

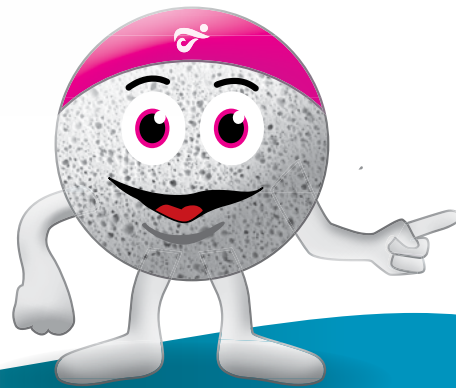
BEACH

WATER SKILLS FOR LIFE

ROCKY SHORES/ SANDY BEACHES

MODULE

8



8 LESSONS

LEVEL **3/4**

ROCKY SHORES/ SANDY BEACHES

DESCRIPTION

We participate in many different activities around the coastlines of our homes. Within these environments lie many dangers that we need to understand. The aim of this module is to learn about and understand the many dangers posed by these environments as well as understanding and practicing the safety knowledge associated with each area.

ACHIEVEMENT OBJECTIVES

Level 3

Personal Health and Physical Development

Safety and Risk Management: Students will identify risk and their causes and describe safe practice to manage these.

Movement Concepts and Motor Skills

Science and Technology: Students will participate in and describe how their body responds to regular and vigorous physical activity in a range of environments i.e. Hypothermia.

Healthy Communities and Environment

Rights, responsibilities, and law: Students will research and describe current health and safety guidelines and practices in their school and take action to enhance their effectiveness (i.e. water safety rules, how to recognise a rip or hypothermia).

Level 4

Personal Health and Physical Development

Safety and Risk Management: Students will access and use information to make and action safe choices in a range of contexts

Movement Concepts and Motor Skills

Science and Technology: Students will experience and demonstrate how science, technology, and the environment influence the selection and use of equipment in a variety of settings (i.e. tides, waves, wetsuits, life jackets).

Healthy Communities and Environment

Healthy Communities and Environment Rights, Responsibilities, and Laws: Students will specify individual responsibility and take collective action for the care and safety of other people in their school and in the wider community.

LEARNING INTENTION

- Investigate and describe New Zealand lifestyle factors that contribute to hazards and dangers at the beach
- Learn/develop strategies they can use to understand and minimize these dangers
- Read basic weather and wind maps

SUCCESS CRITERIA

Students can

- Conduct an inquiry into hazards and dangers that occur in the beach environment and find/develop possible safety practices to prepare for these
- Use the metService app/website to identify the weather/wind for the coming days

KEY COMPETENCIES

Participating and Contributing:

- Gaining understanding, being actively involved, and contributing within a group

Managing Self:

- Take responsibility for own learning
- Manage time effectively to complete inquiry learning process

Thinking:

- Connect prior experiences with new knowledge
- Think critically about strategies that can be used to minimise a hazard/danger at the beach

Using language, symbols and texts:

- Create a presentation to inform others about a hazard/ danger at the beach and strategies to minimise risk
- Create a resource that others can use to learn about the dangers posed in the beach environment
- Use online tools such as the metService website to assist with making safe choices when planning a beach trip

Relating to others:

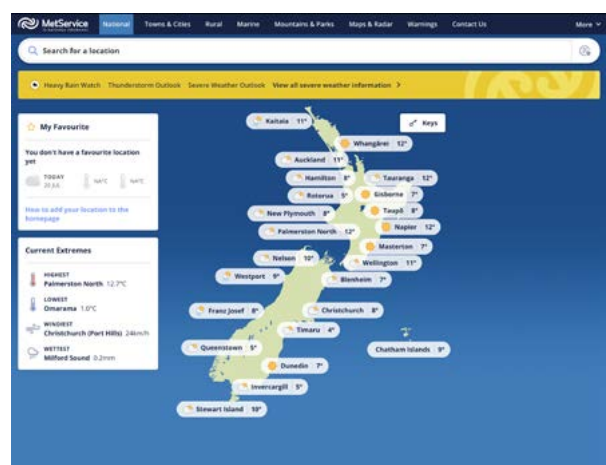
- Work in pairs and groups to conduct an inquiry

RESOURCES

- Enlarged picture of the local beach, A4 sized Venn Diagrams (1 between two students), [Metservice Weather Website](#)/App, internet, devices such as iPads or Chromebooks, presentation tools

ASSESSMENT ACTIVITIES

- Create a presentation about an identified hazard/ danger that can occur in a beach environment and identify strategies to minimise these



LESSON

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Tuning In

Show students an **enlarged picture** of a beach local to them which has a rocky shore/sandy beach. Facilitate a class discussion using the following questions as a guide to elicit students' prior knowledge about the activities they do in this environment.

- What do they do in this environment?
- What have they seen others do in this environment?
- What are the dangers that they know of?
- What have their family taught them about the hazards/dangers of this environment?
- Have they experienced these hazards/dangers?
- If they had experienced these hazards/dangers, what did they do?
- What are some of the strategies that they used to keep safe?



Activity: Venn Diagram

In pairs, ask students to compare and contrast the similarities and differences between the rocky shore and sandy beach environments. They can use the questions above to prompt their thinking. Once complete, ask students to share their ideas with the rest of the class. The teacher can record any possible dangers the students have listed for these environments and their corresponding strategies to assist with the students' inquiries for this module.

Activities at the rocky shore could include:

- Swimming/bombing
- Surfing/boogie boarding
- Collecting kaimoana
- Diving
- Fishing off the rocks
- Drag netting in the surf
- Surfcasting
- Playing touch on shore
- Beach launching or retrieving a boat
- Paddling a waka ama

Dangers they need to learn about

- Rips
- Waves
- Tides
- Wind (Hypothermia)
- Walking across the rocks
- Rocks
- Dragged or dumped on rocks
- Slipping off rocks
- Taking too much kaimoana
- Holes/Sand bars

Strategies

- Knowing how to read weather and wind maps
- Knowing how to identify rips and what to do if caught in one
- Knowing about wave action and set waves
- Knowing how to read sets of waves and where waves are breaking
- Never diving alone
- Knowing when the tides are (rock fishing)
- Swimming between the flags

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Finding Out/ Sorting Out

Introduce the inquiry questions: What dangers are present in the beach environment? How do we keep ourselves safe before, during and after activities in that environment?

Discuss the hazards/ dangers discussed in the previous lesson and explain that students must choose one of these to investigate further. Ask the students to form groups of two or three to conduct the inquiry together with. Encourage each group to try to choose a different area to investigate to insure widespread coverage – allowing each group to share a different inquiry topic to the class than their peers – resulting in distributed knowledge sharing (the teacher could write each danger on a piece of paper

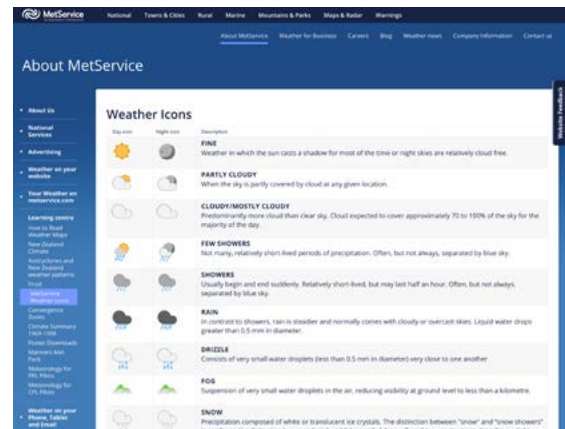
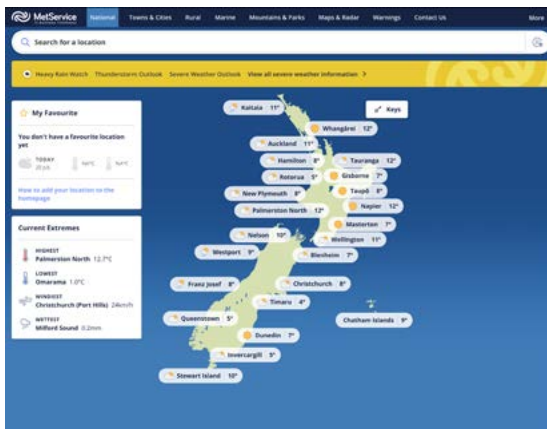
and distribute through a lucky dip type system if desired). **Ask students** to develop questions specifically related to their chosen danger/ hazard to investigate.

Examples of more specific questions:

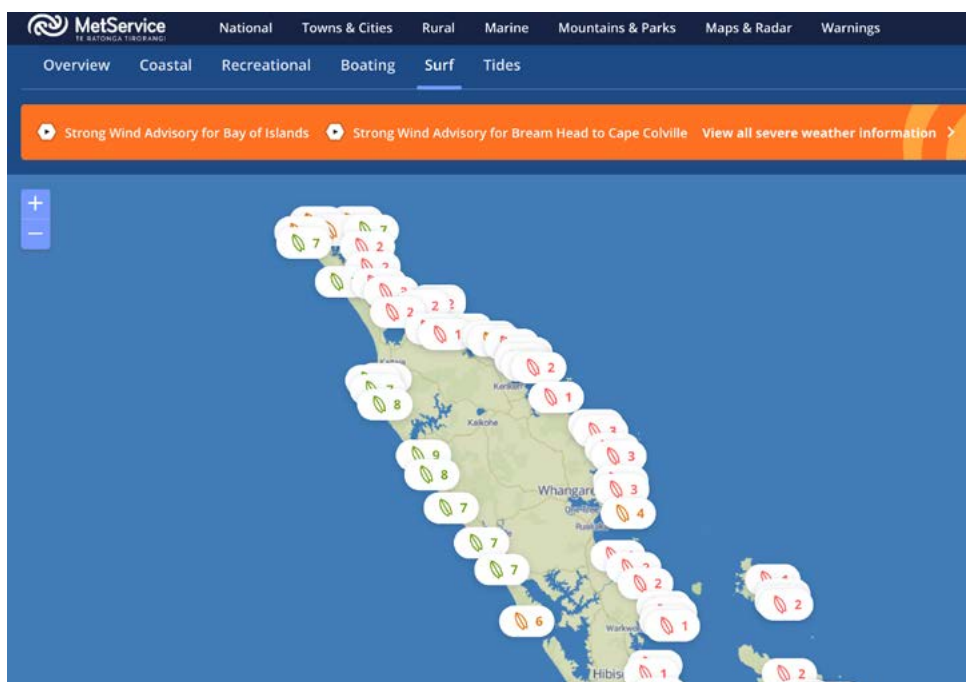
- How does the sun change our skin?
- What is a rip?
- What causes a rip?
- What can people do to survive a rip?
- How can people avoid rips?

Activity: Reading the Weather

Explain to the students that being able to read weather maps is an important life skill particularly when planning a trip to the beach. **Ask the students:** How can reading weather maps help us when planning a trip to the beach? How can this help to minimise potential hazards/dangers we may encounter at the beach? **Show** the students the [Metservice Weather Website](#) and discuss the [Weather Icons Key](#).



Use the information on the metService website to predict what the conditions will be like at the beach. **Show** the students the [Marine Surf](#) area of the website and see if our predictions match what's on the site. **Discuss** how people could use this website to minimise risks when planning a trip to the beach.



Researching & Collecting Relevant Information

Students to organise their own way of collecting and sorting information taking into account the following:

- Tools we will use to research
- People we can ask for help
- Where we will keep our research
- Possible ways we will present our research

Once students have collected research, they must sort through it using the following questions as a guide:

- What information helps answer my questions?
- Do I need to find out more information to answer the question?
- What are my questions now?
- How have they changed?
- What changes do I need to make to my inquiry?

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Going Further

Creating a presentation and presenting their learning

Students must decide how they will present their inquiry to the class.

Possible presentation formats include google slides, prezi, video, infographic, poster...

The teacher and students must co-construct a criteria that all presentations need to have to make sure the students have a clear understanding of what is expected of them.

Students spend time creating their presentations using the following guiding questions:

- What information is important to share?
- Have I answered all the questions to answer my inquiry?
- Have I checked to see if my presentation meets the success criteria?

Students present their inquiry presentation to the class and wider school (ie. in other classrooms or assembly).

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Making Conclusions/ Taking Action

As a class, discuss overall learning that has been achieved as a result of the inquiry and further actions that can help themselves and others.

Ideas for further actions:

- Trip to the beach to practise strategies in a real world environment
- Develop resources (i.e. videos, website, info cards) to help others know the dangers that can occur at the beach and possible strategies to minimise these