Sanctuaries and Sea Creatures: Ricketts Point

Teacher Guide

Coastcare Victoria School Kit

Coastcare Victoria

VICTORIA State Government | Energy, Environment and Climate Action

Acknowledgements
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Coastcare Victoria and Ocean Imaging.

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Ocean Imaging.

Acknowledgment

We acknowledge and respect Victorian bunal Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

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Accessibility

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Contents

Curriculum links

Year 5 and 6 curriculum	Curriculum code	Content description	Topic covered – link to Learning Intentions
Science – Science Understanding – Biological sciences	VC2S6U01	Habitats can be described by their physical conditions; changing the physical conditions of a habitat, including by human activity, may affect the growth and survival of organisms	The growth and survival of living things are affected by the physical conditions of their environment. Marine sanctuaries are an effective tool for managing the conserving marine species.
Science – Science Understanding – Biological sciences	VC2S6U02	Organisms have evolved over time, as seen in fossils and scientific records; the structural features and behaviours of living organisms enable them to thrive in their environments	Living things have structural features and adaptations that help them to survive in their environment.
Humanities – Geography – Geographical Knowledge and Understanding – Management of places	VC2HG6K01	How places and environmental are changed and managed by people	Marine sanctuaries are an effective tool for managing the conserving marine species.
Critical and Creative Thinking – Reasoning	VC2CC6R01	Ways to identify, structure and communicate a conclusion justified by a range of reasons	Marine sanctuaries are an effective tool for managing the conserving marine species.
Critical and Creative Thinking – Reasoning	VC2CC6R04	The use of criteria to support analysis and evaluation when reasoning	Marine sanctuaries are an effective tool for managing the conserving marine species.

Year 7 and 8 curriculum	Curriculum code	Content description	Topic covered – link to Learning Intentions
Science – Science Understanding – Biological sciences	VC2S8U01	There are similarities and differences within and between groups of organisms living on Earth; the development and use of classification tools, including dichotomous keys, help order and organise human understanding of the diversity of life	Classification is a useful tool to help organise the diversity of organisms.
Science – Science Understanding – Biological sciences	VC2S8U04	Matter and energy flow through ecosystems and can be represented using models, including food webs and food pyramids; populations will be affected by changing biotic and abiotic factors in an ecosystem including habitat loss, climate change, seasonal migration and introduction or removal of species	The differences between biotic and abiotic factors.
Humanities – Geography – Geographical Knowledge and Understanding – Landforms and landscapes	VC2HG8K15	The human causes of landform change and ways of managing it, including the study of a local landform	Marine sanctuaries are an effective tool for managing the conserving marine species.
Critical and Creative Thinking – Reasoning	VC2CC8R01	Ways to identify, structure and communicate a conclusion and its justification where competing claims, and grounds for claims, are analysed and evaluated	Marine sanctuaries are an effective tool for managing the conserving marine species.

Key themes

Adaptations, habitats, classification, marine sanctuaries.

Lessons overview

Activity	Time	Difficulty	Topic & Skills
1: Marine life bingo	30 min	**Simple**	Rocky shore organisms. • Listening comprehension, observation, recall, species recognition, engagement, and social interaction.
2: Quiz	5 min video 15 min quiz	**Simple**	Urban marine environment, marine sanctuaries, rocky reef habitats, marine organisms, shark migration, seagrass meadows, predator-prey interactions, Great Southern Reef, conservation and marine protection. • Listening comprehension and understanding.
3: Habitats and adaptations	60 min	**Simple**	Rocky reef habitats, adaptations, examples of adaptations, relationships between habitat and survival and designing an "ideal creature" for a specific habitat. • Research and information gathering, observation, analysis, scientific understanding, creative thinking and design, and critical thinking.
4: Biotic vs abiotic factors of the ecosystem	30 min	**Simple**	Biotic and abiotic factors in ecosystems, examples of abiotic factors and biotic factors. • Concept understanding of ecosystem components, listening and comprehension, decision-making and scientific vocabulary.
Investigation 1: Classification	60 min+	**Moderate**: Multiple step activity.	Scientific classification of organisms, use classification keys to identify species, group organisms based on observable characteristics, creating and testing a classification key. • Observation and analysis, applying a classification system, communication, problem solving, and creativity and application.
Investigation 2: Marine Sanctuaries	60 min+	**Complex**: Using external resources. Independent learning.	Rules and permitted activities in marine sanctuaries, importance of marine sanctuaries, difference between marine park and sanctuary, Victoria's marine parks and sanctuaries, and promoting a marine sanctuary. • Research, inquiry, comprehension, interpretation of

		data, geographical awareness, scientific literacy, communication, persuasion, collaboration, creativity and critical thinking.

Learning intentions

Students will understand:

- Living things have structural features and adaptations that help them to survive in their environment.
- The growth and survival of living things are affected by the physical conditions of their environment.
- The differences between biotic and abiotic factors.
- Classification is a useful tool to help organise the diversity of organisms.
- Marine sanctuaries are an effective tool for managing the conserving marine species.

Success criteria

Students are able to:

- Demonstrate how organisms are suited to a kelp forest environment.
- Use examples to describe how particular adaptations aid survival.
- Identity biotic and abiotic factors that contribute to the survival of organisms in an environment.
- Use a classification key to identify species.
- Demonstrate understanding as to why it is sometimes difficult to classify new organisms correctly.
- Use local examples to communicate the importance of marine sanctuaries for the conservation and protection of ocean species.

Background

Marine protected areas (MPA) are areas of the ocean specifically designed to help the protection and maintenance of biodiversity within unique ecosystems that are potentially under threat. MPAs provide a range of benefits including protecting critical breeding, nursery and feeding habitats for fish, raising the profile of an area for marine tourism, and providing opportunities for education and cultural awareness.

Australia has a commonwealth network of MPAs that was established in November 2012, covering around 36% of waters within Australia's jurisdiction. Across Victoria, there are 30 MPAs. These include Marine National Parks (MNP), Marine Sanctuaries (MS), Marine and Coastal Parks, Marine Parks and a Marine Reserve. MPAs span Victoria's five marine bioregions and aim to conserve and protect ecological processes, habitats and associated flora and fauna. MNPs and MSs are "no-take" areas, while the other MPAs are managed for multiple uses.

Ricketts Point Marine Sanctuary is in Port Phillip Bay, just off Beaumaris in Melbourne's south-eastern suburbs. The sanctuary sits in an Aboriginal cultural landscape within the traditional Sea Country of the Bunurong People and was created in 2002 by the Victorian Government to ensure that representative samples of Victoria's diverse and distinctive marine environment are conserved for future generations.

The sanctuary is 115 hectares in size and supports a diverse range of habitats. Near the shore, the rocks are covered in red, green, and brown algae that provide food and shelter to many marine creatures including fish, stingrays, crustaceans, molluscs, and other invertebrates.

The main habitat within this marine sanctuary is rocky reef covered in golden kelp (*Ecklonia radiata*). This species dominates 8,000km of Australia's southern coastline - a bioregion recently given an identity, the Great Southern Reef. Golden kelp is known by scientists as a foundation species - its presence in an area supports the growth of many other species by providing food, nutrients, and shelter.

Resources

- Sanctuaries and Sea Creatures: Ricketts Point video
- Video Transcript
- Presentation slides
- Answers
- Quiz
- Marine life bingo cards (31 unique sets)
- Habitats and adaptations worksheet
- Investigation: Marine sanctuaries worksheet
- Investigation: Marine sanctuaries – pamphlet planning worksheet
- Review questions
- Review questions extension
- Glossary

Other useful external links

- Additional Video: A marine sanctuary emerges at Ricketts Point
- Victorian Fisheries Authority - Police chase of illegal fishing vessels in Port Phillip Bay
- Victorian Fisheries Authority recruitment
- Bunurong Map
- Ricketts Point Marine Sanctuary Guide
- Marine Parks and Sanctuaries Fact Sheet
- Great Southern Reef Website

Lesson plan

Activity 1: Marine life bingo

In this activity, students receive a unique *Marine life bingo card* and carefully study the marine species shown. As they watch the video, students listen for the narrator to mention each species and mark them off on their card. This activity encourages close observation, attention to detail and strengthens their understanding of marine biodiversity.

Step 1. Use slides 3-4. Hand out one *Marine life bingo card* to students and give them a few moments to study their card. There are 30 cards each with a unique combination of 15 species of marine life, as well as three blank boxes. Make sure to also access the *Marine life bingo* answers.

Step 2. Set up the Ricketts Point Video and explain to students to watch and listen out carefully for the marine life on the bingo cards. Only tick off marine life when the narrator mentions the specific species. First to get all 15 species ticked off shouts 'BINGO'.

Note if students are going onto the Classification part of this lesson then do not do the next step.

Step 3 (optional). Have students try and find their three missing species. They can move around the class looking at other students' cards. The first to get all three can also be a prize winner.

Species in order of appearance:

1. Ecklonia kelp
2. Sargassum
3. Sea lettuce
4. Seagrass
5. Banjo Ray
6. Dusky Morwong
7. Hulafish
8. Blenny
9. Sweep
10. Old Wives
11. Magpie perch
12. Port Jackson Shark
13. Pebble crab
14. Smooth toadfish
15. Leatherjackets
16. Moonlighter
17. Mysid shrimp
18. Flathead

Marine life bingo answers

	Sheet 1 - Winner	2	3	4	5	6	7	8 - 3rd
Ecklonia kelp	x	x	x	x		x	x	x
Sargassum	x	x	x	x		x	x	x
Sea lettuce	x	x	x	x	x	x	x	x
Seagrass	x	x	x	x	x	x		x
Banjo Ray	x	x	x	x		x	x	x
Dusky Morwong	x	x	x		x		x	x
Hulafish	x	x	x	x	x	x	x	x
Blenny	x	x		x	x	x	x	x
Sweep	x	x		x	x	x	x	x
Old Wife	x	x	x		x		x	x
Magpie perch	x		x	x	x	x		x
Port Jackson Shark	x		x	x	x	x	x	x
Pebble crab	x	x		x	x	x	x	x
Smooth toadfish	x		x	x	x	x		x
Leatherjackets	x	x	x		x		x	
Moonlighter		x	x	x	x	x	x	
Mysid shrimp		x	x	x	x	x	x	x
Flathead		x	x	x	x	x	x	

	9	10	11	12	13	14	15	16 - 2nd
Ecklonia kelp	x		x	x		x	x	x
Sargassum		x	x	x	x	x	x	x
Sea lettuce	x	x		x	x	x	x	x
Seagrass	x	x	x		x	x	x	x
Banjo Ray	x	x	x	x	x			x
Dusky Morwong	x		x	x		x	x	x
Hulafish	x		x	x		x	x	x
Blenny	x	x		x	x	x	x	x
Sweep		x	x	x	x	x	x	x
Old Wife	x	x	x	x	x	x		x
Magpie perch	x	x	x	x	x			x
Port Jackson Shark		x		x	x	x	x	x
Pebble crab	x	x	x	x	x	x	x	x
Smooth toadfish	x	x	x		x	x	x	
Leatherjackets	x	x	x	x	x	x	x	x
Moonlighter	x	x	x		x		x	x
Mysid shrimp	x	x	x	x	x	x	x	
Flathead	x	x	x	x	x	x	x	

	17	18	19	20	21	22	23	24
Ecklonia kelp	x	x	x	x	x	x	x	
Sargassum	x		x	x	x	x		x
Sea lettuce		x	x	x	x	x	x	
Seagrass	x	x	x	x		x	x	x
Banjo Ray	x	x		x	x		x	x
Dusky Morwong	x	x	x	x	x	x	x	x
Hulafish	x	x	x	x	x	x		x
Blenny	x	x	x		x	x	x	x
Sweep	x	x	x		x	x	x	x
Old Wife	x	x		x	x		x	
Magpie perch	x	x		x	x		x	x
Port Jackson Shark	x		x	x	x	x	x	x
Pebble crab	x	x	x	x		x	x	x
Smooth toadfish	x	x	x	x		x	x	x
Leatherjackets	x		x	x	x	x		x
Moonlighter		x	x	x	x	x	x	x
Mysid shrimp		x	x	x	x	x	x	x
Flathead	x	x	x		x	x	x	x

	25	26	27	28	29	30	31
Ecklonia kelp	x	x	x	x	x		x
Sargassum	x	x	x	x	x	x	x
Sea lettuce	x	x	x	x	x	x	x
Seagrass	x	x		x	x	x	
Banjo Ray	x	x	x		x		x
Dusky Morwong		x	x	x	x	x	x
Hulafish	x	x	x	x		x	x
Blenny	x		x	x		x	x
Sweep	x		x	x	x	x	x
Old Wife		x	x	x	x	x	
Magpie perch		x	x	x	x	x	x
Port Jackson Shark	x	x		x	x	x	x
Pebble crab	x	x		x	x	x	
Smooth toadfish	x	x	x	x	x	x	x
Leatherjackets	x	x	x	x		x	x
Moonlighter	x	x	x		x	x	x
Mysid shrimp	x	x	x		x		x
Flathead	x		x	x	x	x	x

Activity 2: Quiz

Use this 10-question quiz to assess comprehension and understanding of the video. This could be run as a Kahoot quiz, online form or worksheet.

1. What year was the sanctuary established?
   a) 1999
   b) 2002
   c) 2005
   d) 2013

2. How many sanctuaries are there in the north of Port Phillip Bay?
   a) Granite
   b) Sandstone
   c) **Limestone**
   d) Metamorphic

3. What type of rock are the rocky reefs made of?
   a) Granite
   b) Sandstone
   c) **Limestone**
   d) Metamorphic

4. How large can the banjo ray grow?

a) .5m

b) 1m

c) 1.5m

d) 2m

5. What animals migrate to Ricketts point at the beginning of summer?

a) Birds

b) Fish

c) Sharks

d) Turtles

6. Why do these animals migrate to Ricketts Point?

a) To mate

b) To lay eggs

c) Both a and b

d) Neither a or b

7. Which fish were shown as juveniles in the video?

a) Dusky morwong and sea sweep

b) Banjo rays and Port Jackson sharks

c) Leatherjackets and moonlighters

d) Magpie perch and hulafish

8. The flathead is 'top dog' in which habitat?

a) Rocky reef

b) Kelp forest

c) Seagrass

d) Caves

9. Which of these fish were not mentioned in the video?

a) Hulafish

b) Magpie Perch

c) King George Whiting

d) Sweep

10. The plants and animals at Ricketts point are part of an interconnected reef system known as?

a) The Great Barrier Reef

b) The Great Ocean Road

c) The Great Southern Reef

d) The kelp forest highway

Activity 3: Habitats and adaptations

This activity enables students to understand how marine organisms survive by exploring their habitats and adaptations. Students identify key features that help species live in the marine ecosystem and apply their knowledge through research and reasoning. The extension task further strengthens understanding by having students design an "ideal creature" suited to the kelp forest habitat.

1. Use slides 6-12, to run through some facts about the local species observed in the video. Focus on the habitats (places where the animals may live) and adaptations (features that help them survive). Begin with the definition of 'adaptation' *"An adaptation is a special skill which helps an animal to survive and do everything it needs to do."*
2. Hand out *Habitats and adaptations worksheet* and access the answers.
3. Encourage students to read through the worksheet carefully. Students may like to research on the internet or you may like to have students just come up with their own ideas.
4. You may like to collect the worksheets and mark or use peer-to-peer or self-marking. There are a total of 15 marks for this worksheet.

Worksheet answers:

1. Which of your bingo cards are habitats? *Habitat cards are Ecklonia, Sargassum, Sea Lettuce and Seagrass*

2. How do other organisms benefit from the habitat? *Food, a place to lay eggs, a place to hide from predators, a place to get out of the strong current / waves, provides oxygen in the water.*

3. Living things have special features called adaptations that help them to survive in their environment. For example, a cuttlefish may release a cloud of ink to escape from a predator. Choose two more species featured in the video. What features might help these organisms survive in this environment?

Various answers but could include things like:

a) *Banjo Ray - flattened body for gliding over sandy sea floor in search of prey*

b) *Pebble Crab - large pincer claw for breaking open shells.*

c) *Ecklonia kelp - broad flattened leaves for large surface area to capture sunlight*

d) *Port Jackson Shark - thick skin for protection. Strong jaw and molar like teeth for crushing prey.*

4. There are three different categories for adaptations. Write a definition for each type in the space below:

Behavioural - responses made by an organism that help it to survive/reproduce.

Physiological - a body process that helps an organism to survive/reproduce.

Structural - a feature of an organism's body that helps it to survive/reproduce.

5. Put a letter B, P or S next to your answers in Q3 to identify the type of adaptation e.g., B for behavioural.

Extension: Draw and describe the "ideal creature" best adapted to the kelp forest habitat. Explain how this makes the organism well suited to the kelp forest.

Activity 4: Biotic vs abiotic factors of the ecosystem

This activity helps students distinguish between biotic and abiotic factors through an interactive, movement-based game. By responding physically to each factor, students reinforce their understanding of living and non-living factors in marine ecosystems in an engaging way.

1. Use biotic vs abiotic adaptations presentation slides 13-14 to introduce these terms.
2. Class game [slide 15]: Get all the students to stand up. Explain that you will read out one factor at a time. If you stand up you are responding that the factor is 'abiotic'. If you stand up with both hands up, you are responding that the factor is 'biotic'. If a student responds incorrectly, they must sit down.
    a. Start with the word 'sunlight' (abiotic). Any students with hands up must now sit down.
    b. Next word 'competition' (biotic).
    c. Temperature (abiotic).
    d. Water clarity (abiotic).
    e. Food availability (biotic).
    f. Water currents (abiotic).
    g. Predation (biotic).
    h. Oxygen availability (abiotic).

Investigation 1: Classification

This classification activity helps students understand how scientists organise living things into groups by using observable features. Through hands-on sorting, using a classification key, and playing a "guess who" game, students build skills in identifying organisms, asking purposeful questions, recognising physical characteristics, and applying simple branching keys. This strengthens their scientific reasoning and deepens their understanding of how marine species are grouped and compared.

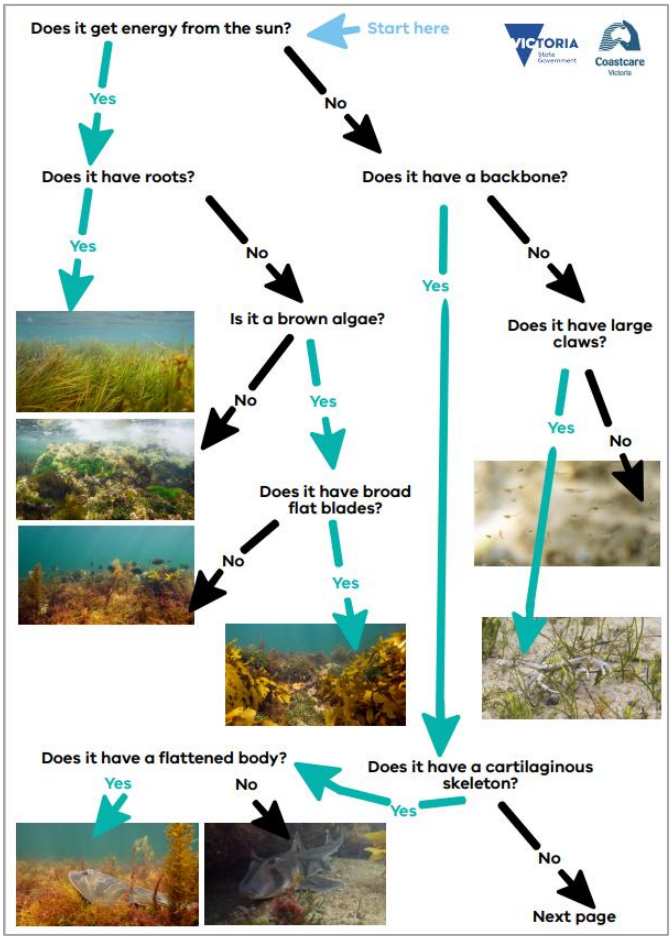
Classification is a system used by scientists to describe organisms. To classify things means to place them in different categories, or groups. A classification key is a series of questions that determine an organism's physical characteristics. When you answer one question, it either branches off to another question or identifies the organism. Classification keys help to identify an unknown organism or work out how to categorise groups of similar organisms.

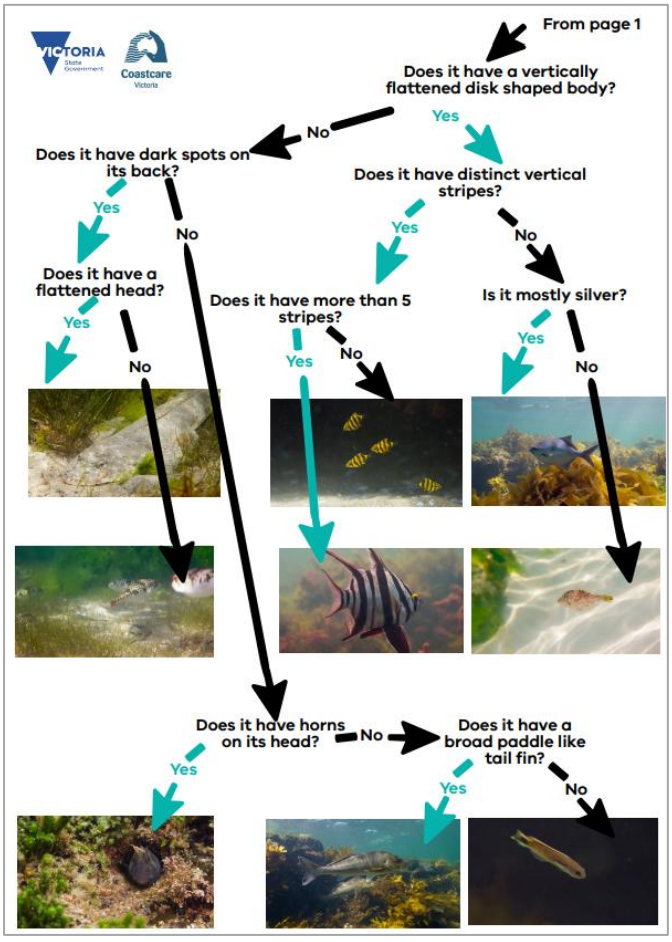
1. Use classification presentation slides 16-17 to introduce classification.
2. Use presentation slide 18. Students cut out their bingo cards and glue them onto the worksheet. In pairs students can play a game of 'guess who' using the questions on their worksheet. The students will face each other and randomly choose a card from their pile and without showing their partner, place it in front of them facing the other student. They need to

generate questions to guess use the questions on the sheet to work out what the marine species their partner has is. If the answer is ‘yes’ they can ask another question. If the answer is ‘no’ it is the other player's turn. Use questions such as is your organism an animal or is does your organism have fins. Continue playing until you choose the correct organism [refer to slide 19 which shows all the marine organisms].

Extension: Students design a classification key using the marine life bingo cards, and the questions asked in the ‘guess who’ game [slide 20]. Once created they can test their classification key with a partner.

Example of classification key using the bingo cards:





Investigation 2: Marine sanctuaries

This investigation helps students build their understanding of how marine sanctuaries protect biodiversity and why these spaces are important. By researching Victorian marine sanctuaries and turning their findings into an information pamphlet, students practise locating and interpreting information, identifying human impacts and permitted activities, comparing protected areas, and communicating environmental messages for a public audience. The task develops skills in research, map use, and conservation literacy, while encouraging students to think critically about how people can care for marine environments.

Use slides 21-23, which shows a map of the Ricketts Point Marine Sanctuary and outlines the task. In this research task, students will use the marine parks and sanctuaries fact sheet or other resources on the internet to research the following questions on the *Investigation 2: Marine sanctuaries* worksheet:

1. What activities are not permitted in a marine sanctuary? *Catching or attempting to catch fish - i.e., fishing lines in water, taking any marine life, being in the water with a spear gun, extractive or damaging uses, aquaculture, exploration drilling, oil and gas extraction, dredging, waste disposal.*
2. What activities are permitted in a marine sanctuary? *Recreation, tourism, snorkelling and scuba diving, education, research, note that some activities such as research or filming may require a permit.*
3. Why are marine sanctuaries important areas? *Act as nursery areas for small fish to grow, provides a safe place for fish to breed, provides a place for large fish and animals to grow (these large individually may be 'super breeders'), creates a baseline for scientists to compare other areas and monitor impact, takes care of the habitat, acts an educational tool.*
4. What is the difference between a marine park and a marine sanctuary? *All marine sanctuaries are marine parks, but not all marine parks are sanctuaries. Marine parks have multiple zones - some of these allow various activities like fishing. In sanctuaries no fishing or extractive activities are allowed.*
5. How many other marine parks and sanctuaries are in Victoria? *Victoria has 13 marine parks and 11 marine sanctuaries.*

Students use the *Investigation: Marine sanctuaries, Pamphlet planning* worksheet to create a pamphlet to promote one of Victoria's marine sanctuary. Students can work individually or pairs on the task. The pamphlet must include a map and may use information from questions answered above but should also focus on the following:

1. Marine sanctuary name and location
3. What is unique about this marine sanctuary?
4. How big is it? What does this size compare to?
5. What facilities are in the area and what are good activities to do here?
6. Are there any ecotourism operators / opportunities? If not, is there potential for some?
7. What are the local threats to this area?
8. What marine species can be found in this sanctuary?

The task can be marked out of 15.

Review questions

1. What is a habitat? (1 mark)

   A place where a plant or animal lives.

2. Why do organisms need a habitat? (2 marks)

   The habitat may provide food, shelter, a place to lay eggs, and a place to live.

3. What is an adaptation? (1 mark)

   A skill or characteristic which helps an animals or plant to survive.

4. Behavioural adaptations are things organisms do to survive or reproduce. For example - a cuttlefish may release a cloud of ink to escape from a predator. Give one other example of a behavioural adaptation and describe how it benefits the organism. (2 marks) *Answers may vary.*

5. A physiological adaptation is a body process that helps an organism survive/reproduce. For example - a blue ringed octopus makes venom. Give one other example of a structural adaptation and describe how it benefits the organism. (2 marks) *Answers may vary.*

6. A structural adaptation is a physical feature that helps an organism survive/reproduce. For example - a rock lobster has a hard exoskeleton and long antenna for protection. Give one other example of a physiological adaptation and describe how it benefits the organism. (2 marks) *Answers may vary.*

7. Name two biotic factors that may impact marine life. (2 marks)

   Any two or more of the following: Abundance of predators or prey, abundance of food, parasites, competition for space and food.

8. Name two abiotic factors that may impact marine life. (2 marks)

   Any two or more of the following: Sunlight, salinity, pH, nutrients, water movement, temperature, oxygen, carbon dioxide.

Review questions extension

9. You are a marine park manager and creating a guide for visiting researchers learning to identify marine life in the area. Describe some of the unique physical characteristics of each species.

Gurnard Perch

Large eyes

Large dorsal spines

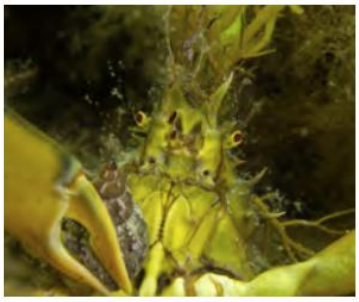
Large head

Shiny, mottled skin

Brown crab

Large claws

Horizontally flattened body

	***Seal*** *Whiskers* *Flippers* *Mostly grey body*
	***Octopus*** *Camouflaged body* *Flexible body* *Tentacles with suckers*
	***Golden decorator Crab*** *Yellow body* *Large claws* *Red eyes*
	***Leatherjacket*** *Vertically flattened body* *Disk / dinner plate shaped body* *Spots and lines* *Disproportionately small tail* *Spike on head*

10. Create a classification key for these species using yes/no questions and draw the flowchart.

Answers may vary. One example as follows:

1. *Flattened body?*

   Yes

a. *Vertically flattened?*

*Yes - **Leatherjacket fish***

*No - **Brown crab***

No go to 2.

2. *Tentacles with suckers?*

*Yes - **Octopus***

No go to 3.

9. *Mostly grey body?*

*Yes - **Seal***

No go to 4.

4. *Yellow body?*

*Yes - **Golden decorator crab***

No - go to 5.

5. *Large eyes*

*Yes - **Gurnard perch***

11. Describe how classification may be useful to marine park managers and researchers?

Answers may vary. Example answers such as:

Helps researchers know which species there may be more / less of and monitor trends.

Park managers will be able to know which species live in the park and help manage them.

It will help managers and researchers know if other new species arrive in the area.

It helps to create laws and rules around fishing regulations for example.

Researchers will be able to focus their studies on specific species and understand them better.

Glossary

Abiotic: Non-living factors in an ecosystem such as temperature, light, water and nutrients.

Adaptation: A special skill or characteristic which helps an animal to survive.

Biodiversity: The variability of life in all its forms and the ecosystems within which it operates.

Bioregion: A region defined by characteristics of the natural environment rather than man-made divisions.

Biotic: Anything living, for example animals, plants and microbes.

Classification: The arrangement of plants and animals in groups according to similarities.

Ecotourism: A form of tourism that involves low impact visits to undisturbed ecological areas.

Ecklonia: A golden kelp species that is widespread across the southern coastline of Australia.

Great Southern Reef: The interconnected system of kelp forests fringing 8,000km of Australia's southern coastline.

Habitat: A place where an animal lives.

Kelp: A large seaweed that is a type of brown algae.

Kelp forest: A dense canopy of kelp that contains rich biodiversity.

Marine Park: Synonymous with MPA (see below).

Marine Protected Area (MPA): A section of the ocean where a government has placed limits on human activity.

Marine Sanctuary: Special areas that protect important marine ecosystems where fishing is prohibited.

Seaweed: Types of algae growing along seashores.