BEACH

WATER SKILLS FOR LIFE

ROCKY SHORES/ SANDY BEACHES

MODULE

8

8 LESSONS

LEVEL 1/2

Water Skills for Life

SUPPORTED BY

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He Kaupare. He Manaaki He Whakaora.

prevention. care. recovery

Water Safety NEW ZEALAND

BEACH
WATER SKILLS FOR LIFE

MODULE 8
LEVEL1/2

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 1

Health and Physical Education

Personal Health and Physical Development

Safety and Risk Management: Students will describe and use safe practices in a range of contexts and identify people who can help.

Movement Concepts and Motor Skills

Challenges and Social and Cultural Factors: Students will participate in games and activities and identify environments where children can play safe.

Healthy Communities and Environment

Community Resources: Students will identify and discuss hazards in their homes, school and local environment and adopt simple safety practices.

English

Processes and strategies

Students will: Acquire and begin to use sources of information, processes, and strategies to identify, form, and express ideas – **Indicators:**

- Has an awareness of the connections between oral, written, and visual language when creating text

Ideas

Form and express ideas on a range of topics - Indicators:

- Forms and expresses simple ideas and information, usually drawing from personal experience and knowledge
- Begins to support ideas with some detail

Level 2

Health and Physical Education

Personal Health and Physical Development

Safety and Risk Management: Students will identify risk and use safe practices and basic risk-management strategies.

Healthy Communities and Environment

Rights, responsibilities, and law: Students will contribute to and use simple guidelines and practices that promote physically and socially healthy classrooms, schools, and local environments.

English

Processes and strategies

Students will:

Select and use sources of information, processes, and strategies with some confidence to identify, form, and express ideas – **Indicators**:

- Shows some understanding of the connections between oral, written, and visual language when creating texts

Ideas

Select, form, and express ideas on a range of topics – **Indicators:**

- Forms and expresses ideas and information with reasonable clarity, often drawing on personal experience and knowledge
- Begins to add or delete details and comments, showing some selectivity in the process

Level 1&2

Science

Nature of Science:

Investigating in science

- Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models

Communicating in science

- Build their language and develop their understanding of the many ways the natural world can be represented

Living world:

Life processes

- Recognise that all living things have certain requirements so they can stay alive

LEARNING INTENTION

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- Understand hazards at the beach
- Learn about the dangers that are present in the various coastal environments (i.e. rocky shore, sandy beach)
- Identify and practise strategies they can use to understand and minimize these dangers

SUCCESS CRITERIA

Students can

- Identify hazards/dangers in each coastal environment
- Discuss their understanding about how to minimise these dangers when going into the different environments
- Practise and use some of these strategies to ensure they can safely conduct activities or mahi in these environment

KEY COMPETENCIES

Participating and Contributing:

- Contribute ideas to class discussions

Managing Self:

- Complete activities in a timely manner
- Listen carefully to instructions

Thinking:

- Relate new information to prior knowledge
- Apply simple safety strategies to hypothetical situations related to the beach

Using language, text and symbols:

- Create a poster explaining a danger and its corresponding safety strategies

Relating to others:

- Work nicely with a peer towards a common learning goal

RESOURCES

- Internet, Apple TV/ Chromecast or digital display board, enlarged picture of the local beach, Large Venn Diagram, image of wave sets, images of different types of waves, tides diagram, metservice tides chart, paper for rocks activity, sandbar image, poster paper and other equipment for making the poster ie felts, pens

ASSESSMENT ACTIVITIES

- Create a poster highlighting a danger people face when visiting the rocky shore and/or sandy beach environments, and strategies we can use to minimise the danger

LESSON 1

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

Add students' responses to a Venn Diagram to compare how these environments are the same and different.

Activities at the rocky shore could include:

- Swimming/bombing
- Surfing/boogie boarding
- Collecting oysters, kina, pāua, mussels (kaimoana)
- Diving
- Fishing off the rocks

Activities at the sandy beach could include:

- Swimming
- Surfing/boogie-boarding/skim-boarding
- Collecting tuatua, pipi, paua, scallops, toheroa
- Drag netting in the surf
- Surfcasting
- Playing touch on shore
- Beach launching or retrieving a boat
- Paddling a waka ama

LESSON

2 Dangers & Strategies - Rip Currents

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Class discussion: Explain to students that rips are strong currents of water that go out to sea. Ask the students: What do rips look like? How would we know if there was a rip at the beach we were about to swim at? Has anyone felt a rip before? How does it feel?

(hasn't this module been covered in rips and currents module?)

Identifying a Rip

Watch the video '**How to Spot a Rip Current**'. Ask the students to recall the different signs of a rip (e.g. dark patches of water, fewer breaking waves, rippled surface, anything floating beyond the waves such as sand). Make a list of students' responses on the class modelling book or whiteboard.

Strategies for Surviving a Rip

Watch the video '**How to Survive a Rip Current**'. Ask the students to recall the steps for surviving a rip current (e.g. stay calm, seek help by raising your arm and yelling out help if you can, float with the rip, swim parallel to the side of the rip towards the breaking waves, stay calm and try one of the other strategies again until you are rescued). Add students' responses to the class modelling book or whiteboard Emphasise the key message of swimming between the flags as the best strategy to avoid rips and to never swim against a rip.

Activity:

Poster/Role Play

Let students choose which activity they prefer to participate in to demonstrate their learning about rip currents.

- **Ask students** to draw a picture of a rip along with strategies to get out of a rip - ask students to label their picture and use arrows to demonstrate their understanding more clearly
- **Re-enact** being stuck in a rip - ask the students to verbalise their thinking to describe what they must do to get out of the rip

LESSON

3

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Dangers & Strategies - Waves

Class Discussion: Explain to the students that waves have an important job: moving sand to build up and break down the shore line. **Ask the students:** How do you think waves are formed? What do we use waves for (surfing/swimming)? Are waves dangerous? How are waves dangerous?

Wave Action

Introduce students to the 3 common causes of waves e.g. tidal, wind driven & tsunami. **Discuss** the causes of each of these waves. **Watch** the video '**How do Ocean Waves Work?**' **Discuss** how each of these wave types can impact on our time we spend at the beach e.g. when the waves are big and rough, the unpredictability of waves, when the waves are calm, when the beach is and isn't safe to be in, on or around.

Wave Sets

Explain to students that wave sets are a group of 3 to 10 waves that come along all of a sudden – varying in size and strength. **Show students** an **image** of what wave sets look like. Ask students: How does this image make you feel? Has anyone seen any wave sets bigger or smaller than the ones in the image? What do you think you need to be cautious of when going for a swim at the beach?

Discuss the following strategies with the class for keeping safe when swimming in the waves

- Never turn your back to the waves while in the water
- Swim with a responsible adult (over the age of 16)
- Don't swim too deep
- Read the waves – if they are too big or strong leave the water or move to shallower water
- Stay away from the rocks if the waves are rough

Activity:

Applying Strategies

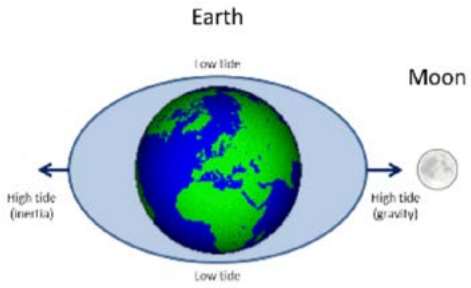
Give students a range of images of different types of waves - make sure there is a mixture of both dangerous and safe looking conditions.

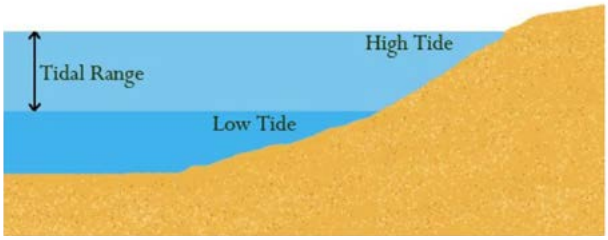
Ask students to say or write a few sentences describing what they can do to keep themselves safe while at the beach for each condition.

Praise students when they describe a strategy discussed by the class.

Danger & Strategies - Tides

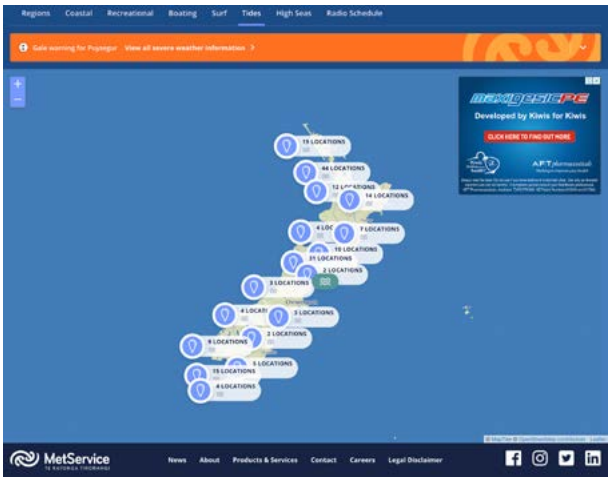
Class Discussion: Explain to students that they will be learning about the tides. **Ask the students:** What are tides? How do you know if it is high/low tide? What do you think causes tides to go in and out?





Show students diagrams of how the tides change and what low and high tide look like. **Discuss** the moon's gravitational pull and how this causes tidal changes.

Reading a tide chart: show students the Metservice tide chart and how to read them. Ask students: what is the tide like right now at our local beach? When is the next high/low tide?



Ask students: Why is it important to know when it is high/low tide?

Responses could include:

- To know when it is safe to launch the boat
- For driving on the beach
- To help predict the best conditions for catching fish
- To know when it's the best time to swim in the rock pools
- To know when it's best to participate in recreational activities

Danger & Strategies - Wind (Hypothermia)

Class Discussion: Explain to students that the wind can have a great impact on our safety at the beach. Ask the students: What parts of the beach can the wind affect? (waves, temperature, sand)

The wind and the waves

Briefly **discuss** previous learning about how the wind creates waves.

The wind and temperature

Ask the students: How does it feel to get blown by the wind? Does the wind feel warm or cold after a swim at the beach? Explain to the students that wind temperature feels colder than the air temperature around you. It is particularly important to warm up our bodies and shelter from the wind after a swim - especially on a cold day. The wind chill can cause our bodies to get hypothermia which is a dangerous medical condition caused by our bodies getting cold for too long. This condition can be fatal.

Strategies for preventing the wind from making us too cold/ treating hypothermia:

Explain to students that they can help prevent and/or treat someone or themselves from hypothermia in the following ways:

- Remove the person from the cold
- Remove wet clothing
- Cover with blankets/dry towels
- Give them a warm drink
- Seek help/medical attention

Activity:

Roleplay treating hyperthermia

Ask the students to get into pairs and explain to them that they will create a play to showcase how they would treat someone with hyperthermia. Pose the scenario: You and your friend are at the beach swimming. It's a cold and windy day and you notice that your friend is shivering/seems tired. What can you do to help your friend?

Enable the students to act out what they would do to help treat their friend's hypothermia. Look for students using strategies that have been taught.

Danger & Strategies – Rocks

Facilitate a class discussion about the rocks at the beach. Ask students: who has been to the rocks at the beach? What activities do you do near the rocks? What animals live around the rocks? Highlight that the rocks can be a fun place to fish, swim and explore - but we need to be aware of some possible dangers.

Discuss the Dangers:

- Slippery rocks
- Uneven rocks
- Being swept away by the waves/tide
- Crashing into rocks from the strong ocean waves

Ask the students: What strategies we could use to minimise the risks?

Some strategies could be:

- Be careful of slippery or uneven surfaces
- Check the tides to avoid being cut off from getting home
- Never go near the rocks alone
- Go rock fishing when the sea is calm
- Be aware of changes in weather

Activity:

Drawing the Dangers

Give students a piece of paper divided into 6 squares containing the four dangers listed above. Ask the students to draw a picture of the following dangers the rocks at the beach can pose. Let students come up with two more possible dangers they could encounter near the rocks at the beach.

Making Conclusions/ Taking Action

Discuss the overall learning achieved throughout the module. Make sure to write up a list of all of the areas covered during the module so students can use this to select an area for the following assessment task.

Assessment Task:

Ask the students to choose one of the dangers explored throughout this module to make a poster of. The poster must contain key aspects of the possible dangers and strategies for minimising risk. **Ask the students** to present their posters to the class and display in the school or classroom.

Beach Trip:

A class trip to the beach would be the best opportunity for students to explore the range of conditions learnt about in this module. This will enable the students to apply their newly learnt knowledge and skills in a real life context which will assist with deeper learning.