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| **Lesson 1. Marine parks: spreading the word**  **General capabilities:** Literacy; Critical and creative thinking; Personal and social capability | |
| **Year 7** | |
| **Subject; content description\*** | **Lesson outcome** |
| **Science** |  |
| **Science Understanding**  **Biological Science**  Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions (ACSSU112)  **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)  **Science Inquiry Skills**  Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate ([ACSIS133)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSIS133) | Students view materials and identify main components of Ningaloo Reef or Shark Bay food webs and consider how human impact affects those.  Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems.  Students present the outcomes of their research into a marine park using effective forms of representation of ideas and scientific language that is appropriate for a specific target audience. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources (ACELY1723)  **Creating texts**  Plan, draft and publish imaginative, informative and persuasive texts, selecting aspects of subject matter and particular language, visual, and audio features to convey information and ideas (ACELY1725) | Students identify messages in a background reading text. Also synthesise main ideas from videos to create their own messages.  Students create a display for a local library using visual and textual resources to convey key messages about marine park management. |
| **Year 8** | |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE135)  **Science Inquiry Skills**  Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate (ACSIS148) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems.  Students present the outcomes of their research into a marine park using effective forms of representation of ideas and scientific language that is appropriate for a specific target audience |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Apply increasing knowledge of vocabulary, text structures and language features to understand the content of texts (ACELY1733)  **Creating texts**  Create imaginative, informative and persuasive texts that raise issues, report events and advance opinions, using deliberate language and textual choices, and including digital elements as appropriate (ACELY1736) | Students identify messages in a background reading text. Also synthesise main ideas from videos to create their own messages.  Students create a display for a local library using visual and textual resources to convey key messages about marine park management. |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The different types of landscapes and their distinctive landform features (ACHGK048)  The ways of protecting significant landscapes (ACHGK052)  **Geographical Inquiry and Skills**  Develop geographically significant questions and plan an inquiry using appropriate geographical methodologies and concepts (ACHGS055)  Present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose, using geographical terminology and digital technologies as appropriate (ACHGS061) | Students recognise the diversity of marine ‘landscapes’ e.g. coral atolls, fringing reef, seagrass meadows.  Students identify the need to preserve significant areas in marine parks.  Students conduct an inquiry into the value of marine parks.  Students present findings in a public display (e.g. in a library). |
| **Year 9** | |
| **Science** |  |
| **Science Understanding**  **Biological science**  Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems (ACSSU176) | Students view materials and identify main components of Ningaloo Reef or Shark Bay ecosystems and consider how human impact affects populations of marine organisms. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Explore and explain the combinations of language and visual choices that authors make to present information, opinions and perspectives in different texts (ACELY1745)  **Creating texts**  Create imaginative, informative and persuasive texts that present a point of view and advance or illustrate arguments, including texts that integrate visual, print and/or audio features (ACELY1746) | Students explore how information is presented video and text to present information and perspectives in relation to marine parks.  Students create a display for a local library using visual and textual resources to convey key messages about marine park management. |
| **Year 10** | |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The human-induced environmental changes that challenge sustainability (ACHGK070)  **Marine environmental change and management**  The application of human-environment systems thinking to understanding the causes and likely consequences of the environmental change being investigated (ACHGK073)  **Geographical Inquiry and Skills**  Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts (ACHGS072)  Present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate (ACHGS079) | Students consider how human activity affects marine biodiversity and the effect on the sustainability of those ecosystems.  Students investigate the nature of changes to the marine environment and the impact on sustainability of those systems.  Students conduct an inquiry into the value of marine parks.  Students present findings in a public display (e.g. in a library) using forms of communication appropriate to the audience and to engage them in issues in managing marine parks. |

\*Source: ACARA, Australian Curriculum

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| **Lesson 2 Multiple uses of marine parks and reserves**  **General capabilities:** Literacy; Critical and creative thinking; Personal and social capability | |
| **Year 7** | |
| **Subject; content description\*** | **Lesson outcome** |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources (ACELY1723) | Students use photographs and text to identify activities in marine parks and how they relate to management zones. |
| **Year 8** | |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE135) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Apply increasing knowledge of vocabulary, text structures and language features to understand the content of texts (ACELY1733) | Students relate their understanding of a text to photographs. |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The different types of landscapes and their distinctive landform features (ACHGK048)  The ways of protecting significant landscapes (ACHGK052) | Students recognise the diversity of marine ‘landscapes’ e.g. coral atolls, fringing reef, seagrass meadows.  Students identify the multiple uses of marine areas and the need for management zones to protect important areas. |
| **Year 10** | |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The human-induced environmental changes that challenge sustainability (ACHGK070)  **Marine environmental change and management**  The application of human-environment systems thinking to understanding the causes and likely consequences of the environmental change being investigated (ACHGK073)  The application of environmental economic and social criteria in evaluating management responses to the change (ACHGK075) | Students consider how human activity affects marine biodiversity and the effect on the sustainability of those ecosystems.  Students investigate the nature of changes to the marine environment and the impact on sustainability of those systems.  Students analyse how management zones in marine parks balance environmental, social and economic criteria and where there can be trade-offs between them. |

\*Source: ACARA, Australian Curriculum

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| **Lesson 3. Have a go: manage a marine park**  **General capabilities:** Literacy; Critical and creative thinking; Personal and social capability; Intercultural understanding | |
| **Year 7** | |
| **Subject; content description\*** | **Lesson outcome** |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources (ACELY1723)  **Interacting with others**  Use interaction skills when discussing and presenting ideas and information, selecting body language, voice qualities and other elements, (for example music and sound) to add interest and meaning (ACELY1804)  Plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements to promote a point of view or enable a new way of seeing (ACELY1720) | Students identify key information for a role play in a decision making scenario.  Students present their ideas through role play at a public meeting,  Students represent their interests at a role play public meeting on future management of a marine park. |
| **Year 8** | |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE135) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems. |
| **English** |  |
| **Literacy**  **Interacting with others**  Interpret the stated and implied meanings in spoken texts, and use evidence to support or challenge different perspectives (ACELY1730)  Use interaction skills for identified purposes, using voice and language conventions to suit different situations, selecting vocabulary, modulating voice and using elements such as music, images and sound for specific effects (ACELY1808) | Students evaluate information and arguments presented in a role play; they present their own perspective based on relevant evidence.  Students present their arguments in a role play to persuade decision makers to accept their point of view on managing the marine park. |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The human causes and effects of landscape degradation (ACHGK051)  The ways of protecting significant landscapes (ACHGK052)  **Geographical Inquiry and Skills**  Develop geographically significant questions and plan an inquiry using appropriate geographical methodologies and concepts (ACHGS055)  Present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose, using geographical terminology and digital technologies as appropriate (ACHGS061) | Students analyse and evaluate the differing types of degradation in a marine environment.  Students identify the need to preserve significant areas in marine parks.  Students conduct background research into criteria for planning zones in marine parks.  Students present arguments in a role play public meeting. |
| **Year 9** | |
| **Science** |  |
| **Science Understanding**  **Biological sciences**  Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems (ACSSU176)  **Science as a Human Endeavour**  People can use scientific knowledge to evaluate whether they should accept claims, explanations or predictions (ACSHE160) | Students consider how key species of commercial or other value to humans are supported by the marine ecosystem.  Students consider human impacts on a marine park ecosystem from a range of different perspectives. Scientists are represented in the role play to present their analysis of those impacts. |
| **English** |  |
| **Literacy**  **Interacting with others**  Listen to spoken texts constructed for different purposes, for example to entertain and to persuade, and analyse how language features of these texts position listeners to respond in particular ways (ACELY1740)  Use interaction skills to present and discuss an idea and to influence and engage an audience by selecting persuasive language, varying voice tone, pitch, and pace, and using elements such as music and sound effects (ACELY1811)  **Interpreting, analysing, evaluating**  Interpret, analyse and evaluate how different perspectives of issue, event, situation, individuals or groups are constructed to serve specific purposes in texts (ACELY1742) | Students listen to arguments presented by others in a role play; they respond accordingly; and may analyse how other presented their arguments.  Students present their arguments in a role play public meeting to persuade others to adopt their views in the final decision.  Students analyse and interpret assumptions of different interest groups represented in role play. |
| **Year 10** | |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The human-induced environmental changes that challenge sustainability (ACHGK070)  **Marine environmental change and management**  The application of human-environment systems thinking to understanding the causes and likely consequences of the environmental change being investigated (ACHGK073)  **Geographical Inquiry and Skills**  Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts (ACHGS072)  Present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate (ACHGS079) | Students consider how human activity affects marine biodiversity and the effect on the sustainability of those ecosystems.  Students evaluate the likely impact of proposed management strategies on a marine ecosystem.  Students conduct background research into criteria for management planning zones in marine parks.  Students present their arguments in a role play public meeting to determine management zones for a marine park. |
| **English** |  |
| **Literacy**  **Interacting with others**  Use organisation patterns, voice and language conventions to present a point of view on a subject, speaking clearly, coherently and with effect, using logic, imagery and rhetorical devices to engage audiences (ACELY1813) | Students present their arguments in a role play public meeting to persuade others to adopt their views in the final decision. |

\*Source: ACARA, Australian Curriculum

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| **Lesson 4. Marine matters**  **General capabilities:** Literacy; Critical and creative thinking | |
| **Year 7** | |
| **Subject; content description\*** | **Lesson outcome** |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources (ACELY1723) | Students identify messages in a background reading text. |
| **Year 8** | |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE135) | Students consider how human activity in the marine environment can have positive and negative effects on the sustainability of those ecosystems. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Apply increasing knowledge of vocabulary, text structures and language features to understand the content of texts (ACELY1733) | Students identify messages in a background reading text. |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The ways of protecting significant landscapes (ACHGK052) | Students identify the need to manage marine debris to protect significant marine areas. |
| **Year 9** | |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Explore and explain the combinations of language and visual choices that authors make to present information, opinions and perspectives in different texts (ACELY1745) | Students explore how information is presented in different texts to present information and perspectives in relation to marine parks. |
| **Year 10** | |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The human-induced environmental changes that challenge sustainability (ACHGK070)  **Marine environmental change and management**  The application of human-environment systems thinking to understanding the causes and likely consequences of the environmental change being investigated (ACHGK073) | Students consider how human activity produces marine debris and its effects on biodiversity and the sustainability of marine ecosystems.  Students investigate the sources of marine debris and its impact on sustainability of marine ecosystems. |

\*Source: ACARA, Australian Curriculum

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| **Lesson 5. Marine surveys: many challenges**  **General capabilities:** Literacy; Critical and creative thinking | |
| **Year 7** | |
| **Subject; content description\*** | **Lesson outcome** |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)  **Science Inquiry Skills**  Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method (ACSIS131) | Students consider how marine research contributes to the issue of managing important marine areas.  Students analyse marine research methods and identify challenges faced in marine research. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources (ACELY1723) | Students synthesise information from background reading texts. |
| **Year 8** | |
| **Science** |  |
| **Science as a Human Endeavour**  Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE135)  **Science Inquiry Skills**  Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method (ACSIS146) | Students consider how marine research contributes to the issue of managing important marine areas.  Students analyse marine research methods and identify challenges faced in marine research. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret and evaluate texts by reflecting on the validity of content and the credibility of sources, including finding evidence in the text for the author’s point of view (ACELY1734) | Students read texts and view video on marine research to comprehend key points. (Teachers can include a discussion on credibility of sources and authors point of view). |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The ways of protecting significant landscapes (ACHGK052)  **Geographical Inquiry and Skills**  Analyse geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends and infer relationships (ACHGS059) | Students identify the importance of research to preserve significant areas in marine parks.  Students analyse approaches to collecting data in marine surveys and identify challenges in collecting that data. |
| **Year 9** | |
| **Science** |  |
| **Science Inquiry Skills**  Critically analyse the validity of information in secondary sources and evaluate the approaches used to solve problems (ACSIS172) | Students research methods used by scientists in marine surveys and assess their validity; also consider the challenges associated with the data collection. |
| **English** |  |
| **Literacy**  **Interpreting, analysing, evaluating**  Use comprehension strategies to interpret and analyse texts, comparing and evaluating representations of an event, issue, situation or character in different texts (ACELY1744) | Students read texts and view video on marine research to comprehend key points. (Teachers can include a discussion on how the issue of marine conservation is represented). |
| **Year 10** | |
| **Geography** |  |
| **Geographical Knowledge and Understanding**  The human-induced environmental changes that challenge sustainability (ACHGK070)  **Marine environmental change and management**  The application of human-environment systems thinking to understanding the causes and likely consequences of the environmental change being investigated (ACHGK073)  **Geographical Inquiry and Skills**  **Interpreting, analysing, concluding**  Apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative points of view (ACHGS068) | Students consider how research into marine environments helps assess human impact on the sustainability of those ecosystems.  Students consider the role of marine surveys in understanding causes and likely consequences of changes in marine ecosystems.  Students consider how data on marine ecosystems is collected and the challenges presented by the marine environment. |

\*Source: ACARA, Australian Curriculum