle *Caretta caretta*: EPBC status, endangered, marine, and migratory. Within the port limits of Port Curtis, isolated loggerhead turtle nesting has been recorded but not on an annual basis.
- Green turtle *Chelonia mydas*: EPBC status, vulnerable, marine and migratory. Within the port limits of Port Curtis, isolated green turtle nesting has been recorded but not on an annual basis.
- Hawksbill turtle *Eretmochelys imbricata*: EPBC status, vulnerable, marine and migratory. There are no records of this species nesting within a 500km radius of Port Curtis.
- Olive Ridley turtle *Lepidochelys olivacea*: EPBC status, endangered, marine and migratory. There has been no recorded nesting of this species in eastern Australia.
- Flatback turtle *Natator depressus*: EPBC status endangered, marine and migratory. The Flatback Turtles are the dominant species of nesting turtle recorded on the beaches of Port Curtis. Most nesting occurs on the south end of Curtis Island and low density nesting can be expected on seaward beaches within the port limits.
- Leatherback turtle *Dermochelys coriacea*: EPBC status, endangered, marine and migratory leatherback turtles are rarely recorded in the waters of Port Curtis.

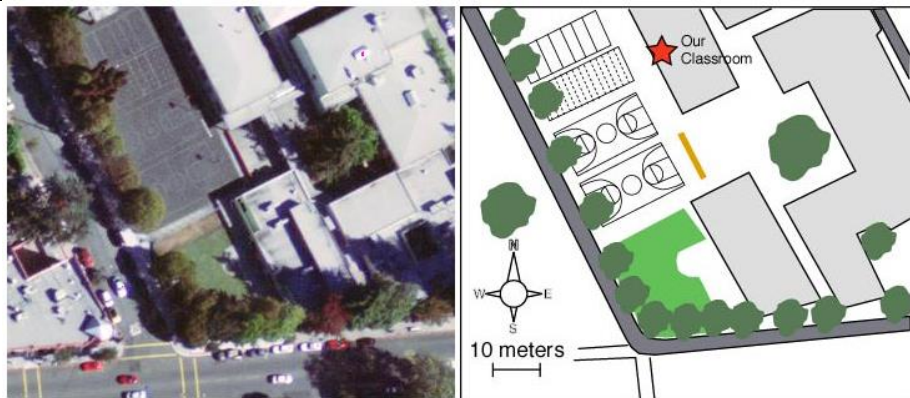
**Migratory Shorebirds**

Migratory shorebirds are EPBC Act listed migratory species. Surveys of migratory shorebirds have been conducted in the Gladstone area since 2011 as a component of the Ecosystem Research and Monitoring Program (ERMP) currently being undertaken by GPC. In shorebird surveys conducted at five locations in the Gladstone area in February 2014, a total of 11,590 migratory shorebirds of 20 species were counted during high tide roost surveys conducted at sites located in the areas of Port Curtis, Fitzroy Estuary, North Curtis, and Mundoolin Inlet/Colosseum Creek. This was a 5% increase over the number of birds recorded in 2013. Variation of this magnitude is well within the magnitude expected for migratory shorebirds (Wildlife Unlimited 2013). During the 2014 high tide roost surveys the greatest number of birds was recorded in the Fitzroy Estuary / North Curtis Island area and the nine most abundant species accounted for 95% of observations. These species were; bar-tailed godwit *Limosa lapponica*, whimbrel *Numenius phaeopus*, eastern curlew *Numenius madagascariensis*, terek sandpiper *Xenus cinereus*, grey-tailed tattler *Tringa brevipes*, great knot *Calidris tenuirostris*, red-necked stint *Calidris ruficollis*, grey plover *Pluvialis squatarola*, lesser sand plover *Charadrius mongolus* and greater sand plover *Charadrius leschenaultia*.

<b>TIMING</b>	45 minutes
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TEACHING & LEARNING SEQUENCE		RESOURCES	CROSS CURRICULAR PRIORITIES DIFFERENTIATION
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>Evaluate animal adaptations and explain why they have these adaptations</li> <li>Determine the habitat an animal lives in from their adaptations</li> </ul> <p><b>Lesson Plan</b></p> <ul style="list-style-type: none"> <li>Divide the class into six groups. Each group is assigned a habitat found in the Gladstone Harbour and an animal found in that habitat (Use Student Resource 4: Habitat Cards and Animal Cards).</li> <li>Students are to prepare four separate A4 sheets of information which include;               <ol style="list-style-type: none"> <li>Name of the animal</li> <li>Description of the animal's physical adaptations,</li> <li>Description of the animal's behavioural adaptations</li> <li>Picture of the animal.</li> </ol> </li> <li>Once each group has completed their sheets of information (remove the original name and habitat cards), mix up all the sheets and give a random one to student. Students need to evaluate the information on their card and find the matching sheets.</li> <li>Once in their new groups evaluate the information and on the basis of the animal's physical and behavioural adaptations, determine which animal belongs in the different habitats.</li> </ul> <p><b>Checking for Understanding</b></p> <ul style="list-style-type: none"> <li>Have students identified common adaptations animals have to live in their chosen habitat?</li> <li>Have the students been able to identify why the animals have these adaptations?</li> <li>Have students discussed the usefulness of the information on the 'new' sheets and if there was enough information for them to identify the habitat the animal belonged to.</li> </ul>		Resource 4: Habitat Cards and Animal Cards	<p><b>Differentiation</b></p> <p>Students can be given information to read and do this or conduct their own research online to produce their information sheets.</p> <p>Rather than giving students the animals they could research their own animal that lives in that habitat.</p> <p>Resource 3 and 4 could also be useful in undertaking this task.</p>
<b>LESSON THREE: THERE'S GRASS IN THE SEA?</b>			
<b>TOPIC</b>	Gladstone Harbour seagrass meadows and monitoring.		
<b>OVERVIEW</b>	Seagrasses are the only flowering plants that can live submerged in the marine environment; and they play an important role in the marine ecosystem. A range of marine species including turtles, dugongs, crabs, sea-cucumbers and some fish species graze on seagrass. There are four families of seagrass in the world. The seagrass indicators in the report card are based on five seagrass species from two of these families: Hydrocharitaceae and Zosteraceae.		

	<p>Seagrass meadows are one of the most important habitat types within Gladstone Harbour. Within the GHHP reporting area, there are 14 monitored seagrass meadows. These are located within six harbour zones: The Narrows, Western Basin, Inner Harbour, Mid Harbour, South Trees Inlet and Rodds Bay. While the area and distribution of the seagrass meadows can vary annually, at peak distribution seagrass meadows in Gladstone Harbour can cover approximately 12,000ha. This area can include intertidal, shallow, subtidal and deep-water habitats. Seagrasses can inhabit various substrata from mud to rock, with the most extensive seagrass beds occurring on soft substrata such as sand and mud. Seagrass meadows provide a range of important ecosystem functions, such as sediment stabilisation, nutrient cycling and carbon sequestration. They can also provide nursery areas for juvenile fish and foraging areas for dugongs, turtles and large fish such as adult barramundi.</p> <p>Seagrasses are highly sensitive to reductions in available light and are susceptible to changes in a range of water quality parameters that effect light penetration. High nutrient levels caused by agricultural or urban run-off can cause algal blooms that shade seagrass. Increases in water turbidity from suspended sediments can reduce seagrass growth and reduce the size and extent of extant seagrass meadows due to a decrease in available light and the effects of sediments settling on seagrass leaves. In Gladstone Harbour, increases in turbidity that may be associated with flooding or dredging can result in deposits of silt on seagrass. The large tidal movements may also result in a significant resuspension of fine sediments (Condie et al., 2015). At a local scale, dredging can impact seagrasses by increasing turbidity, direct removal, burial by dredge spoil and the destabilisation of the seafloor allowing for resuspension of sediments (York &amp; Smith, 2013).</p> <p>Seagrass has been monitored in Gladstone Harbour since 2002 enabling changes in seagrass conditions to be assessed over that period.</p>	
<b>TIMING</b>	2-3 Lessons	
<b>TEACHING &amp; LEARNING SEQUENCE</b>	<b>RESOURCES</b>	<b>CROSS CURRICULAR PRIORITIES DIFFERENTIATION</b>
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Estimate percentage of coverage</li> <li>• Classify using pre-determined definitions</li> </ul> <p><b>Lesson Plan</b></p> <ul style="list-style-type: none"> <li>• Imagine your school is a seagrass meadow in the Gladstone Harbour. You are going to investigate the seagrass at your school and determine the grass coverage, composition, biomass and coverage area using similar methods to how scientists monitor seagrass in the harbour.</li> </ul>	<p>Resource 5: Light Availability Data Collection Sheet</p> <p>GHHP Report Card (Online) Habitat <a href="http://rc.ghhp.org.au/report-cards/2015/environmental">http://rc.ghhp.org.au/report-cards/2015/environmental</a></p> <p>Seagrass Indicators GHHP Report <a href="https://dims.ghhp.org.au/repo/data/public/1c0925.php">https://dims.ghhp.org.au/repo/data/public/1c0925.php</a></p> <p>2016 GHHP Technical Report Pg 45 'What is seagrass'</p>	<p><b>Differentiation</b></p> <p>Students could complete tasks in small groups or as individuals. Students may need support and scaffolding to complete tasks in the school yard.</p> <p>Discuss questions they are answering as a class before they answer them individually.</p>



Building
  Pavement
  Tree  
 Grass
  Art Wall
  Sidewalk

Figure 1 <http://education.usgs.gov/lessons/schoolyard/MapSketch.html>

**Checking for understanding**

- Have the students correctly estimated the percentage of grass coverage?
- Have students graphed their results correctly?
- Have students answered all the questions?

**LESSON FOUR: PRESSURES & DRIVERS**

<b>TOPIC</b>	Pressures and drivers of environmental issues in the Gladstone Harbour.
<b>OVERVIEW</b>	Environmental drivers, threats and pressures of Gladstone Harbour. This conceptual model identifies and provides a clear understanding of how specific drivers, threats and pressures of Gladstone Harbour link to how the harbour functions and their effects on the development of the monitoring and reporting program.
<b>TIMING</b>	45 minutes

**Students will be able to:**

- Read stimulus sheet and respond to a written task.

**Lesson Plan**

- Give students stimulus sheet (Resource 6, 7, and/or 8).
- Give students planning time to read and plan their response.
- Have students write their response.
- Share responses in small groups or read aloud to the class.

**Checking for understanding**

- Have students used correct persuasive techniques in their writing?
- Have students addressed the task they were set?

Resource 6: Persuasive Task – Seafood  
 Resource 7: Persuasive Task – Flooding  
 Resource 8: Persuasive Task – Pressures and threats

2014 GHHP Pilot Report Card (Hard Copy) Figure 2. Environmental drivers, threats and pressures of Gladstone Harbour.

NAPLAN Teacher Advise

**Differentiation**

Recommend:  
 Seafood Task Year 4  
 Flooding Year 5  
 Pressures and threats Year 6

Use NAPLAN Teacher advise if using these as practice writing tasks.

	<a href="https://www.qcaa.qld.edu.au/p-10/naplan/test-preparation/writing2/teacher-advice">https://www.qcaa.qld.edu.au/p-10/naplan/test-preparation/writing2/teacher-advice</a>	
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## Appendix A: Links to Australian Curriculum

The following Science and Humanities content descriptors and inquiry skills have been identified from version 7.5 of the Foundation to Year 10 Australian Curriculum which are suited to the Gladstone Healthy Harbour Partnership Year 4, 5 and 6 curriculum resources.

Australian Curriculum					
<b>SCIENCE</b>					
<b>Science Understanding</b>					
Y	Biological Sciences	Chemical Sciences	Earth & Space Sciences	Physical Sciences	
4	Living things have life cycles (ACSSU072) Living things depend on each other and the environment to survive (ACSSU073)	Natural and processed materials have a range of physical properties that can influence their use (ACSSU074)	Earth's surface changes over time as a result of natural processes and human activity (ACSSU075)		
5	Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)	Solids, liquids and gases have different observable properties and behave in different ways (ACSSU077)			
6	The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)		Sudden geological changes and extreme weather events can affect Earth's surface (ACSSU096)		
<b>Science as a Human Endeavour</b>					
Y	Nature & Development of Science		Use & Influence of Science		
4	Science involves making predictions and describing patterns and relationships (ACSHE061)		Science knowledge helps people to understand the effect of their actions (ACSHE062)		
5	Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE081)		Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE083)		
6	Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE098)		Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100)		
<b>Science Inquiry Skills</b>					
Y	Questioning & Predicting	Planning & Conducting	Processing & Analysing Data & Information	Evaluating	Communicating
4	With guidance, identify questions in familiar contexts that can be investigated scientifically and make predictions based on prior knowledge (AC SIS064)	With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment (AC SIS065) Consider the elements of fair tests and use formal measurements and digital technologies as appropriate, to make and record observations accurately (AC SIS066)	Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends (AC SIS068) Compare results with predictions, suggesting possible reasons for findings (AC SIS216)	Reflect on investigations, including whether a test was fair or not (AC SIS069)	Represent and communicate observations, ideas and findings using formal and informal representations (AC SIS071)
5 & 6	With guidance, pose clarifying questions and make predictions	Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using	Construct and use a range of representations, including tables and graphs, to represent and describe	Reflect on and suggest improvements to scientific investigations (AC SIS091) (AC SIS108)	Communicate ideas, explanations and processes using scientific representations in a variety of ways,



about scientific investigations (AC SIS231) (AC SIS232)	equipment and materials safely and identifying potential risks (AC SIS086) (AC SIS103) Decide variables to be changed and measured in fair tests, and observe measure and record data with accuracy using digital technologies as appropriate (AC SIS087) (AC SIS104)	observations, patterns or relationships in data using digital technologies as appropriate (AC SIS090) (AC SIS107) Compare data with predictions and use as evidence in developing explanations (AC SIS218) (AC SIS221)		including multi-modal texts (AC SIS093) (AC SIS110)
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## HUMANITIES

### Knowledge & Understanding

Y	History	Geography	Civics & Citizenship	Economics & Business
4	The diversity of Australia's first peoples and the long and continuous connection of Aboriginal and Torres Strait Islander Peoples to Country/Place (land, sea, waterways and skies) (ACHASSK083) The nature of contact between Aboriginal and Torres Strait Islander Peoples and others, for example, the Macassans and the Europeans, and the effects of these interactions on, for example, people and environments (ACHASSK086)	The importance of environments, including natural vegetation, to animals and people (ACHASSK088) The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/Place, and how this influences views about sustainability (ACHASSK089) The use and management of natural resources and waste, and the different views on how to do this sustainably (ACHASSK090)	The role of local government and the decisions it makes on behalf of the community (ACHASSK091) The differences between 'rules' and 'laws', why laws are important and how they affect the lives of people, including experiences of Aboriginal and Torres Strait Islander Peoples (ACHASSK092) The different cultural, religious and/or social groups to which they and others in the community belong (ACHASSK093)	
5		The influence of people on the environmental characteristics of places in Europe and North America and the location of their major countries in relation to Australia (ACHASSK111) The influence of people, including Aboriginal and Torres Strait Islander Peoples, on the environmental characteristics of Australian places (ACHASSK112) The environmental and human influences on the location and characteristics of a place and the management of spaces within them (ACHASSK113) The impact of bushfires or floods on environments and communities, and how people can respond (ACHASSK114)	How people with shared beliefs and values work together to achieve a civic goal (ACHASSK118)	The difference between needs and wants and why choices need to be made about how limited resources are used (ACHASSK119) Types of resources (natural, human, capital) and the ways societies use them to satisfy the needs and wants of present and future generations (ACHASSK120)
6		The effects that people's connections with, and proximity to, places throughout the world have on shaping their awareness and opinion of those places (ACHASSK142)	The shared values of Australian citizenship and the formal rights and responsibilities of Australian citizens (ACHASSK147)	The effect that consumer and financial decisions can have on the individual, the broader community and the environment (ACHASSK150) The reasons businesses exist and the different ways they provide goods and services (ACHASSK151)

<b>Inquiry &amp; Skills</b>					
<b>Y</b>	<b>Questioning</b>	<b>Researching</b>	<b>Analysing</b>	<b>Evaluating &amp; Reflecting</b>	<b>Communicating</b>
4	Pose questions to investigate people, events, places and issues (ACHASSI073)	Locate and collect information and data from different sources, including observations (ACHASSI074) Record, sort and represent data and the location of places and their characteristics in different formats, including simple graphs, tables and maps, using discipline-appropriate conventions (ACHASSI075) Sequence information about people's lives and events (ACHASSI076)	Examine information to identify different points of view and distinguish facts from opinions (ACHASSI077) Interpret data and information displayed in different formats, to identify and describe distributions and simple patterns (ACHASSI078)	Draw simple conclusions based on analysis of information and data (ACHASSI079) Interact with others with respect to share points of view (ACHASSI080) Reflect on learning to propose actions in response to an issue or challenge and consider possible effects of proposed actions (ACHASSI081)	Present ideas, findings and conclusions in texts and modes that incorporate digital and non-digital representations and discipline-specific terms (ACHASSI082)
5 & 6	Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges (ACHASSI094) (ACHASSI122)	Locate and collect relevant information and data from primary and secondary sources (ACHASSI095) (ACHASSI123) Organise and represent data in a range of formats including tables, graphs and large- and small-scale maps, using discipline-appropriate conventions (ACHASSI096) (ACHASSI124) Sequence information about people's lives, events, developments and phenomena using a variety of methods including timelines (ACHASSI097) (ACHASSI125)	Examine primary and secondary sources to determine their origin and purpose (ACHASSI098) (ACHASSI126) Examine different viewpoints on actions, events, issues and phenomena in the past and present (ACHASSI099) (ACHASSI127) Interpret data and information displayed in a range of formats to identify, describe and compare distributions, patterns and trends, and to infer relationships (ACHASSI100) (ACHASSI128)	Evaluate evidence to draw conclusions (ACHASSI101) (ACHASSI129) Work in groups to generate responses to issues and challenges (ACHASSI102) (ACHASSI130) Use criteria to make decisions and judgements and consider advantages and disadvantages of preferring one decision over others (ACHASSI103) (ACHASSI131) Reflect on learning to propose personal and/or collective action in response to an issue or challenge, and predict the probable effects (ACHASSI104) (ACHASSI132)	Present ideas, findings, viewpoints and conclusions in a range of texts and modes that incorporate source materials, digital and non-digital representations and discipline-specific terms and conventions (ACHASSI105) (ACHASSI133)

### **ACARA General Capabilities**

The Australian Curriculum includes seven general capabilities. These are:

- Literacy
- Numeracy
- Information and communication technology capability
- Critical and creative thinking
- Personal and social capability
- Ethical understanding
- Intercultural understanding.

## ACARA Cross Curriculum Priorities

### **Aboriginal and Torres Strait Islander histories and cultures**

The Aboriginal and Torres Strait Islander histories and cultures priority provides the opportunity for all young Australians to gain a deeper understanding and appreciation of Aboriginal and Torres Strait Islander histories and cultures, deep knowledge traditions and holistic world views. This knowledge and understanding will enrich all learners' ability to participate positively in the ongoing development of Australia through a deepening knowledge and connection with the world's oldest continuous living cultures.

The Aboriginal and Torres Strait Islander histories and cultures priority has been developed around the three key concepts of Country/Place, Peoples and Cultures:

- The first key concept highlights the special connection to Country/Place by Aboriginal and Torres Strait Islander Peoples and celebrates the unique belief systems that connect people physically and spiritually to Country/Place.
- The second key concept examines the diversity of Aboriginal and Torres Strait Islander Peoples' culture through language, ways of life and experiences as expressed through historical, social and political lenses. It provides opportunities for students to gain a deeper understanding of Aboriginal and Torres Strait Islander Peoples' ways of being, knowing, thinking and doing.
- The third key concept addresses the diversity of Aboriginal and Torres Strait Islander societies. It examines kinship structures and the significant contributions of Aboriginal and Torres Strait Islander people on a local, national and global scale.

### **Asia and Australia's engagement with Asia**

The Asia and Australia's engagement with Asia priority provides the opportunity for students to celebrate the social, cultural, political and economic links that connect Australia with Asia. This priority will ensure that students learn about and recognise the diversity within and between the countries of the Asia region. They will develop knowledge and understanding of Asian societies, cultures, beliefs and environments, and the connections between the peoples of Asia, Australia, and the rest of the world. Asia literacy provides students with the skills to communicate and engage with the peoples of Asia so they can effectively live, work and learn in the region.

The Asia and Australia's engagement with Asia priority has been developed around three key concepts; Asia and its diversity, achievements and contributions of the peoples of Asia and Asia-Australia engagement:

- The first key concept highlights the diversity within and between the countries of the Asia region, from their cultures, societies and traditions through to their diverse environments and the effects of these on the lives of people.
- The second key concept examines the past and continuing achievements of the peoples of Asia, identifies their contribution to world history and acknowledges the influences that the Asia region has on the world's aesthetic, and creative pursuits.
- The third key concept addresses the nature of past and ongoing links between Australia and Asia, and develops the knowledge, understanding and skills, which make it possible to engage actively and effectively with peoples of the Asia region.

### **Sustainability**

The Sustainability priority provides the opportunity for students to develop an appreciation of the necessity of acting for a more sustainable future and so address the ongoing capacity of Earth to maintain all life and meet the needs of the present without compromising the needs of future generations.

This priority will allow all young Australians to develop the knowledge, skills, values and world views necessary for them to act in ways that contribute to more sustainable patterns of living. It will enable individuals and communities to reflect on ways of interpreting and engaging with the world. The Sustainability priority is futures-oriented, focusing on protecting environments and creating a more ecologically and socially just world through informed action. Actions that support more sustainable patterns of living require consideration of environmental, social, cultural and economic systems and their interdependence.

The Sustainability priority is futures-oriented and calls on students to act sustainably as individuals and to participate in collective endeavours that are shared across local, regional and global communities. It emphasises the interdependence of environmental, social, cultural and economic systems.

The Sustainability priority has been developed around three key concepts: systems, world views and, futures:

- The first key concept explores the interdependent and dynamic nature of systems that support all life on Earth as well as the promotion of healthy social, economic and ecological patterns of living for our collective wellbeing and survival.
- The second key concept presents the issues surrounding sustainability in a global context. This concept allows for a diversity of world views on ecosystems, values and social justice to be discussed and linked to individual and community actions for sustainability.
- The third key concept is aimed at building the capacities for thinking and acting in ways that are necessary to create a more sustainable future. The concept seeks to develop reflective thinking processes and empower young people to design action that will lead to a more equitable, respectful and sustainable future.

[http://www.acara.edu.au/curriculum/cross\\_curriculum\\_priorities.html](http://www.acara.edu.au/curriculum/cross_curriculum_priorities.html)