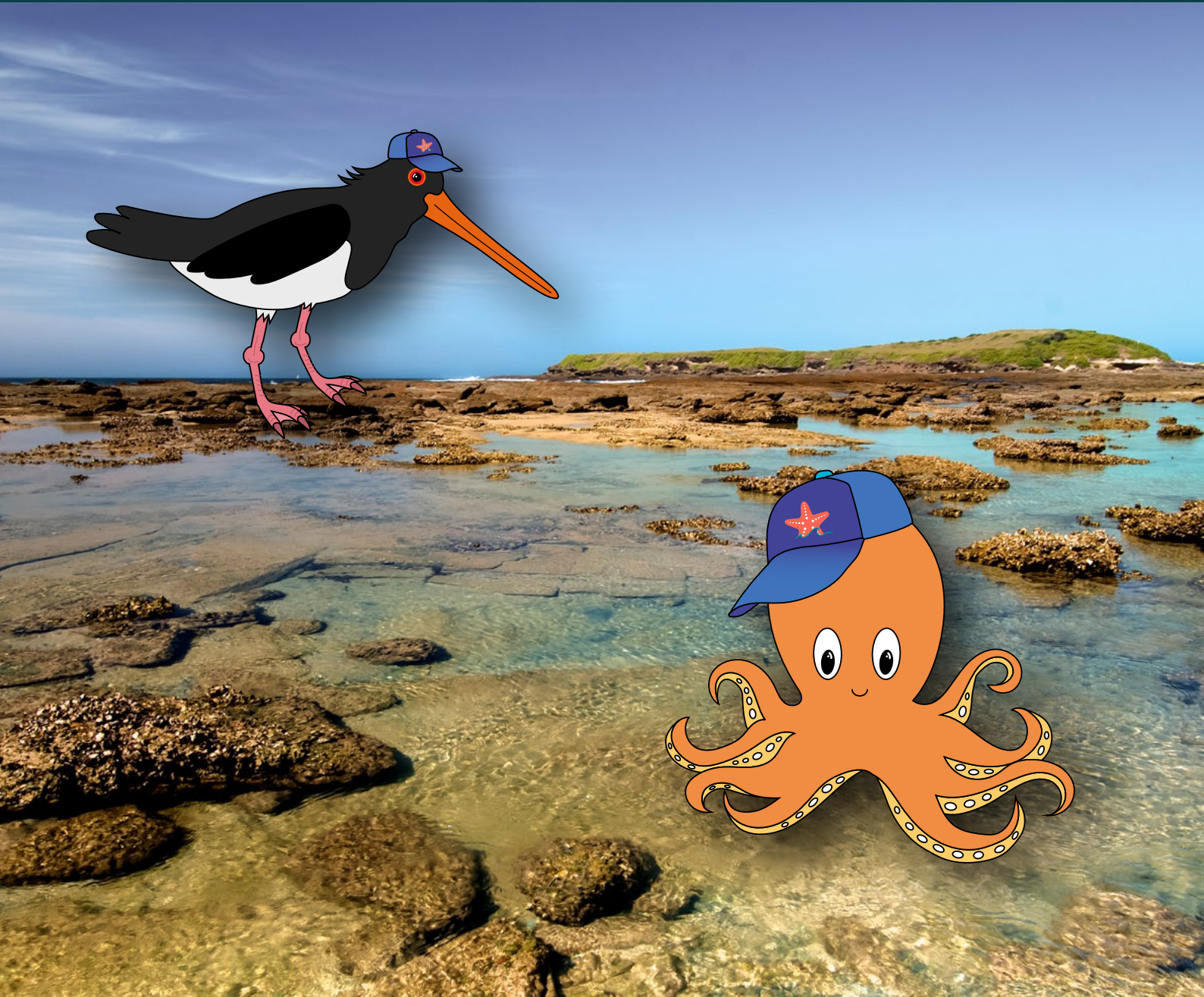




Marine Estate Agents Program



Teaching materials for Stage 1 (Years 1-2)



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Acknowledgement of Country

We would like to acknowledge the Traditional Owners from the NSW Aboriginal family groups and pay respect to their Elders, past, present and emerging. We thank them for sharing their knowledge to help the wider community learn about their culture.



Introduction

About the Marine Estate Agents Program

The Marine Estate Agents Program is an education program for HSIE and Science subjects under the NSW syllabus. Many activities are also aligned with the cross-curriculum priorities of Sustainability and Aboriginal and Torres Strait Islander Cultures and Histories.

The program's lessons are associated with the marine estate's priority initiatives:

1. Improving water quality and reducing litter
2. Delivering healthy coastal habitats with sustainable use and development
3. Planning for climate change
4. Protecting the Aboriginal cultural values of the marine estate
5. Reducing impacts on threatened and protected species
6. Ensuring sustainable fishing and aquaculture
7. Enabling safe and sustainable boating
8. Enhancing social, cultural and economic benefits
9. Delivering effective governance

You can find out more about the Marine Estate and all the project work that is being achieved across the state at marine.nsw.gov.au



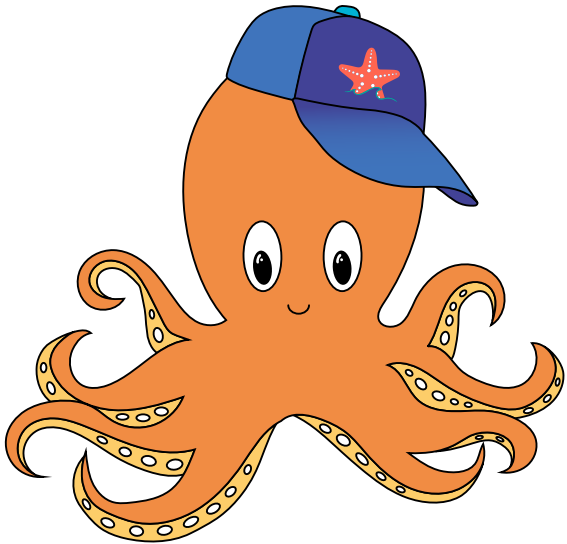
What is a Marine Estate Agent?

Marine Estate Agents are our champions or ‘agents’ of change, looking after the marine estate.

Anyone can be a Marine Estate Agent.

Several mascots have been chosen to help students connect with becoming an Agent... they are learning and doing good things in the marine estate to look after our mascots.

The Stage 1 (Years 1–2) mascots are Ollie the Octopus and Piper the Pied Oystercatcher. Ollie hangs out in rocky reefs and platforms and can get in trouble with fishermen at times. Piper is an Endangered species that needs our support and protection. They like to be SunSmart and wear their Marine Estate Agent hats in the sun.



Once you have completed this unit of work, students can be awarded their Marine Estate Agent certificate and sea star badge.

The sea star symbol on their certificate acknowledges the student’s awareness of the marine estate environment and how to look after it. It is a ‘badge of honour’ and it is every student’s mission to help others understand this message.



Using this resource

This resource can be delivered in parts, or as a whole integrated subject. It has been designed so that teachers can pick and choose what lessons will work best for their class. It is recommended that the minimum requirement for this program is to complete the introductory **Unit 1 – The marine estate**.

Units of work

Each unit of work includes:

- key curriculum outcomes
- a suggested assessment task
- 2–3 topics with accompanying presentations and worksheets
- key identifying icons to understand what is included at first glance
- estimated time to complete the topic (this is subjective based on each teacher’s discretion)
- optional excursion activities that can be mixed and matched to suit class requirements and location suitability.

Two units are aligned with the HSIE subjects of Geography and History. Unit 2 is aligned with the Science–Living World subject. A breakdown of each unit and its learning outcomes is shown on the following page.

Units can be applied to suit other syllabus outcomes, such as English, Technology and Visual Arts. Teachers can use the research and topic ideas from this resource to support their writing or art programs – see the example photo of applying learning about pollution in our oceans to an art project.



Videos or Apps



Reading or Research



Writing



Art / Activity



Background content

The Marine Estate Agents Program is supported by background topic-related content that can be used by teachers and students to help the teaching/learning process. The relevant topics have been referenced within the teaching materials.

To access this content, navigate to the Marine Estate Education Hub at marine.nsw.gov.au

Marine Estate Agents Activity Book

Included is the Marine Estate Agents Activity Book 1 with simple, fun activities that relate to the lessons. Once completed, these activity books show that your students know how to help our marine estate and become Marine Estate Agents.

If you choose not to use the activity book, students can still receive their certificate – see page 37 of this resource.



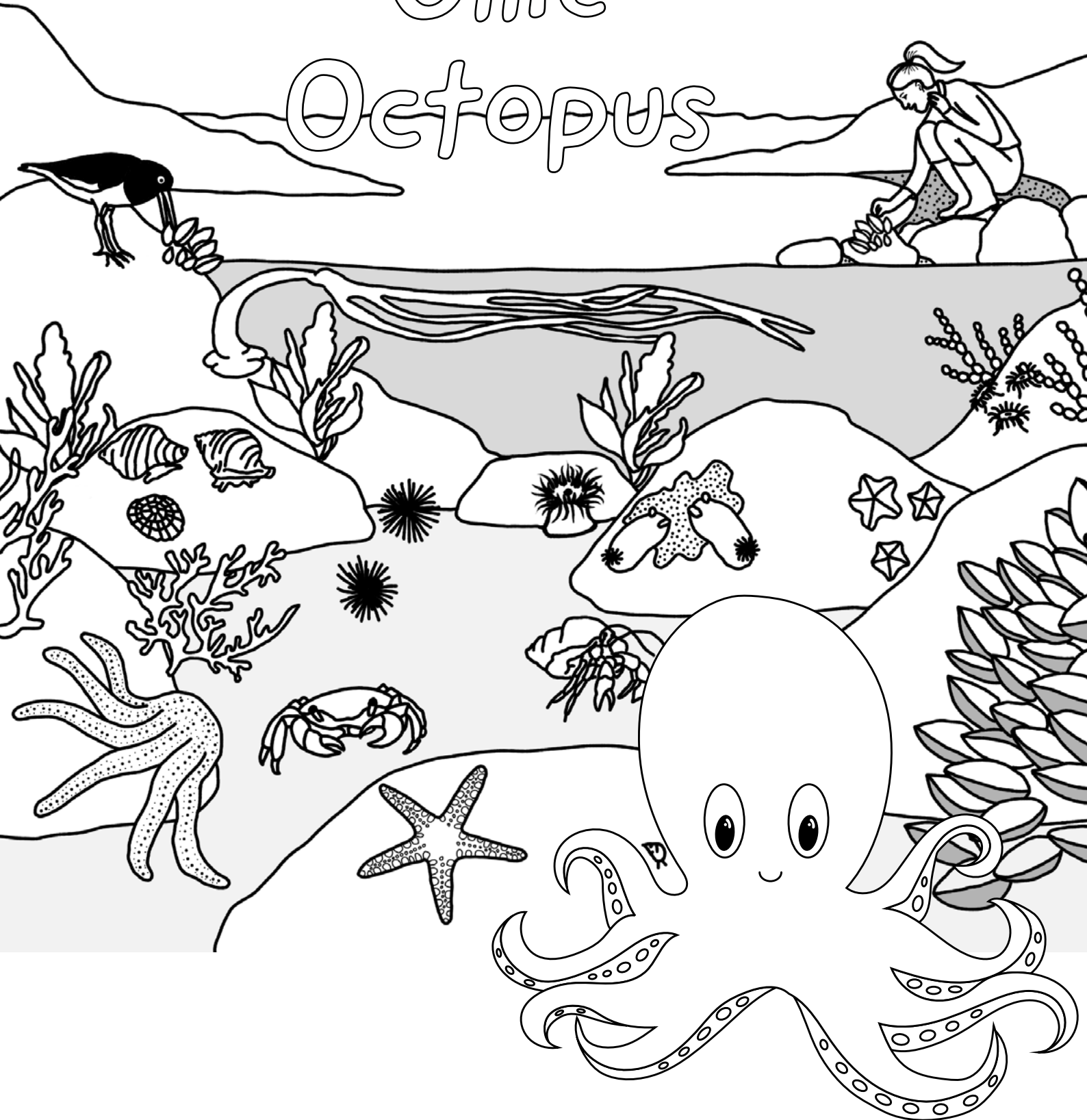
Stage 1 Learning Outcomes

	Unit 1: The marine estate	Unit 2: Marine creatures	Unit 3: Features of Sea Country
Topics	What is the marine estate? Keep our sea litter free Marine estate yarn-up	A marine creature's home Threats to wildlife How many fish can I catch?	Connecting to Sea Country Seasonal calendar
Background content	The marine estate	Ecosystems in the marine estate Fishing and boating	Traditional use
Syllabus Link	GE1-1 GE1-2	ST1-4LW-S	GE1-1 GE1-2
Cross-curriculum priorities	Sustainability	Sustainability	Aboriginal and Torres Strait Islander Culture and Histories
Excursion Activity	A special place Treasure hunt Items on the beach Quiet time	Treasure hunt	A special place Treasure hunt



Photo: Pied oystercatchers (Kelly Coleman/PeeKdesigns)

Ollie Octopus

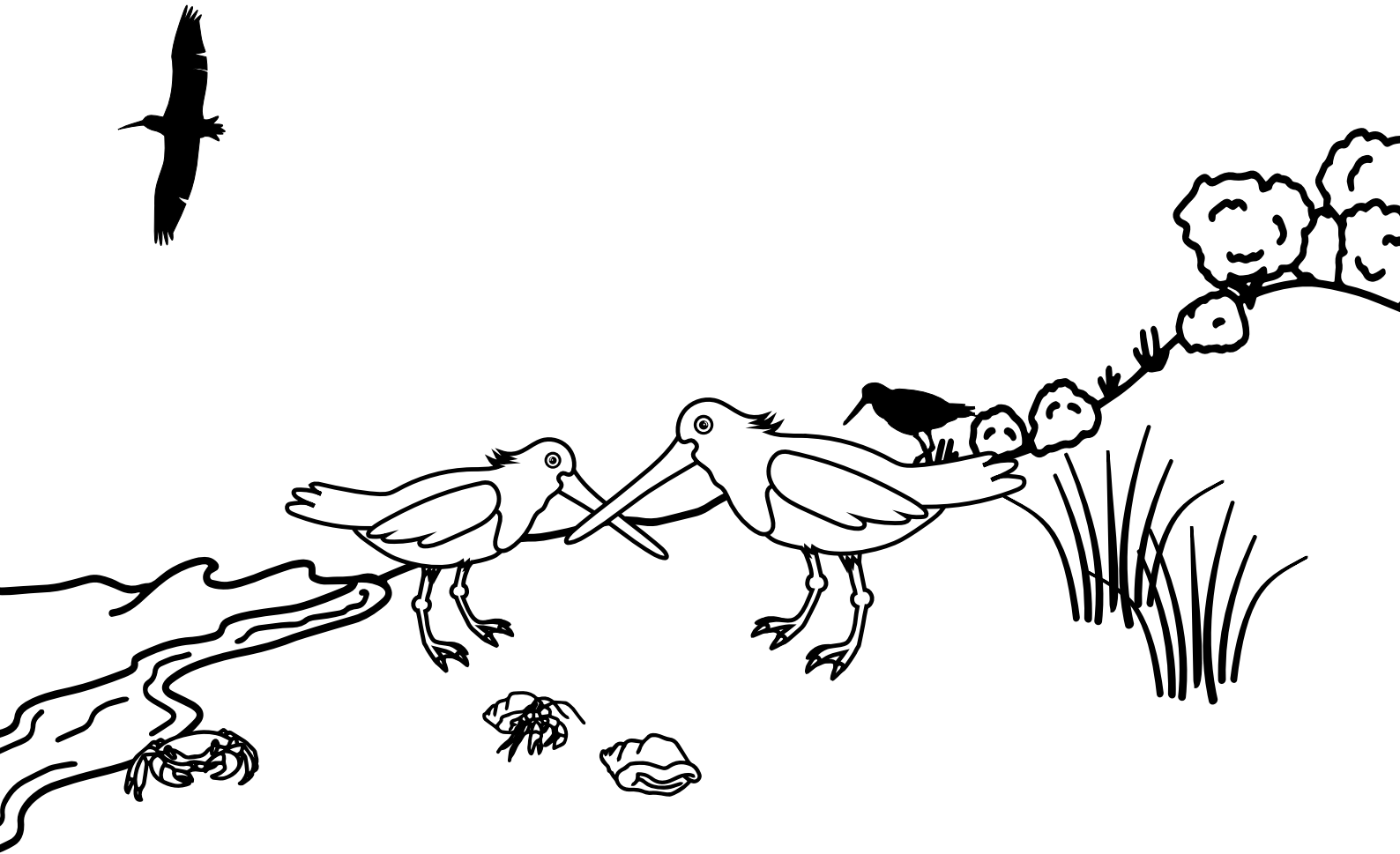


I'm a Marine Estate Agent.

I hang out in the shallows and the deeper reefs helping people become aware of all the amazing marine life.

You can be a Marine Estate Agent too!

Piper Pied Oystercatcher



I'm a Marine Estate Agent.

**I hang out on the beaches to raise awareness of all shorebirds
who nest and feed on the beaches and sand dunes.**

I am Endangered and need YOUR help.

Become a Marine Estate Agent and care for Piper's habitat.

Unit 1: The marine estate

Content focus

Students describe a special place in the marine environment and/or visit a special place and learn that places can be special for different reasons. Students are introduced to the term 'marine estate' and who is responsible for looking after it.

Students will be made aware of the various items that can get washed up on a beach or in an estuary and will observe their similarities and differences and how we can help look after places.

Key vocabulary

Marine estate, beach, estuary, coastal, mangrove, seagrass, management, parks and reserves, natural, rubbish, litter, pollution, yarning circle.

Excursion activities

The following excursion activities can be used to support this unit:

- A special place
- Treasure hunt
- Items on the beach
- Quiet time

Resources

Presentations: The NSW marine estate. Jobs in the marine estate. What can we find in the marine estate?

Worksheet: My favourite place

Marine Estate Agent Workbook: Areas in the marine estate. My favourite job. Do I belong at the beach? Having fun in the marine estate.

Assessment task

Students reflect on their learning to choose a special place in the marine estate that is important to them.

They develop a visual representation conveying – where is it, who's in it, what's special about it and how we can look after it.

Curriculum outcomes

HSIE: Geography

GE1-1 describes features of places and the connections people have with places

GE1-2 identifies ways in which people interact with and care for places

Cross-curriculum priorities

Sustainability

Concepts

Place: the significance of places and what they are like

Space: the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in

Environment: the significance of the environment in human life, and the important interrelationships between humans and the environment

Inquiry skills

Acquiring geographical information: pose questions and make observations.

Processing geographical information: represent data by constructing tables, graphs or maps and draw conclusions based on the interpretation of geographical information sorted into categories.

Communicating geographical information: present findings in a range of communication forms, reflect on their learning and suggest responses to their findings.

Geographical tools

Graphs and statistics: tally charts, pictographs.

Spatial technologies: virtual maps.

Visual representations: photographs, diagrams, story books, multimedia, web and app tools.

What is the marine estate?

Overview

Students describe a special place in the marine environment and/or visit a special place and learn that places can be special for different reasons. Students are introduced to the term 'marine estate' and who is responsible for looking after it.

Description

Your special place

Students think about a place they like to visit along the coast – it could be a beach, lagoon, sand dune, pier, boat harbour, favourite fishing spot etc. Each student tells the class what their place is and why it is special to them. If they don't have a special place down along the coast, then have them think of a place that they would like to visit on the coast. Create a pictograph on the board of everyone's special places grouped into the following location categories:

- beach and sand dunes
- rocky shores
- coastal lakes and lagoons
- mangroves and marshes
- marinas and boating areas.

Discuss any differences or similarities. Can any special places fit into more than one category? Students fill in the pictograph on their worksheet. They can draw smiley faces or use stickers.

Marine estate

Show students a slideshow of images from the marine estate. Help students understand that all these images are from an area we call the 'marine estate'. This area includes the ocean, estuaries, beaches, dunes, rocky shores, coastal marshes, mangroves, seagrass beds, coastal lakes and lagoons connected to the ocean and islands.

Go through the slides again, one by one, and ask students to identify:

- the different activities that people could do in those places (for example: swimming, walking, fishing, diving, sailing)
- the different features in those places or what makes those places special (for example: jetty, beach, boats, boardwalk).

Engage students in a discussion about how the marine estate is comprised of many different places, is used by many different people and has many different features.

Students colour in the pictures in their *Marine Estate Agents Activity Book 1 – Areas in the marine estate*.

Inquiry questions

What are the features of, and activities in, places?

How can we care for places?

How can spaces within a place be used for different purposes?

Resources

Presentation: The NSW marine estate

Presentation: Jobs in the marine estate

Worksheet: My favourite place

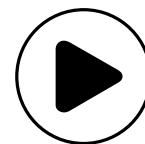
Marine Estate Agents Activity Book 1 – Areas in the marine estate, My favourite job

Background topic

Marine estate

Estimated time

3 lessons



Looking after the marine estate

Explain to students that there are many different jobs or roles people have to help look after different parts of the marine estate. This includes people who look after the fish and ocean life, boat harbours, parks and reserves and significant historical sites. We can all help look after the marine estate every time we visit.

Show students the presentation 'Jobs in the marine estate' that showcases profiles of six people who work in, and look after, the marine estate. Read them to the students and ask students if they have ever come across any of these people before.

In their *Marine Estate Agents Activity Book 1 - My favourite job*, students draw their ideal marine estate job. Students show their jobs to the class and describe one action that they, or their family, can do to help this person look after the marine estate.

My favourite place



Which location is your favourite place along the coast?
Piper's favourite places are beaches and rocky shores.

Everyone in the class votes on their favourite place.
For each vote draw a smiley face in the column.

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Beach and sand dunes

Rocky shore

Lakes and lagoons

Mangroves and marshes

Marinas and boating areas

 = 1 vote

Keep our sea litter free

Overview

Students are made aware of the various items that can get washed up on a beach or in an estuary and will observe their similarities and differences and how we can help look after places.

Description

Does it belong?

Show students a variety of materials that could be found in various areas of the marine estate using the presentation ‘What can we find in the marine estate?’

This includes natural items, such as shells, sponges, seaweed, sand and rock; as well as introduced items, such as a fishing line, soft drink can, apple core, plastic wrapper, rope, plastic bag and face masks. Prompt students to say what they think is different between the items.

Students match the items from the slideshow to the natural or introduced grouping in their *Marine Estate Agents Activity Book 1-Do I belong at the beach?*

How did it get there?

Introduce students to basic forms of energy, such as wind and water. When the wind moves the air, items that will move, move. When water moves, such as a river flowing down a hill, or the ocean’s waves, items that can move, move. Ask students to describe (predict) what would happen if we were to blow an empty plastic bag or a balloon – it moves. If we were to put that plastic bag or balloon on the surface of a stream – it moves. Conduct a basic experiment with some classroom items to explain this.

Go through each of the images in the slideshow again and ask students if they think the items got to the beach by wind or water (or even left by thoughtless or careless users). Ask students how far those items might have travelled. Could they have come from the mountains, or could they have come from the local neighbourhood? Discuss how we all need to look after our marine estate by picking up and disposing of litter properly, no matter how far away from the ocean we might be. [Take 3](#) pieces of rubbish with you when you leave the beach, waterway or... anywhere, and you have made a difference.

Extension activity

If you want to investigate the impact of balloons on our ocean life, watch the trailer for Rubber Jellyfish and see if it is suitable for your class. You can obtain a school license to view the full video through the Rubber Jellyfish website: rubberjellyfishmovie.com/watch/

Create a waste to art project that highlights the impact of waste on our marine life and oceans. See photos for an example.

Inquiry questions

How can we care for places?

Resources

Presentation: What can we find in the marine estate?

Marine Estate Agents Activity Book 1-Do I belong at the beach?

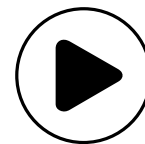
Background topic

Marine estate

Catchments

Estimated time

2-3 lessons



Marine estate yarn-up

Overview

Students reflect on activities they have done when visiting the marine estate and identify that the marine estate has many places that can be used for many different activities.

Description

Special beach items

Gather students in a *Yarning Circle* to talk about the marine estate and the activities students do in those areas. Discussion starters can include:

- On the weekend/over the school holidays, I went to ...
- When I visit the marine estate, I go to ...
- Things I like to do when I visit the marine estate are ...
- When I visit these places, I feel ...
- A favourite memory from visiting these places is ...

Each student has the opportunity to tell their story and reflect on their experiences with no interruption from others in the circle. If they haven't been to the marine estate, they could substitute in a special place of their own, such as a river or creek.

Keep a list of the different activities and places that students talk about. At the end of the yarning session, discuss how many different activities have been mentioned that can be done in the marine estate. Ask students if they can name any more and list them on the board. Discuss how places can be used by many people for many different purposes and that we all need to respect the marine estate so that we can all enjoy it for many years to come.

In their *Marine Estate Agents Activity Book 1 - Having fun in the marine estate*, students record, through images or words, an activity they can do when in the marine estate.

Extension activity

You can use the yarning circle to discuss other topics that may affect the wellbeing of students when visiting the marine estate. Such topics could include:

- How do I feel when I see litter on the beach?
- When I see images of animals affected by pollution, such as on TV or down at the beach, how does it make me feel?
- Why do I think it is important to follow the rules when going to the beach? Such as swimming between the flags, only walking on the paths, wearing sunscreen and a hat, picking up dog poo, etc.

Turn your yarn into action by:

- hosting a waste free lunch challenge for your class or whole school.
- setting your school up to be litter free. Check out the [Litter Free Schools](#) toolkit from Taronga Conservation Society.

Inquiry questions

How can spaces within a place be used for different purposes?

Resources

A 'talking stick' or other item for use in the yarning circle

Marine Estate Agents Activity Book 1 - Having fun in the marine estate

[Litter Free Schools](#) toolkit

Additional notes

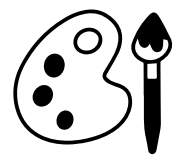
[Conduct a Yarning Circle](#)

Background topic

Marine estate

Estimated time

1 lesson



Unit 2: Marine creatures

Content focus

Students take a close look at the habitat needs of different marine life and how a loss of habitat can threaten animals. Students participate in a storytelling role play that shows how not all living things grow into adults.

Students learn that fish are a broad group of animals and they have special features. Students generate an understanding of the need for fishing bag limits to keep wild fish stocks sustainable.

Key vocabulary

Habitat, environment, threat, population, fishing, bag limits.

Excursion activities

The following excursion activity can be used to support this unit:

- Treasure hunt

Resources

Presentations: Living things in the marine estate, Features of living things in the marine estate

Interactive: [Can I live here?](#)

Information sheet: Piper the pied oystercatcher

Worksheets: Fish near me, Fishing game

Materials: Fishing game (see activity)

Marine Estate Agent Workbook –Where do I live? What's special about me? Catching your bag limit

Assessment task

Students create a visual display that shows one habitat on one side of the paper and another habitat on the other (this could be a class/group task by creating a paper mural). Students can use the illustrations and animals used in the Activity book discussion to guide them.

Curriculum outcomes

Science

ST1-4LW-S describes observable features of living things and their environments

Cross-curriculum priorities

Sustainability

Working scientifically

Communicating: share observations and ideas based on guided investigations.

Adaptations

This unit could be applied as an English unit using the research topics to further develop persuasive and informative texts.

A marine creature's home

Overview

Students take a close look at the habitat needs of different marine life.

Description

Habitat for living things

Introduce the basic needs of living things – air, food, water, shelter – by first talking about ourselves. These things form an animal's habitat.

***A habitat is like a home. All the things the animals need to survive can be found in their habitat, just like we find them in our home. Air to breathe, food to eat, water to drink and a safe place to shelter. A healthy habitat has all these things.**

Take students outside to explore their school grounds and see if you can find any animals (insects, birds, lizards). Thinking about the needs of animals to survive (air, food, water, shelter) ask students to try to locate these habitats.

Back in the classroom, use the presentation: 'Living things in the marine estate', to display photos of five different species from the marine environment and talk about their habitat needs. Are these needs different to those of the animals around the school?

Using the drag-and-drop interactive resource [Can I live here?](#), students are shown an illustration of different habitats. As you go through the resource students need to identify where the living things might be found in the habitat. Will all animals be found there? Why or why not? Guide students through a discussion to help them understand that not all animals live in the same habitat; for example, a whale can't live at the beach because the water is too shallow.

Students connect the marine creature to their habitat need in their *Marine Estate Agents Activity Book 1 – Where do I live?*

Helping a local habitat

Choose one habitat from the previous activity that is relatively local to your school. Investigate some of the animals that might live there – this could be conducted on an excursion. Ask students to think of those animals' needs; for example, mud crabs need mangroves, fish need underwater shelter and birds need roosts and food.

What could the class do to help support the animals living in that habitat? Answers can include:

- look after the health of the habitat
- reduce litter
- fence off areas from people
- reduce boat speeds near those areas.

Inquiry questions

What are the external features of living things?

How can we improve a local environment to encourage living things to thrive?

Resources

Presentation: Living things in the marine estate

Interactive: [Can I live here?](#)

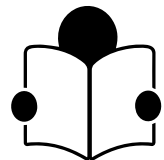
Marine Estate Agents Activity Book 1 – Where do I live?

Background topic

Ecosystems

Estimated time

3 lessons



Threats to wildlife

Overview

Students learn that many actions can threaten animals and that threats can happen at different stages of a living thing's life. Students participate in a storytelling role play that shows how not all living things grow into adults.

Description

Threats to living things

Review the needs of living things from Lesson 1. Lead students to discuss what would happen if we change or remove one of these basic needs. This introduces a 'threat' for the living thing.

- If a bird's shelter was removed, where would it sleep or lay its eggs?
- If a whale's food was removed, what would it eat?
- If the water a fish lived in was polluted, would it get sick?

Reinforce the message that we need to look after the marine estate to reduce the threats to the living things that call it home.

Special features of living things

Show students a slideshow of living things in the marine estate. Ask students to describe the unique features they see, such as the turtle has a shell and the shark has pointy teeth.

Students circle the identifying features of the animals in their *Marine Estate Agents Activity Book 1 - What's special about me?*

Threats to life story

Provide each student (or pair) with three counters (counters can be made of any item). You are going to read a short story (see following page) to the class, and they are going to move the counters around based on your story.

After the story, discuss with the class that the dog and the person are a 'threat' to the survival of the pied oystercatcher's chicks and that not all eggs or chicks survive to become adults.

Inquiry questions

How do living things change as they grow?

Resources

Presentation: Features of living things in the marine estate

Information sheet: Threats to Piper's egg

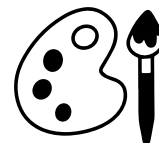
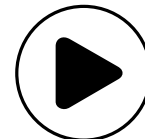
Marine Estate Agents Activity Book 1 - What's special about me?

Background topic

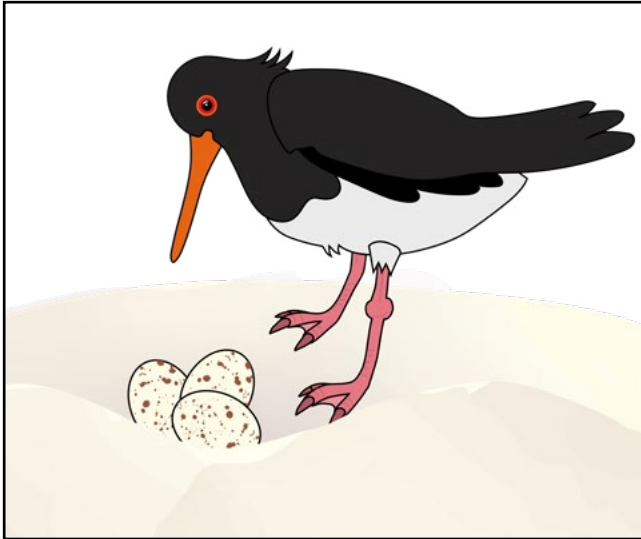
Ecosystems

Estimated time

1-2 lessons

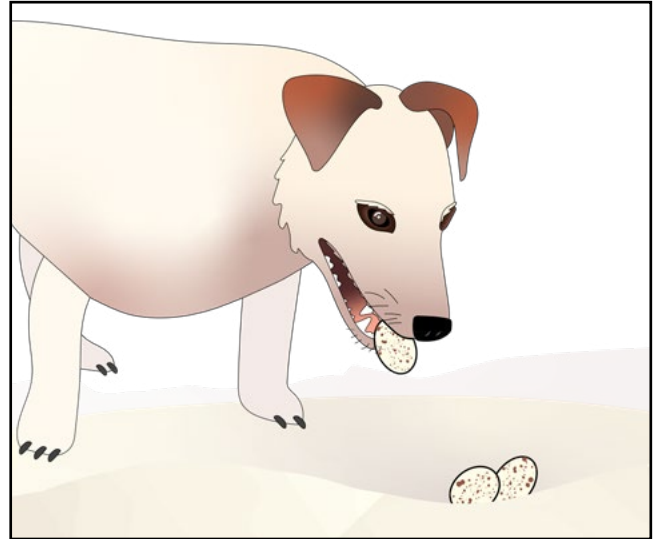


Threats to Piper's egg



Piper the pied oystercatcher lays 3 eggs on the beach.

ACTION: Take 3 counters. These are your 3 pied oystercatcher eggs.



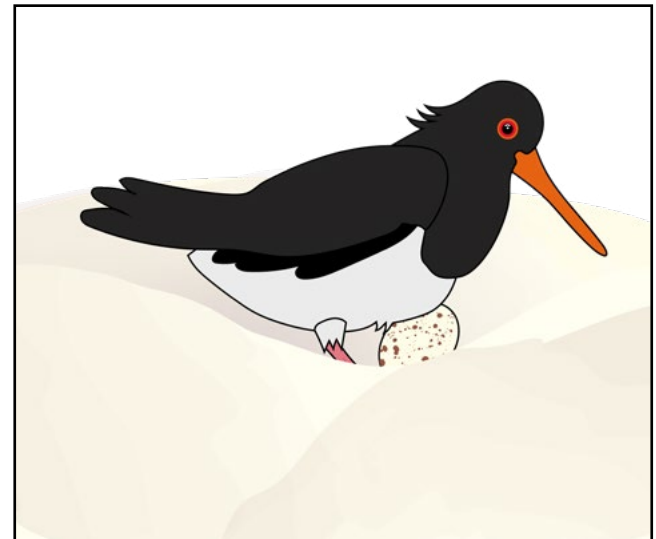
A family's dog wanders off and finds the eggs and takes one. Piper has only 2 eggs left.

ACTION: Remove 1 counter from your group of 3.



A person walks along the beach, ignoring the signs about the pied oystercatchers. They tread so close to the nest that one of the eggs is damaged. Only 1 egg remains.

ACTION: Remove 1 counter from the 2 that are left.



Can the chick inside that egg survive?

What does it mean for this family of pied oystercatchers?

If this happens to other oystercatchers all the time, what does it mean for the future of oystercatchers?

How many fish can I catch?

Overview

Students learn that fish are a broad category of animals and they have special features. Students generate an understanding of the need for fishing bag limits to keep wild fish stocks sustainable.

Description

Fish near me

Students are introduced to the category of animals that are fish. Fish live in the water, breathe through gills, have scales or skin, a tail and fins, and most of them lay eggs (with a few exceptions, such as the seahorse and some sharks that give birth to live young).

Go through the worksheet and identify the fish and other marine life, such as crabs, octopus, oysters and squid, that could be found near you. Tick off those fish that the class has heard of or seen.

Lead a discussion about the need for fishing bag limits – when we go fishing, should we take home everything we catch? Taking too many fish means we might have no more fish in the future, so we only take small amounts.

Fishing game

Preparation: Print and cut out a variety of marine life – enough to make up a number of bag limits (e.g. 2 x Estuary Perch, 5 x Australian Salmon, 1 x Bluefin Tuna, 5 x Mud Crab, 5 x Dusky Flathead, 10 x Snapper). Place a paperclip on each fish. Use a bamboo garden stake (or other classroom items) as a fishing pole and tie some string to it. Secure a strong, small magnet at the other end of the string with glue or tape.

Instructions: Divide students into pairs/threes. Each group is provided with a worksheet that has a chart of the bag limits for what they are allowed to catch. They must take turns to catch their bag limits by adding up the required catches and marking them off their sheet. Once caught, the fish is returned back to the ‘ocean’ so someone else can catch it.

Students use maths to determine how many fish they have to return to the ocean in their *Marine Estate Agents Activity Book 1 – Catching your bag limit*.

Inquiry questions

What are the external features of living things?

Resources

Worksheet: Fish near me

Worksheet: Fishing game

Fishing game materials:

- Marine life fishing cut-outs
- Paper clips
- Bamboo garden stakes
- String
- Strong, small magnets
- Glue or tape

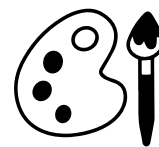
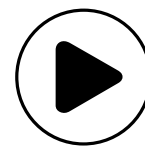
Marine Estate Agents Activity Book 1 – Catching your bag limit

Background topic

Fishing and boating

Estimated time

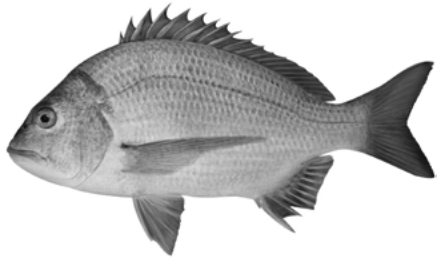
2 lessons



Fish near me

Here are some common marine creatures you might catch in NSW.

Have you seen any of these before?



Black Bream



Dusky Flathead



Estuary Perch



Snapper



Trevally



Whiting



Mullet



Australian Salmon



Crab



Octopus

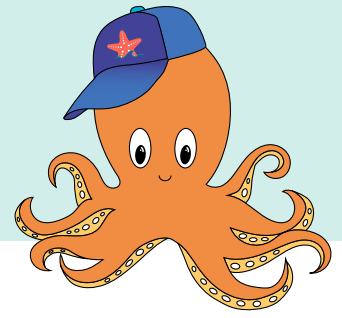


Oyster



Squid

Fishing game



Let's go fishing with Ollie! We can only catch our **BAG LIMIT** of fish.

A bag limit is the most amount of fish we can take home each day.

Make a tally mark for each fish you catch. Once you have reached your **bag limit** you can no longer make tally marks. You have to put your fish back in the 'ocean'.

Can you and Ollie catch your limit of fish?



Australian Salmon

Bag limit: 5

Tally of fish caught



Dusky Flathead

Bag limit: 5

Tally of fish caught



Estuary Perch

Bag limit: 2

Tally of fish caught



Snapper

Bag limit: 10

Tally of fish caught



Southern Bluefin Tuna

Bag limit: 1

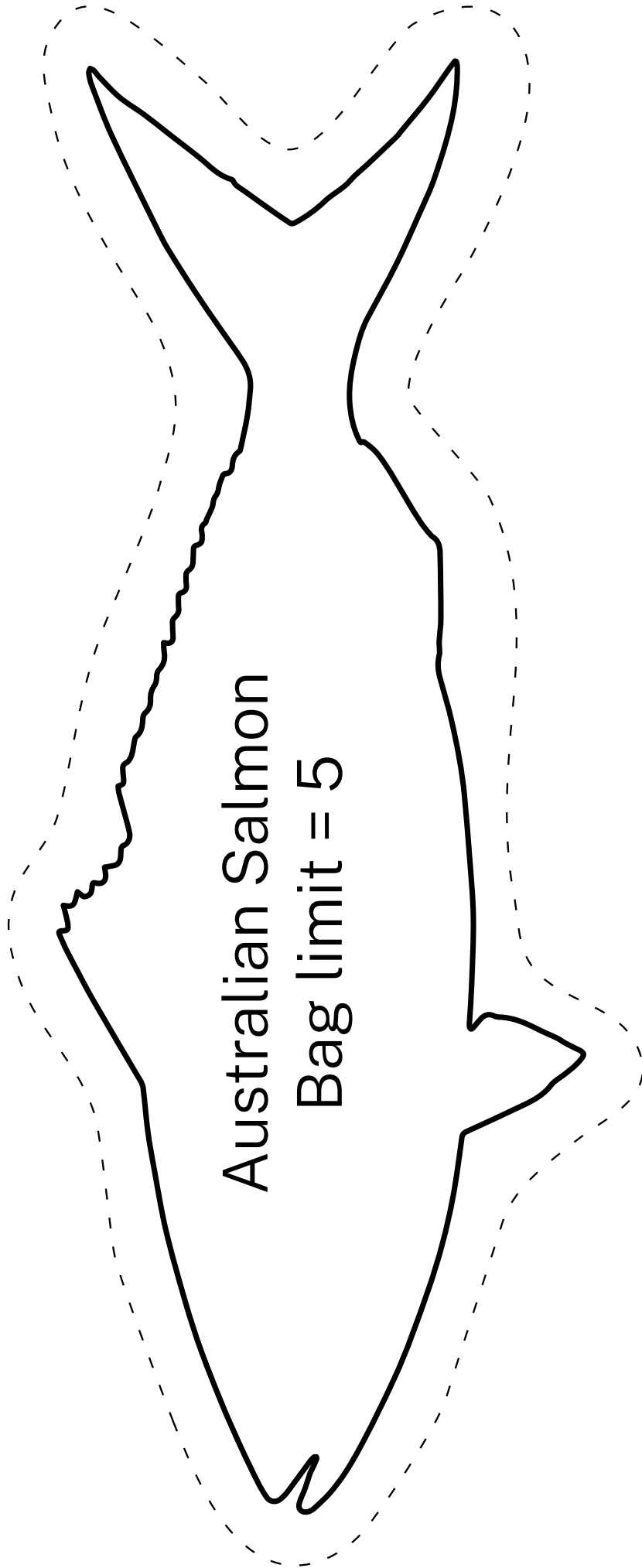
Tally of fish caught

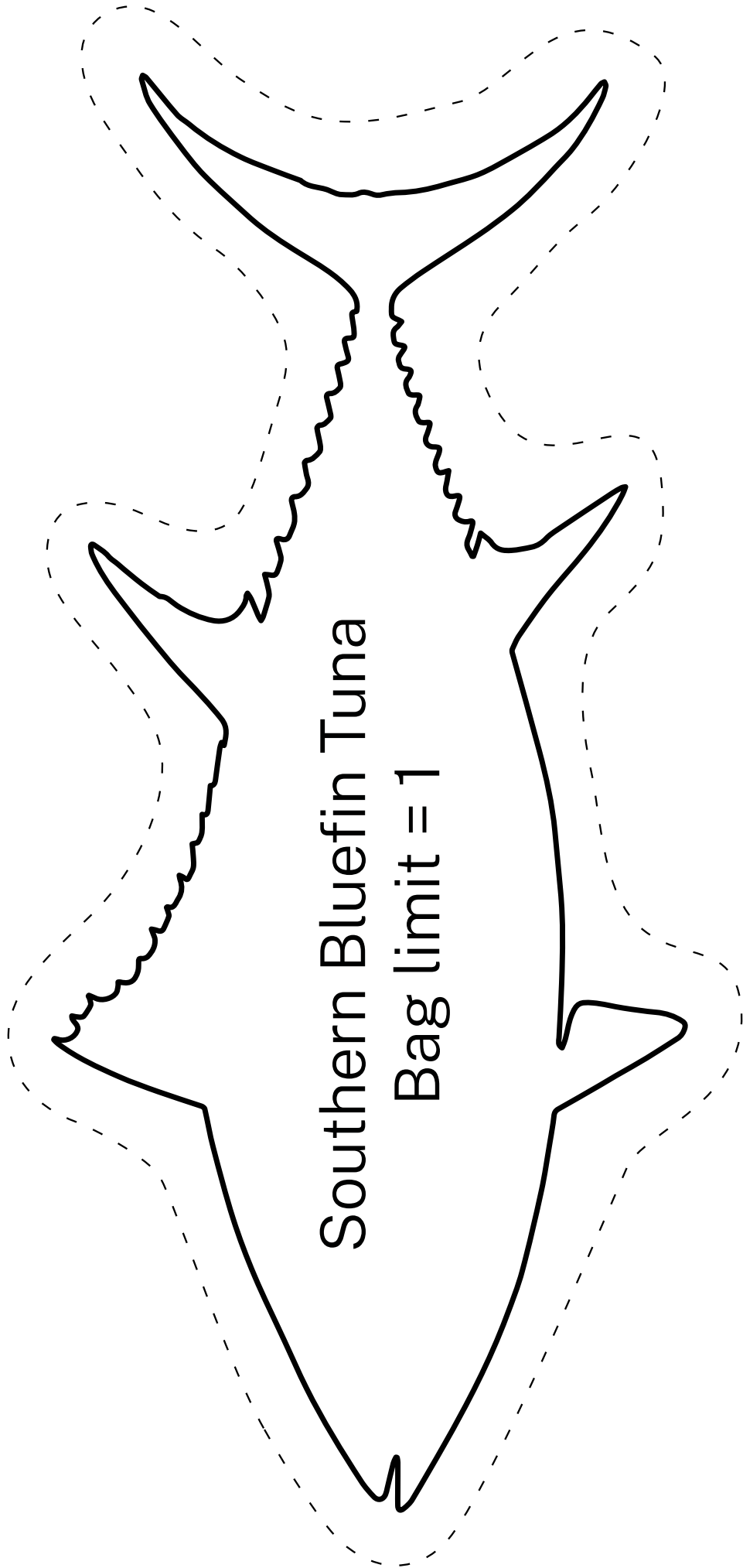


Mud Crab

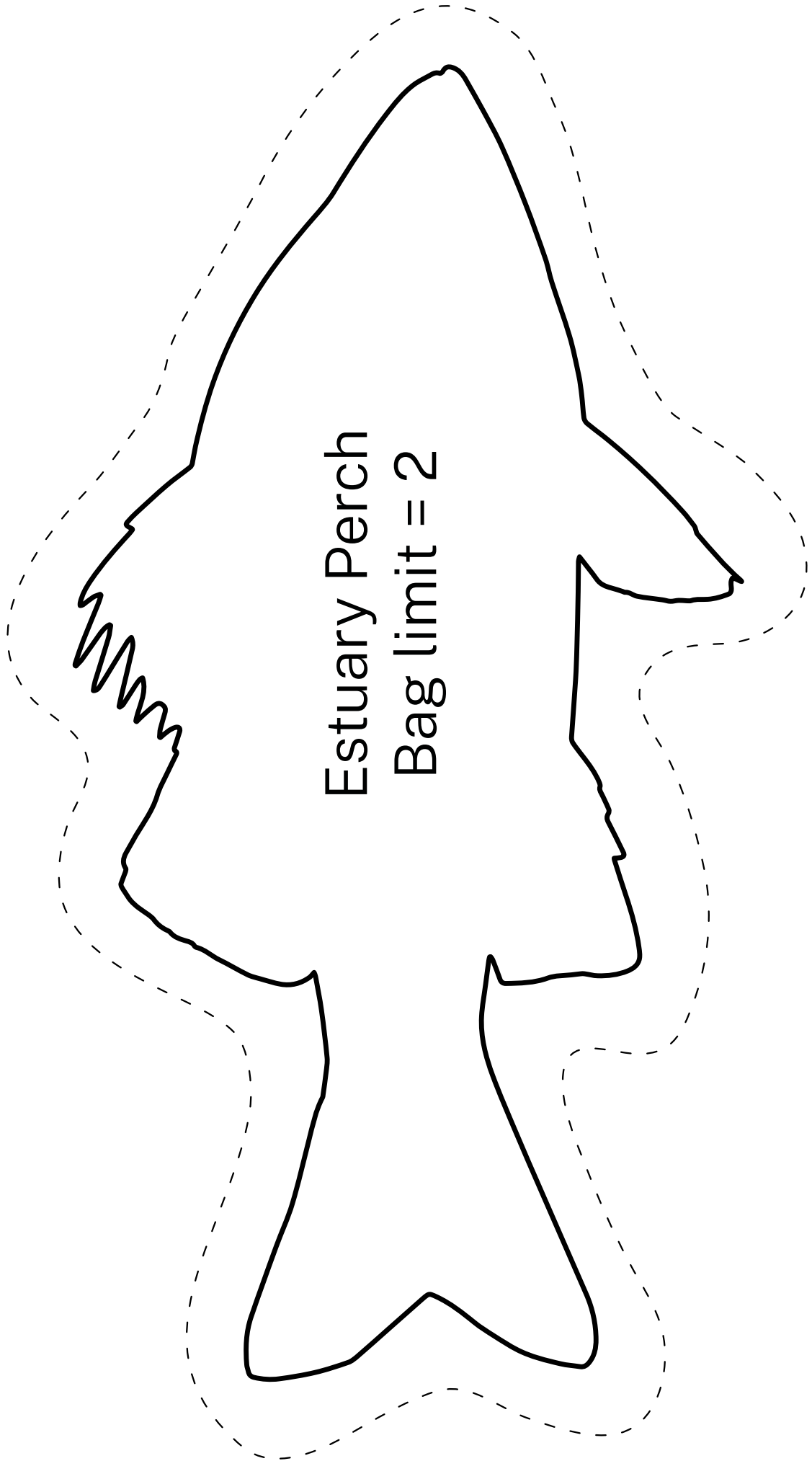
Bag limit: 5

Tally of crabs caught

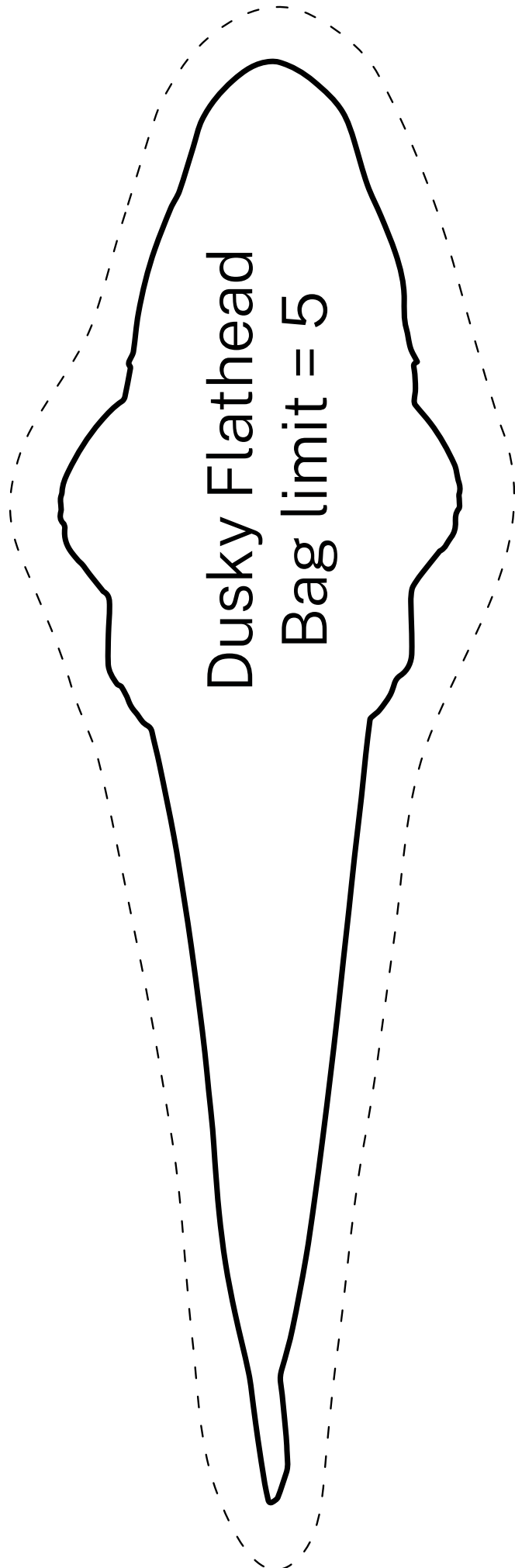




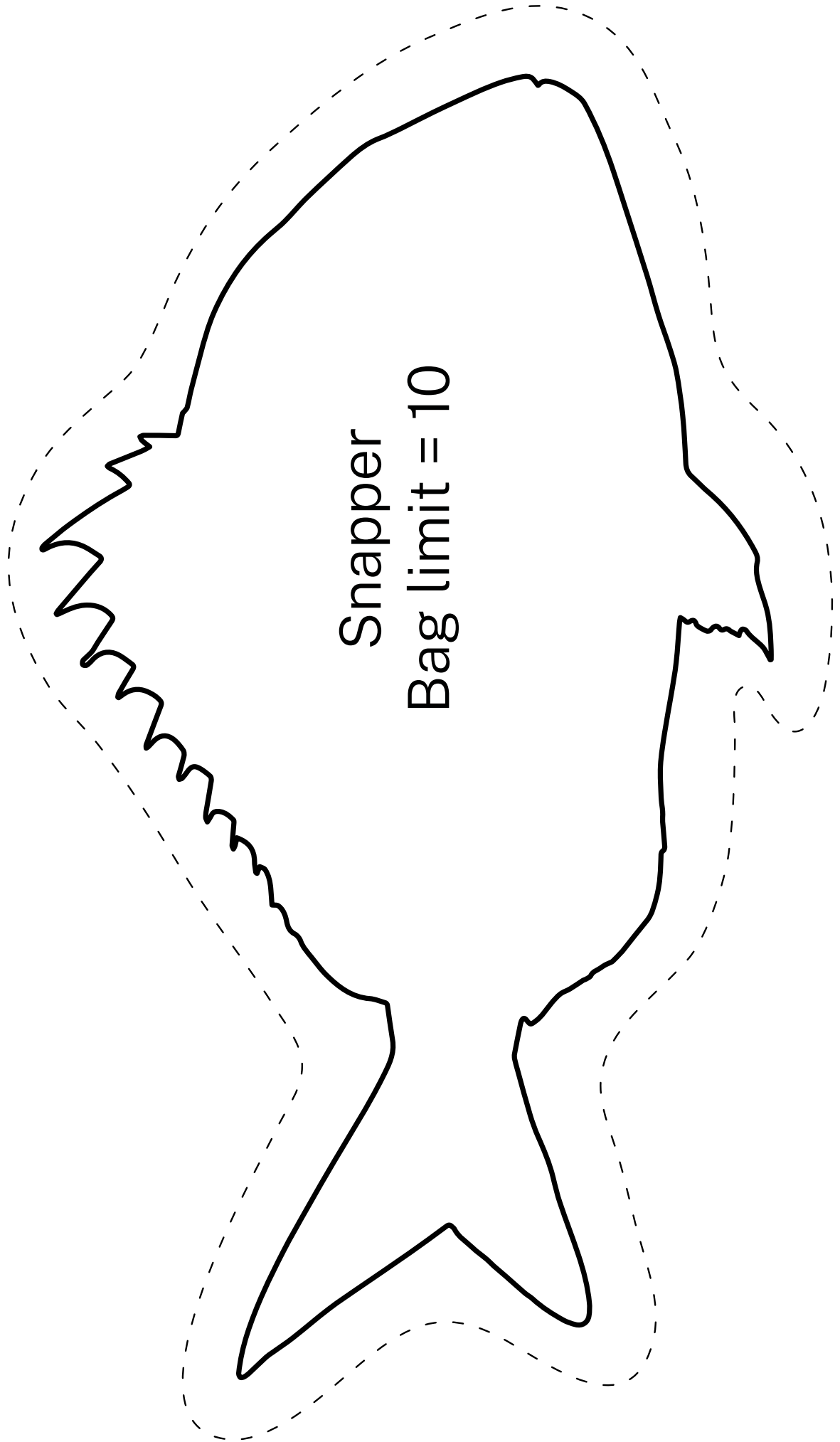
Southern Bluefin Tuna
Bag limit = 1



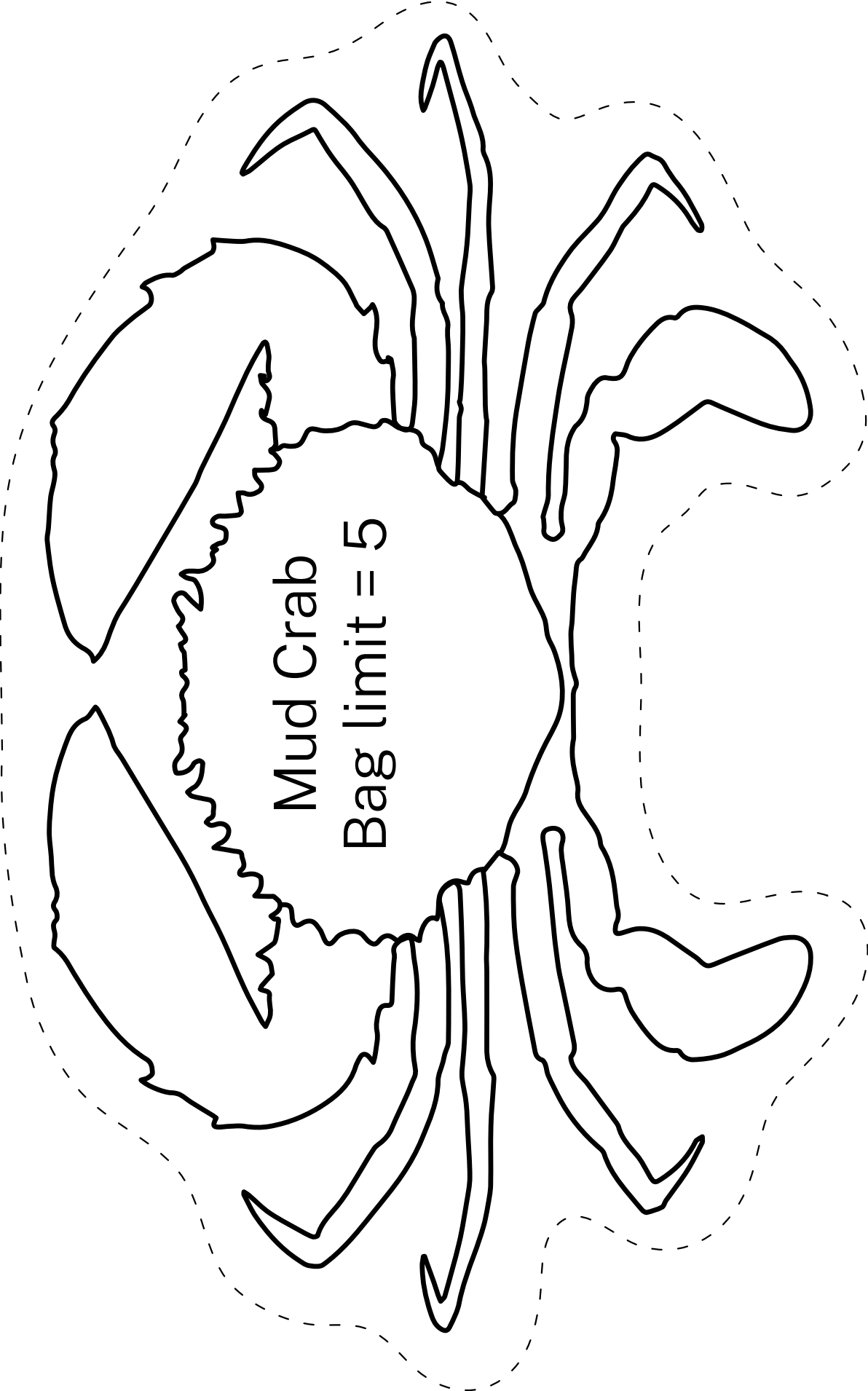
Estuary Perch
Bag limit = 2



Dusky Flathead
Bag limit = 5



Snapper
Bag limit = 10



Mud Crab
Bag limit = 5

Unit 3: Sea Country features

Content focus

Students look at the connection that Aboriginal people have with the coast (Sea Country) through storytelling. Students look at the indicators in nature that tell us when the seasons are changing.

Key vocabulary

Aboriginal people, Sea Country, sea tucker, seasonal calendar, seasons, weather, climate.

Excursion activities

The following excursion activities can be used to support this unit:

- A special place
- Treasure hunt

Resources

Book: *Sea Country* by Aunty Patsy Cameron and Lisa Kennedy. Check your school library or it can be purchased from the [Magabala Books](#) and [Koori Curriculum](#) online shops.

Worksheet: Seasonal calendar

Marine Estate Agent Workbook – Sea Country tucker, Seasonal changes

Assessment task

Students make some sea tucker creatures out of egg cartons. These are displayed in the classroom. Students can use the sea tucker mentioned in the book *Sea Country* or from the videos referenced in the activities.

Curriculum outcomes

HSIE: Geography

GE1-1 describes features of places and the connections people have with places

GE1-2 identifies ways in which people interact with and care for places

Cross-curriculum priorities

Aboriginal and Torres Strait Islander Culture and Histories

Concepts

Continuity and change: changes and continuities in their own lifetime and that of their families

Cause and effect: simple cause and effect in the past and present

Empathetic understanding: differences and similarities between individuals and families in the past and present

Skills

Comprehension: chronology, terms and concepts: respond by demonstrating active listening behaviour, through discussion and by recalling and retelling stories; distinguish between the past, present and future.

Use of sources: explore and use a range of sources about the past.

Perspectives: explore a point of view.

Empathetic understanding: recognise differences and similarities between individuals and families in the past and present.

Explanation and communication: use a range of communication forms (oral, graphic, written, role play) and digital technologies.

Connecting to Sea Country

Overview

Students look at the connection that Aboriginal people have with the coast (Sea Country) through storytelling.

Description

Sea Country

Read the book **Sea Country**, by Aunty Patsy Cameron and Lisa Kennedy, to the class. This book shares the stories and traditions of Aunty Patsy Cameron and her family's seasonal island life off the coast of Tasmania. The following classroom activity suggestions build upon messages and images from the story.

- There are many marine creatures mentioned in *Sea Country*. Go through the book again and write on the board all the marine creatures mentioned. Compare this kind of food gathering with how most Australians get their food. Use plasticine, Play-Doh or modelling clay to make models of the marine creatures.

Students colour in the marine creatures mentioned in the book *Sea Country* in their *Marine Estate Agents Activity Book 1 – Sea Country tucker*.

- What role do ancestors and Elders play in sharing the stories of Country with younger generations? Where in the book is there evidence of this taking place?
- Use the [First Languages Australia map](#) to find Flinders Island – the home of Aunty Patsy. Where is it in relation to your home? On the map, zoom in to find where you live. What is the first language spoken? If there is a story associated with that language, listen to it as a class. What did you learn?
- The children in the book tell us that they are 'free to hear Country speaking to us'. How does Country do this? What are they told by Country?
- Create a poster that shares the signs that Country gives about the weather and seasonal changes. How do you know when rain or bad weather is coming to your local area? What can you learn from local Indigenous people about the weather and seasons in your area?
- Find out more about mutton birds and the role they play in Aboriginal culture.
- Watch [Survival on the Coast](#) with Wayne Carberry and learn about some of the NSW south coast sea tucker.

Inquiry questions

What are the features of, and activities in, places?

How can we care for places?

Resources

Marine Estate Agents Activity Book 1 – Sea Country tucker

Sea Country by Aunty Patsy Cameron and Lisa Kennedy

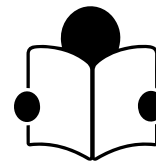
Video: [Survival on the Coast](#)

Background topic

Traditional use

Estimated time

1-3 lessons (depending on the number of suggested activities you deliver)



Seasonal calendar

Overview

Students look at the indicators in nature that tell us when the seasons are changing.

Description

Many seasons

Go through the four seasons of the calendar with your students. Ask them to describe what the weather is like at that time of year – cold, hot, wet, dry, stormy, dusty.

Aboriginal people have seasons too, but there are usually more of them. The D’harawal people, from south and south west of Sydney, have a [calendar with six seasons](#): Burran, Marrai’ang, Burrugin, Wiritjiribin, Ngoonungi and Parra’dowee. In their *Marine Estate Agents Activity Book 1 – Seasonal changes*, students draw an image to represent the weather experienced in each season on their worksheet.

There are many indicators in nature that can tell Aboriginal people when the season is changing. Lynne Thomas talks about one of these indicators in the video [Working with Nature](#). Looking back at the D’harawal calendar, identify each nature indicator for the different seasons. For example, lyrebirds calling, flying-foxes gathering or eels moving towards the ocean.

Make your own seasonal calendar

Ask students if they know of a nature indicator in your school grounds that tells you what time of year it is. For example, leaves changing colour, flowers blossoming or birds nesting.

As a class, record some signs in nature that you know indicate a change in the seasons.

Provide students with a homework task. Students talk with their parents/ guardians/ grandparents if they know of any signs in nature that the class can add to their seasonal calendar. They may like to look online with their parents to research at least one local nature indicator.

Back in the classroom, bring everyone’s homework together to create a single seasonal calendar. Use the template provided as a guide.

Extension activity

Over a long time, the climate can change and this affects our daily weather. Ask students what they think would happen in a drought when it is hotter and drier for longer, or if there is an extra-long rainy season. Would this change the calendar? Would this change the time that plants flower? Would this change the time that animals gather to mate?

Inquiry questions

What are the features of, and activities in, places?

Resources

Worksheet: Seasonal calendar

Marine Estate Agents Activity Book 1 – Seasonal changes

Video: [Working with Nature](#)

Background topic

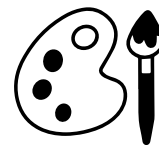
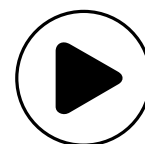
Traditional use

Climate change

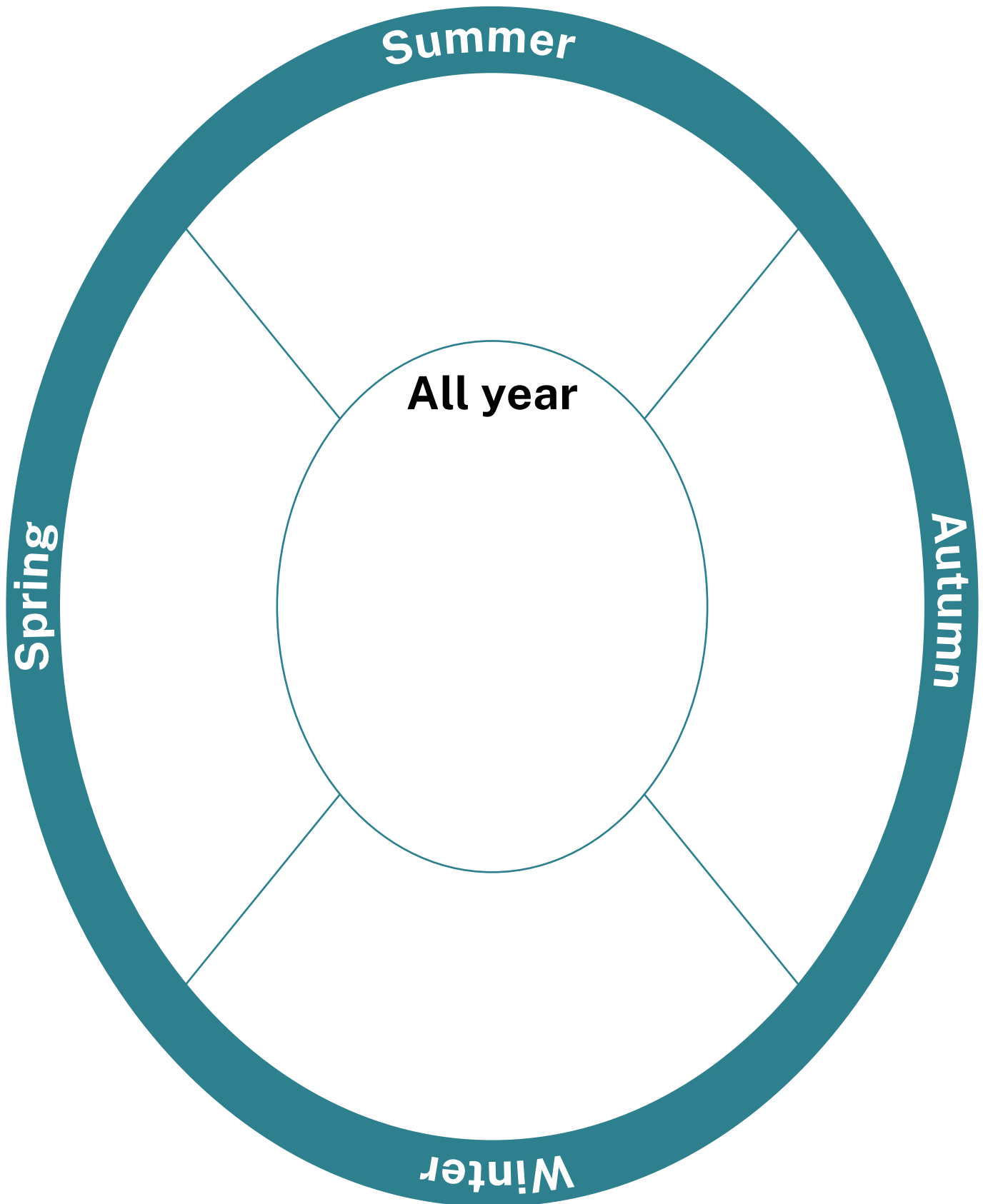
Estimated time

2-3 lessons

This activity could be added to over 12 months of following the seasons, listening to birds and other wildlife such as cicadas, watching the plants change and changes in the weather etc.



Seasonal calendar



Excursion suggestions

Excursions greatly enhance students' ability to experience the marine estate and to understand and connect with the environment. It is recommended to contact a local community group, tourism operator, [National Parks](#) or fisheries office as they run guided excursion activities in various locations along the NSW coastline.

The following excursion activities are optional and have been provided to help plan a school or class excursion to the marine estate. A sample risk management plan has been included to help facilitate the excursion process, however, only tasks/activities associated with a marine estate excursion have been included. You must follow your school's risk management procedures.

A special place

Visit a special place in the marine estate that is close to your school. If possible, invite someone to come down to talk about why that place is special to them. They could be someone who works in the area, a Traditional Owner, or a parent who wants to share their story. Explore their special place together and encourage your students to ask questions. At the end of the walking tour, start a discussion of the ways that the children could help to look after this place.

If suitable, have students find their own little special place when on the excursion. Have them sit quietly in their special place and use their eyes, ears and touch to 'connect' to that spot. When back in the classroom students can paint an image that represents that place. Display the artworks in the classroom and see how many are similar or different.

Quiet time

When exploring a coastal ecosystem ask students to sit by themselves (make sure there are at least two arm lengths between each person) and be very quiet.

- Instruct students to close their eyes and listen to the surrounding noises. What can you hear?
- Instruct students to look at something that is interesting. What did you see?
- Instruct students to take a deep breath. What did you smell?
- Instruct students to put their hands on the ground. What did you feel?
- Ask students: How did this activity make you feel?

Items on the beach

Take your class on an excursion to a local beach, or other natural spot in the marine estate. As you walk along you will find different items that are lying around – some are natural and others are man-made. Collect some different items and place them in a rubbish bag. Gather students in a circle and empty the contents of the bag on the ground.

Have a discussion about:

- What items belong on the beach?
- What items don't belong on the beach?
- How did they get on the beach?
- Are there any items that could harm wildlife?

Sort the items into groups – leave behind, rubbish, recycle. Create a tally sheet of the different items as they are sorted into groups. When back in the classroom, students create a picture graph showing the number of items against their groups.

As you continue your excursion, collect more rubbish using gloves and tongs. Place the rubbish in bins on the way back to school. Take photos of what you found along the excursion to use back in the classroom.

Treasure hunt

Before going on an excursion brainstorm a list of 'treasures' you think you might find. Make a checklist for students to take with them. Students identify the items on their Treasure Hunt checklist.

For the different treasures you find, have a chat with your students about where they came from – for example a shell was once home to an animal, seaweed was once living under water and provides a home for many tiny creatures. Even the animals have special places in nature.

Risk management plan

This risk management plan only includes tasks/activities that are specific to an excursion to the marine estate and does not include general risks such as food allergies or those related to transport to/from the excursion. It is intended as a guide only and no liability is accepted for its use. Please refer to your school's safety and risk management policies prior to undertaking field trips.

There can be limited mobile phone reception in some locations, so please make sure you have alternative means of communication.

Risk levels (as modelled from the Department of Education's Excursions Policy):

- 1 and 2 Extreme risk; deal with the hazard immediately
- 3 and 4 Moderate risk; deal with the hazard as soon possible
- 5 and 6 Low risk; deal with the hazard when able.

Task/activity	Hazard and associated risk	Risk level	Elimination or control measures	Who	When
Observing animals and plants	Bites and stings from insects, spiders, ticks and snakes (including allergies)	4	Ensure participation of students with known allergies has been considered, implement appropriate risk controls, e.g. a trained staff member is available to provide appropriate first aid and emergency response (e.g. adrenalin auto-injector, such as EpiPen®, for student with anaphylaxis).	Teachers	Before
		5	Ensure staff and students are aware of emergency response procedures.		
	Exposure to sun	5	Ensure students are wearing enclosed footwear and long pants and avoid walking through long grass.	All	Before and During
		4	Ensure students wear hats, shirts with sleeves and 30+ sunscreen.		
		4	Ensure students are provided with insect repellent on the day.		
		6	Don't touch animals or hazardous plants.		Teachers
		6	Carry a first aid kit which includes general use adrenaline auto-injector such as EpiPen®.		

Task/ activity	Hazard and associated risk	Risk level	Elimination or control measures	Who	When
Walking in a marine park or other protected area	Uneven ground surfaces, bites and stings, exposure to sun, wind, rain and dehydration	4	Notify Sea Rangers of expected arrival and departure times, number of participants and students with medical conditions.	Coordinating Teacher	Before
		3	Identify participants with known medical conditions and ensure appropriate medication/treatment is available.		
	Allergies to insects, reptiles and plants	3	Ensure participation of students with known allergies has been considered and implement appropriate risk controls (e.g. trained staff member can apply first aid such as EpiPen® for anaphylaxis).	Teachers	
	Becoming lost or isolated from the group	4	Ensure staff and students are aware of emergency procedures, including knowing the symptoms of heat exhaustion/stroke.		
	Change in weather conditions	6	Check weather forecast on day of excursion. Do not undertake physical activity in hot weather		
		5	Emergency plans communicated for dealing with potential incidents.		
		5	Carry a first aid kit.		
		5	Sea Ranger staff to lead the walk. Adult supervision at the front and back to keep the group together.		
		3	Ensure all participants carry water bottles. Take extra water to refill water bottles.		
		4	Staff carry insect repellent and additional sunscreen and ensure rest breaks are taken in the shade.		
		5	Wear enclosed footwear suitable for walking, clothing to protect arms and legs and suitable for changing weather conditions.		
		5	Wear hats, shirts with sleeves and sunscreen while outdoors. Seek out shade wherever possible to avoid heat exhaustion.		

Glossary

Aboriginal and Torres Strait Islander people: the original inhabitants of Australia.

Bag limits: the maximum number of fish or invertebrates legally able to be taken per person per day.

Beach: a landform along the coast of an ocean, sea, lake, or river.

Climate: the average weather conditions in a place over 30 years or more.

Coastal: where the land meets the ocean.

Environment: all aspects of the natural environment, including land, air, water, flora and fauna, as well as the human environment (both Indigenous and non-Indigenous cultural and built heritage).

Estuary: where the freshwater from a river or creek meets the saltwater of the ocean at locations such as bays and lagoons.

Fishing: the action of catching fish.

Habitat: a habitat is like a home. All the things that plants and animals need to survive can be found in their habitat.

Litter: any rubbish that has been improperly dumped or thrown away.

Management: the planning and actions that people take to look after something.

Mangrove: a species of tree that live in intertidal areas and have aerial structural roots and exposed breathing roots.

Marine estate: the NSW marine estate includes the ocean, estuaries, coastline, offshore islands and coastal wetlands, lakes and lagoons.

Natural: something's original state, as it was in nature.

Parks and reserves: places where the plants, animals, landforms and/or cultural features are protected or managed for conservation.

Pollution: when something is added to the environment that is harmful or poisonous to living things.

Population: the number of living things, such as people, plants or animals, living in a certain place.

Rubbish: rubbish and other marine waste is unwanted or unusable material that has been discarded. It is a major problem along our coastline and includes lots of plastics and metals that can harm wildlife.

Sea Country: coastal zone that holds spiritual significance for cultural practices and activities.

Sea tucker: plants and animals that are harvested from the coastal environment by Australia's Indigenous people.

Seagrass: flowering plants that live and reproduce entirely within sea water.

Seasonal calendar: Indigenous Australians often use seasonal calendars to anticipate the coming of seasonal food sources, breeding seasons and when plants are ready to harvest.

Seasons: a system of dividing time and marking its passing – Summer, Autumn, Winter, Spring. Indigenous Australian seasons are classified differently than the traditional four-season calendar. Seasonal cycles described by the various Aboriginal cultures differ substantially according to location.

Threat: a danger that something unpleasant might happen.

Weather: a specific event, like a rainstorm or hot day, that happens over a few hours, days or weeks.

Yarning circle: the practice of speaking and listening from the heart. The use of a 'talking piece' help to make it clear who is talking and who are listening.

References

Click, Tap or Scan the QR Codes

Websites



NSW Marine Estate



NSW Dept Primary Industries - Fishing



NSW Environment and Heritage



WilderQuest Campfire



Biodiversity Sustainability Action Process



Geography Teachers Association NSW



Take 3 for the Sea

Videos



Rubber jellyfish



Survival on the coast



Working with nature

Activities



Conduct a Yarning Circle



First Languages Australia Map



D'harawal seasonal calendar



This is to certify that



is a Marine Estate Agent.

They have pledged to look after
the NSW marine estate and to
help others look after it too.





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Acknowledgements

We acknowledge we live and work on Country and Sea Country, which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters and we respect Aboriginal Elders, past, present and emerging. We celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to Country and Sea Country across NSW.

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Key contributors include:

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 - Department of Planning, Industry and Environment

Front cover photo: Moonee Beach Trail Munmorah State Conservation Area (John Spencer/DPE)

Back cover photo: Terrace Beach, Beowa National Park (John Spencer/DPE)

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