SLSNSW Stage 3 Unit Outline

SURF LIFE SAVING
NEW SOUTH WALES

Unit Outline: Stage 3

Unit Overview

Beach and Ocean and Inland Waterways Primary School Series

The beach, coastline and inland waterways are a source of inspiration, a place of discovery and at times generating myths and uncertainties that can alter the confidence and ability to make informed safety decisions by those who are using the beach and waterways. Students will conduct daily investigation of the conditions of the beach to create a Beach Report for the class by collecting, analysing and recording data that is used by lifesavers to inform visitors to the beach of the forecasted and current conditions. The English multimodal unit is centred around the SharkSmart program busts myths about the management and co-existence with sharks in the aquatic environment.

Your students will discover how river systems form and how they reach the coast. Using "real-world" water safety scenarios depicted in different parts of a river system or coastline; students will need to create a strategy to manage the situation, remove the danger or risk and make the situation safe. Students will create a water safety

prevention strategy for the "real-world" scenario. The class exemplar will explicitly unpack the concept of "The Think Line" and view real life scenarios where this could have been executed.

This unit uses artefacts to give students to explore the scientific and mathematical knowledge of aquatic environments. The artefacts form the foundation of creating the class "Beach and Waterways Encyclopedia". This inquiry-based task allows students to discover the amazing and complex intricate features of aquatic flora and fauna. They will learn how to create scientific line drawings their artefact, conduct a measurement investigation and writing informative text in the style of a scientific document.

Focus: Beach, Ocean and Inland Waterways

Duration: 3 weeks

Key Messages

✔ FLAGS+
- **F** Find the red and yellow flags and swim between them,
- **L** Look for and read the safety signs,
- **A** Ask a lifesaver or lifeguard for safety advice,
- **G** Go swimming with an adult,
- **S** Signal for help when you get into trouble in the water
- **+** Dangers of rip currents

✔ If you are not sure if a marine creature or plant is a hazard, look from a distance and don't touch it

✔ Humans can use the aquatic environment to inspire research, creativity and innovation.

✔ The aquatic environment needs to be looked after so future generations can enjoy it.

Supplementary Learning

This unit can be delivered with Surf Lifesaving NSW incursion & virtual session programs. Further information on these programs is available here

About Surf Life Saving NSW

Surf Life Saving New South Wales (SLSNSW) is the peak water safety, drowning prevention and rescue organisation in NSW and one of the largest volunteer-based community service organisations in Australia. Today the organisation encompasses a range of diverse activities – lifesaving services, community education, surf sports, member development and training, all which contribute to the primary purpose to save lives and meet our target of zero preventable deaths and injuries on NSW beaches.

Why have we created this resource?

Our mission is simple; save lives, create great Australians and build better communities. In order to do this, we want to provide you, our schools, teachers and students with the best possible programs, resources and opportunities to engage with us and learn about water safety, the beach and coastal environments. This resource has been created to help you integrate beach and coastal safety information and broader water safety activities and our programs into your lesson plans in an easy and simple way. We want to ensure our communities understand beach and ocean safety, but we also want to make sure that we provide opportunities to do so in a fun, engaging and relevant way. We hope that this resource will support our mission to equip all communities with the confidence, knowledge, resources & tools to prevent drownings & create safe, fun, welcoming & enjoyable beach side experiences.

Creating a quality teacher resource

We understand the unique challenges that our teachers face and the difficulty in finding quality resources and content in line with the curriculum. In order to bring our teachers a quality resource that they can easily integrate into their classrooms we have utilized the expert skills of highly trained and experienced teachers to develop and build this resource. We will continue to annually review, amend and add to this resource and as part of this process we will value the feedback from all teachers. If you would like to provide your feedback, recommendations or comments regarding this resource please contact us at community@surflifesaving.com.au Thank you.

Opportunities to engage with SLNSW (Stage 3)

This unit outline includes opportunities to bring the content to life by engaging with one of our offered programs, depending on your school location and your availability, you can choose from a number of programs to suit your needs. For further information and assistance with any of the below please contact us at community@surflifesaving.com.au

Incursion Lifesaver at my School

Bring a lifesaver to your school via our "Lifesaver @ my school" incursion. Our primary school program will focus on keeping safe at the beach and near inland waterways through fun and interactive games and activities.

Virtual Session Beach & Ocean Explorers

Bring a lifesaver into your classroom via our virtual session.

In our Stage 3 virtual session "Ocean Myth Busters" your students will explore some of the greatest myths of the ocean and coast with a real lifesaver and learn about the amazing stories and events through history that have changed the way we know and understand the shore, the ocean and the animals that live within.

Find out more about these session by visiting https://beachsafetyhub.org.au/resources-sub-type/primary-schools/

Engage with your local SLSNSW area program

If your school is located in a coastal area there may be a local run program by one of our SLSNSW Clubs or Branches. You can always contact your local club to find out more or contact us and we can put you in touch with the right person.
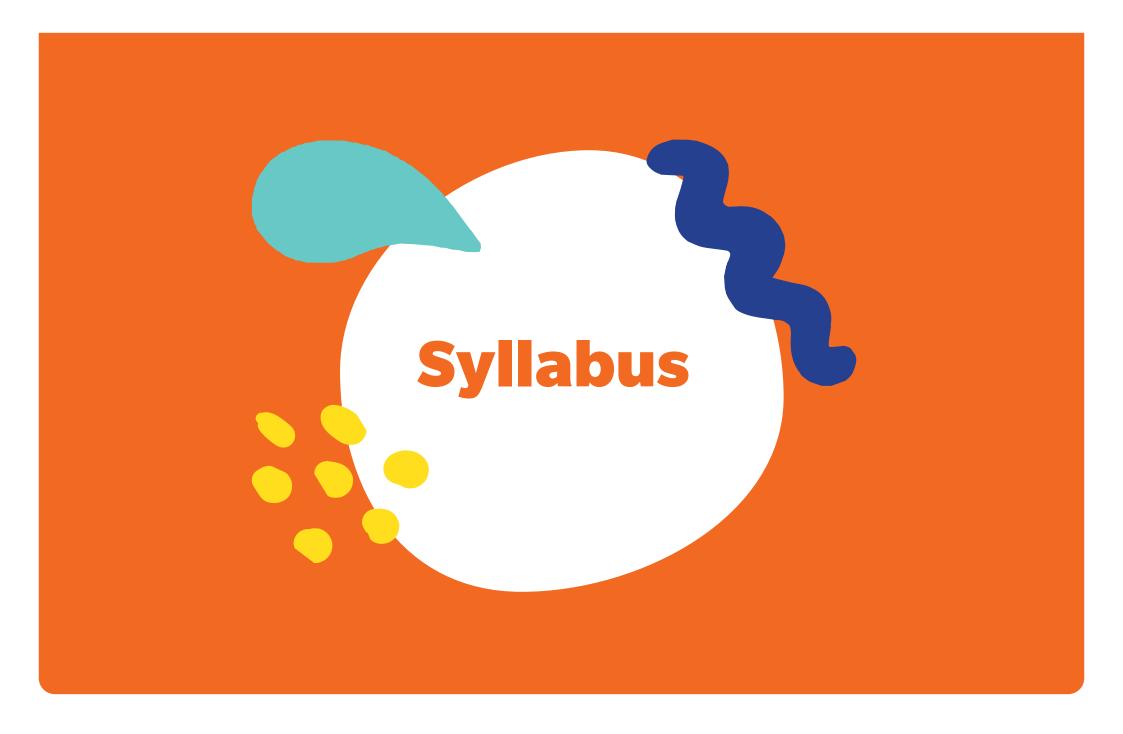
Contact the Community Education Team

Beach & Coastal Safety Resource Hub Home - Surf Life Saving NSW

✔ Primary School education programs and resources Primary Schools Resources - Surf Life Saving NSW

✔ Virtual sessions: further information and to make a booking Ocean Myth Busters (3-6)

02 9471 8000

community@surflifesaving.com.au

Syllabus

Outcomes

EN3 1A communicates effectively for a variety of audiences and purposes using increasingly challenging topics, ideas, issues and language forms and features

EN3 2A composes, edits and presents well-structured and coherent texts

EN3 3A uses an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts in different media and technologies

EN3 7C thinks imaginatively, creatively, interpretively and critically about information and ideas and identifies connections between texts when responding to and composing texts

Key Enquiry Questions

✔ How do we develop and apply contextual knowledge?

✔ How do we respond to, read, view and compose texts?

✔ How do we develop and apply language forms and features?

Content

Speaking and listening

Understand and apply knowledge of language forms and features

✔ use and describe language forms and features of spoken texts appropriate to a range of purposes, audiences and contexts

✔ use metalanguage to describe the effects of ideas, text structures and language features on particular audiences (ACELT1795) ⚙

Respond to and compose texts

✔ plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for defined audiences and purposes, making appropriate choices for modality and emphasis (ACELY1700, ACELY1710) ⚙💻👥

✔ participate in and contribute to discussions, clarifying and interrogating ideas, developing and supporting arguments, sharing and evaluating information, experiences and opinions (ACELY1709) 👥⚙

✔ identify and summarise key ideas and information from guest speakers, e.g. note-taking or using digital technologies 💻👥

Writing and representing

Develop and apply contextual knowledge

✔ explore and analyse the effectiveness of informative and persuasive devices in texts ⚙

Respond to and compose texts

✔ compose imaginative and informative texts that show evidence of developed ideas

✔ compose texts that include sustained and effective use of persuasive devices, e.g. texts dealing with environmental issues 🌱

✔ compose increasingly complex print, visual, multimodal and digital texts, experimenting with language, design, layout and graphics 💻

✔ use increasingly complex research data from print and digital sources to compose short and sustained texts ⚙💻

✔ use a range of software, including word processing programs, learning new functions as required to create texts (ACELY1707, ACELY1717) 💻

Outcomes

PD3 2 investigates information, community resources and strategies to demonstrate resilience and seek help for themselves and others

PD3 6 distinguishes contextual factors that influence health, safety, wellbeing and participation in physical activity which are controllable and uncontrollable

PD3 7 proposes and implements actions and protective strategies that promote health, safety, wellbeing and physically active spaces

PD3 9 applies and adapts self-management skills to respond to personal and group situations

Key Enquiry Questions

✔ How can I manage transitions and challenges?

✔ How do empathy, inclusion and respect have an impact on myself and others?

✔ How can we use strategies and tactics to create solutions to movement challenges?

✔ How can we work with others to build positive relationships during physical activity?

✔ How responsible am I for my own and others' health, safety and wellbeing?

✔ What actions positively influence the health, safety and wellbeing of my community?

Content

Health, Wellbeing and Relationships

How do empathy, inclusion and respect have an impact on myself and others?

✔ examine the influence of emotional responses on behaviour and relationships, for example: (ACPPS056)

- analyse situations where emotions can influence decision-making **S ⚙ ⚤**

- discuss how appropriate emotional responses can have an impact on relationships, e.g. empathy, excitement, happiness **S ⚤**

- explore how emotions can vary according to context and be unpredictable, e.g. loss and grief **S**

- explore contextual factors that influence the expression of emotions, e.g., peer pressure, cultural norms, gender expectations **S ⚤**

- explore scenarios to identify behaviours which make a scenario safe or unsafe, e.g. warning signs, secrets, threats, bribes, violence **S I ⚙ 🎓 ⚤**

✔ practise skills to establish and manage relationships, for example: (ACPPS055)

- explore reasons why relationships change and devise strategies to manage transitions, e.g. changing school, joining a new team, changing priorities, family separation **S ⚙ ⚤**

- demonstrate skills and strategies to establish new relationships, e.g. set boundaries, effective communication, share power, display empathy **S I ⚤**

- describe actions that support caring and respectful relationships **S ⚙ ⚤**

- recognise risk, abuse and neglect in relationships and ways to seek help **⚤**

Healthy, Safe and Active Lifestyles

How responsible am I for my own and others' health, safety and wellbeing?

✔ recommend appropriate actions to improve health, safety, wellbeing or physical activity issues within the school or wider community, for example:

- reflect on the impact of their choices and decisions on the health, safety or wellbeing of their community **S I ⚙ ⚤**

- suggest and practise action plans for emergency situations to ensure the safety of themselves and others, e.g. basic first aid, DRSABCD, asthma, allergies and anaphylactic reactions **S I ⚙ ⚖ 🎓 ⚤**

Content continued

✔ recognise how regular physical activity and movement situations promote enjoyment and positive outcomes for participants, for example:

- understand the contribution of different roles and responsibilities in games and physical activities **S ⚙ ⚥**
- discuss how safe participation in outdoor activities creates connections to natural and built environments (ACPPS059) **S I ⚙ ⚥ 🌱 ✿**
- explain how access to natural and built environments can help or hinder participation in physical activities **S I ⚙ 🎓**

What actions positively influence the health, safety and wellbeing of my community?

✔ investigate and adopt practices that help promote and maintain health, safety and wellbeing, for example:

- propose a personal network of trusted adults who could provide advice and support, e.g. parents/carers, teachers **I ⚖ ⚥**

✔ implement actions to maintain and improve the quality of an active lifestyle, for example:

✔ plan and practise assertive responses, behaviours and actions that protect and promote health, safety and wellbeing, for example: (ACPPS054)

- select and practise appropriate responses to promote safety in different water environments, e.g. survival swimming skills **S I M ⚙ 🎓 ⚥**
- identify situations where personal choices can influence their own and others' health, e.g. selecting and preparing healthy food, smoking, recycling, risk-taking **S I ⚙ ⚥**
- identify personal strategies and responses that model assertiveness and resilience in challenging situations, e.g. saying no if offered alcohol or cigarettes **S I ⚙ 🎓 ⚥**
- explore the emotions associated with feeling unsafe and propose strategies for seeking help and managing these feelings, e.g. fear, anger, feeling anxious **S I ⚙ ⚥**
- recognise and demonstrate safe behaviours and actions, e.g. developing a personal safety plan, not getting into cars with strangers **S I ⚙ ⚖ 🎓**

How does a healthy, safe and active lifestyle enhance connection with others?

✔ examine how a connection to the local community, environment or special places can influence community health and wellbeing, for example:

- participate in physical activities that explore community connections to develop intercultural understanding, including those of Aboriginal and/or Torres Strait Islander communities **I M ✋ 🏠 🌐 ⚥ ✿**

✔ acknowledge the cultural significance of physical activity, for example:

- explore Aboriginal and/or Torres Strait Islander understandings of special places and the connection of these places to physical activities **I ✋ ⚙ 🌐 ⚥**

✔ describe the place of water-based recreational activities in Australian society and how communities come together to enjoy water-based activities **I ⚙ 🌐 🎓 🦘**

PDHPE Prepositions

Focus on educative purposes

Take a strengths-based approach

Value movement

Develop health literacy

✔ functional dimension

✔ interactive dimension

✔ critical dimension

Include a critical inquiry approach

PDHPE Content Strands

Health, Wellbeing and Relationships

✔ This strand focuses on students developing the knowledge, understanding and skills important for building respectful relationships, enhancing personal strengths and exploring personal identity to promote the health, safety and wellbeing of themselves and others.

Healthy, Safe and Active Lifestyles

✔ This strand focuses on the interrelationship between health and physical activity concepts. Students develop the knowledge, understanding and skills to empower them to make healthy and safe choices and take action to promote the health, safety and wellbeing of their communities.

PDHPE Skill Domains

Self-management

Interpersonal skills

Movement skills

Outcomes

GE3 1 describes the diverse features and characteristics of places and environments

GE3 2 explains interactions and connections between people, places and environments

GE3 3 compares and contrasts influences on the management of places and environments

GE3 4 acquires, processes and communicates geographical information using geographical tools for inquiry

Key Enquiry Questions

✔ How do people and environments influence one another?

✔ How do people influence places and the management of spaces within them?
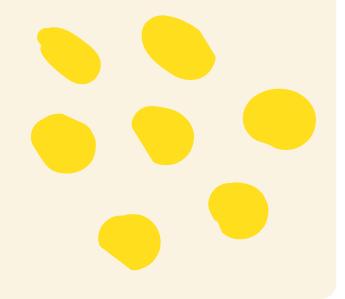
Content

Places are Similar and Different

Factors that change environments

✔ investigate the ways people change the natural environment in Australia and another country, for example: (ACHGK026, ACHGK027)

Environments shape places

✔ investigate how the natural environment influences people and places, for example: (ACHGK028)

Outcomes

MA3 1WM describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions

MA3 2WM selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations

MA3 8NA analyses and creates geometric and number patterns, constructs and completes number sentences, and locates points on the Cartesian plane

MA3 9MG selects and uses the appropriate unit and device to measure lengths and distances, calculates perimeters, and converts between units of length

MA3 10MG selects and uses the appropriate unit to calculate areas, including areas of squares, rectangles and triangles

MA3 14MG identifies three-dimensional objects, including prisms and pyramids, on the basis of their properties, and visualises, sketches and constructs them given drawings of different views

MA3 15MG manipulates, classifies and draws two-dimensional shapes, including equilateral, isosceles and scalene triangles, and describes their properties

Key Enquiry Questions

✔ How do I measure, order and compare objects using familiar metric units of length, area, weight and temperature? (Stage 2)

✔ How do I compare the areas of regular and irregular shapes? (Stage 2)

✔ How do I manipulate, classify and draw two-dimensional shapes, including equilateral, isosceles and scalene triangles, and describe their properties?

✔ How do I construct, estimate, measure and compare known and unknown angles using degrees?

✔ How do I use appropriate methods to collect data and construct, interpret and evaluate data displays, including dot plots, line graphs and two-way tables?

✔ How do I interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables?

✔ How do I critically evaluate data representations found in digital media and related claims?

Content

Two-Dimensional Space 1

Classify two-dimensional shapes and describe their features

✔ manipulate, identify and name right-angled, equilateral, isosceles and scalene triangles 🎓

✔ explore by measurement angle properties of squares, rectangles, parallelograms and rhombuses ⚙

✔ select and classify a two-dimensional shape from a description of its features 🎓

• recognise that two-dimensional shapes can be classified in more than one way, e.g. a rhombus can be more simply classified as a parallelogram (Communicating, Reasoning) ⚙

✔ identify and draw regular and irregular two-dimensional shapes from descriptions of their side and angle properties 🎓

• use tools such as templates, rulers, set squares and protractors to draw regular and irregular two-dimensional shapes (Communicating, Problem Solving) ⚙

• explain the difference between regular and irregular shapes (Communicating)

• use computer drawing tools to construct a shape from a description of its side and angle properties (Communicating, Problem

Solving) 💻

Data 1

Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)

✔ tabulate collected data, including numerical data, with and without the use of digital technologies such as spreadsheets 💻

✔ construct column and line graphs of numerical data using a scale of many-to-one correspondence, with and without the use of digital technologies

  • name and label the horizontal and vertical axes when constructing graphs (Communicating) 🎓

  • choose an appropriate title to describe the data represented in a data display (Communicating) 🎓

  • determine an appropriate scale of many-to-one correspondence to represent the data in a data display (Reasoning)

  • mark equal spaces on the axes when constructing graphs, and use the scale to label the markers (Communicating) 🎓

✔ consider the data type to determine and draw the most appropriate display(s), such as column graphs, dot plots and line graphs

• discuss and justify the choice of data display used (Communicating, Reasoning) ⚙️

• recognise that line graphs are used to represent data that demonstrates continuous change, e.g. hourly temperature (Communicating) 🌱

• recognise which types of data display are most appropriate to represent categorical data (Communicating)

Describe and interpret different data sets in context (ACMSP120)

✔ describe and interpret data presented in tables, dot plots, column graphs and line graphs, e.g. 'The graph shows that the heights of all children in the class are between 125 cm and 154 cm' 🎓

  • determine the total number of data values represented in dot plots and column graphs, e.g. find the number of students in the class from a display representing the heights of all children in the class (Problem Solving, Reasoning)

  • identify and describe relationships that can be observed in data displays, e.g. 'There are four times as many children in Year 5 whose favourite food is noodles compared to children whose favourite food is chicken' (Communicating, Reasoning) 🎓

• use information presented in data displays to aid decision making, e.g. decide how many of each soft drink to buy for a school fundraising activity by collecting and graphing data about favourite soft drinks for the year group or school (Reasoning) ⚙️

Data 2

Interpret secondary data presented in digital media and elsewhere (ACMSP148)

✔ interpret data representations found in digital media and in factual texts 🎓💻

  • interpret tables and graphs from the media and online sources, e.g. data about different sports teams (Reasoning) 💻⚙️

  • identify and describe conclusions that can be drawn from a particular representation of data (Communicating, Reasoning) 🎓

✔ critically evaluate data representations found in digital media and related claims 🎓💻⚙️👥 ⚖️

✔ discuss the messages that those who created a particular data representation might have wanted to convey (Communicating) 🎓⚙️👥 ⚖️🦘

Outcomes

ST3-1WS S plans and conducts scientific investigations to answer testable questions, and collects and summarises data to communicate conclusions

ST3-2DP T plans and uses materials, tools and equipment to develop solutions for a need or opportunity

ST3-4LW S examines how the environment affects the growth, survival and adaptation of living things

Key Enquiry Questions

✔ How do physical conditions affect the survival of living things?

✔ How do the structural and behavioural features of living things support survival?

✔ How do components of digital systems interact with each other to transmit data?

✔ How do the components of digital systems connect together to form networks?

Content

Living World

Working Scientifically

Planning and conducting investigations

✔ identify questions to investigate scientific ideas

✔ plan and apply the elements of scientific investigations to answer problems

✔ manage investigations effectively, individually and in groups

Processing and analysing data

✔ employ appropriate technologies to represent data (ACSIS090, ACSIS107)

Researching and planning

✔ research, identify and define design ideas and processes for an audience

✔ develop, record and communicate design ideas, decisions and processes using appropriate technical terms

✔ produce labelled and annotated drawings including digital graphic representations for an audience (ACTDEP025)

✔ manage projects within time constraints

Growth and survival of living things

✔ describe how changing physical conditions in the environment affect the growth and survival of living things, for example: 🌱💻🎓📱

• Aboriginal Peoples' use of fire-stick farming ✋

• temperature of water in aquatic environments

✔ understand that scientific and technological knowledge is used to solve problems and inform personal and community decisions (ACSHE083, ACSHE100) **ScIT** ⚙✚

Adaptations of living things

✔ describe adaptations as existing structures or behaviours that enable living things to survive in their environment (ACSSU043) **ScIT** 🌱

✔ describe the structural and/or behavioural features of some native Australian animals and plants and why they are considered to be adaptations, for example: **ComT ScIT** 💻📱

Digital Technologies

Working Scientifically

Processing and analysing data

✔ construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data

✔ employ appropriate technologies to represent data (ACSIS090, ACSIS107)

Content

Using and Interpreting Data

✔ collect, store and interpret different types of data, for example: **ComT SysT** 💻⚖🌐▦

- using sensors to collect data

✔ use software to interpret and visualise data 💻👆

Digital Systems and Networks

✔ investigate internal and external components of digital systems that perform functions **ScIT** 💻

✔ explore how the main components of digital systems connect together to form networks that transmit data (ACTDIK014) **ComT SysT** ⚙💻▦

✔ identify and explain how existing information systems meet the needs of present and future communities, for example: **DesT SysT** 🌿⚖💻👥🐾

Teaching, Learning and assessment

Science, English, HSIE & Mathematics

Daily Task

Daily Beach Report 5x10-15 minutes

This is a duplicate task with Mathematics, HSIE and Science. You may want to have each student or pairs collect beach conditions data on the "Daily Beach Report". Students may present a report each day. You may also want to record the beach conditions data on the "Beach Conditions Data Recording Sheet" to find patterns of beach conditions, create graphs, tables and infer patterns.

✔ Name of Beach
✔ Air Temperature
✔ Water Temperature
✔ Wind Conditions
✔ Wave Height
✔ UV prediction
✔ How does it look?
✔ Why would you go or not go to this beach today?
✔ Forecast for tomorrow

Extension: purchase a school weather station; Teacher to create a spreadsheet to record school weather report data each day

Resources

✔ www.bom.gov.au - Bureau of Meteorology
✔ www.coastalwatch.com - webcam of a beach. Search words: webcam (name) beach/river
✔ www.willyweather.com.au
✔ www.magicseaweed.com
✔ Daily Beach Task Instructions and Report Template
✔ Beach Conditions Data Recording Sheet
✔ **Extension:** purchase a school weather station; Teacher to create a spreadsheet to record school weather report data each day

Teacher Resources:

✔ Dr Rob Brander (UNSW) Where do Waves Come From?
✔ Dr Rob Brander (UNSW) How do Waves Break?
✔ Dr Rob Brander (UNSW) The Beach Survival Guide
✔ Surfing Online Types of Waves (for surfing)
✔ Surf Life Saving NSW - Waves
✔ SLS Beachsafe
✔ The Beach Rat - 4 Simple Ocean Observations to Improve Your Surfing

Core Lesson 1 - 15-20 minutes

This is a duplicate task with Science and Digital Technologies.

Shared Text : Watch the introduction video as a class

Shark week for Schools virtual excursion - Debunking the Myths

Students are to construct notes using around 3 key ideas on the "What's the Big Idea" template.

Advise students these will be needed again for other tasks and other students are relying on their notes.

Resources

✔ What's the Big Idea template

Core Lesson 2 - 2x45 minutes

Shared Text : Shark week for Schools virtual excursion - Debunking the Myths

Shark speed dating: Think/Share/Pair about the key ideas in the video (1- 2 min) per interchange.

1. Split the class into 2 even groups.

2. Each group divides themselves into half. Make one circle inside the other for each of the groups. Students on the inside circle will record notes with the people they meet. The inside circle keeps the record of notes.

3. Dating questions:
   • Describe one thing you didn't know that you saw in the video.
   • What technology would be the most effective in monitoring sharks and keeping people safe at the beach? Why?
   (2 interactions)
   • What technology would you like to learn to use? Why?
   • Shark: Predator or friend? (2 interactions)

4. Split the inside circle into 4-5 equal groups. Then the outside circle joins one of the groups.

5. Students then collate the notes from the people on the inside circle in the group on the Shark Speed Dating Notes - A3.

6. Each group will present the findings the group has collated on the A3 template (try to get a different person in the group to present the findings for each question).

Display the A3 templates on the wall where students can refer to the discussions.

Writing task: Answer 2 of the Speed Dating Questions in full paragraphs.

Resources

✔ "What's the Big Idea" template
✔ "Shark Speed Dating Notes" template

Teacher preparation

✔ Photocopy one A4 copy of the "Shark Speed Dating Notes" template for half the class.
✔ Photocopy one A3 copy of the "Shark Speed Dating Notes" template

Homework

Read supplementary texts from other books and media relating to this lesson such as being safe at the beach and marine animals.

Core Lesson 3 – 20-30 minutes

Explicit Teaching: Flags and The Think Line

Explain the concept of:

✔ FLAGS acronym - Write the meaning of FLAGS in students notes

Watch the videos about rip currents and The Think Line

Discuss the following points as a class

✔ List the ways the ways you can prevent getting caught in a rip current
✔ Options for returning to shore
✔ Inquiry Task: Use scenario planning sheets with a list of resources for each scenario.
✔ In small groups; you will be given a scenario. You will need to present to the class in a format of your choice e.g. presentation, make a video or podcast, create an infographic:
  • A short description of the scenario
  • What are the risks to the victim, rescuer and bystanders?
  • How are you going to find assistance to help the victim?
  • What strategy are you going to use to bring the victim to safety? What assistance will you need?
  • What are the risks in bringing the person to safety?
  • Once the victim is safe, what will be the next thing you will do?
  • What other ways could you bring the person to safety?

Resources

✔ How to spot a rip
✔ How to survive a rip
✔ The Think Line
✔ Beach Safety Scenario Activity Sheets
✔ FLAGS acronym

STOP LOOK PLAN

FLAGS

Core Lesson 4 – 30-45 minutes

This is a cross KLA Project- Mathematics, English, Science, HSIE and PDHPE task

Mathematics Marine Encounters (Pre - Beach Profile and Hazards Encyclopedia Task): Students are given cut-outs from the "Mathematics Marine Encounters Resource Cut-outs".

There is a collection of species of marine life that could be used by students from a range of numeracy levels. There are 30 individual species (class set) for your students to investigate. The prints are NOT TO SCALE. You will need grid paper for this task.

Draw an outline of each species on the grid paper

✔ Calculate the length, width and area of the artefact to one hundredth of a centimetre
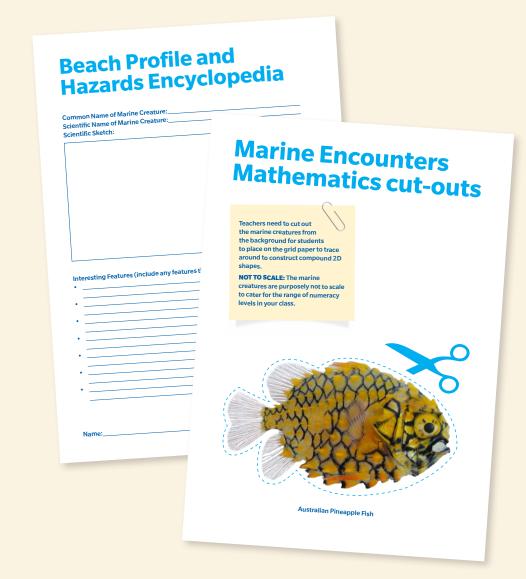
Potential methods:

✔ Create compound regular shapes, calculate area of each shape
✔ Measure with tape measure/ruler and estimate area
✔ Create compound regular shapes, cut out each shape and combine them to make a rectangle. Calculate the area of the rectangle

Class discussion: Students compare their findings based on the methods used for calculation.

Why would the same object have different calculations and different results?

Resources:

To be supplied by the teacher: grid paper

Beach Profile and Hazards Encyclopedia

Common Name of Marine Creature:_____
Scientific Name of Marine Creature:_____
Scientific Sketch:

Interesting Features (include any features t[...]

- • _____
- • _____
- • _____
- • _____
- • _____
- • _____
- • _____

Name:_____

Marine Encounters Mathematics cut-outs

Teachers need to cut out the marine creatures from the background for students to place on the grid paper to trace around to construct compound 2D shapes.

NOT TO SCALE: The marine creatures are purposely not to scale to cater for the range of numeracy levels in your class.

Australian Pineapple Fish

30-45 minutes

Compile an extra Daily Beach Report from a second beach

Compare the daily beach data

Teaching, Learning and assessment

Science, English, HSIE & Mathematics

Daily Task

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- ✔ UV prediction
- ✔ How does it look?
- ✔ Why would you go or not go to this beach today?
- ✔ Forecast for tomorrow

Extension: purchase a school weather station; Teacher to create a spreadsheet to record school weather report data each day

Resources

- ✔ www.bom.gov.au - Bureau of Meteorology
- ✔ www.coastalwatch.com - webcam of a beach. Search words: webcam (name) beach/river
- ✔ www.willyweather.com.au
- ✔ www.magicseaweed.com
- ✔ Daily Beach Task Instructions and Report Template
- ✔ Beach Conditions Data Recording Sheet

Teacher Resources:

- ✔ Dr Rob Brander (UNSW) Where do Waves Come From?
- ✔ Dr Rob Brander (UNSW) How do Waves break?
- ✔ Dr Rob Brander (UNSW) The Beach Survival Guide
- ✔ Surfing Online Types of Waves (for surfing)
- ✔ Surf Life Saving NSW - Waves
- ✔ SLS Beachsafe
- ✔ The Beach Rat - 4 Simple Ocean Observations to Improve Your Surfing

Homework

Read supplementary texts from other books and media relating to this lesson such as being safe at the beach and marine animals.

Task

You are a Marine Biologist who is making a presentation at the Annual Conference for Marine Scientists from across the world who want to learn more about the Shark Technology we use in Australia so they can use it in their own country.

Go to the sharksmart webpage. Pick ONE of the technologies to create your presentation for the conference. (You may want to allocate the resource cards)

You will need to include the following in your presentation:

✔ Name of the technology you are investigating.
✔ What are the tasks is the technology is designed to perform?
✔ How does the technology work? Include whether it has be used with other technologies.
✔ How what happens when a shark is detected using the technology?
✔ What are the benefits and issues with using the technology?
✔ How effective is the technology?

Resources

Use the "Shark Tracking Technology Inquiry and Resources" template to help you.

Shark Tracking Technology Inquiry and Resources

You are a Marine Biologist who is making a presentation at the Annual Conference for Marine Scientists from across the world who want to learn more about the Shark Technology we use in Australia so they can use it in their own country.

Go to https://www.sharksmart.nsw.gov.au/technology-trials-and-research webpage. Pick ONE of the technologies to create your presentation for the conference. You will need to include the following in your presentation:

• Name of the technology you are investigating

• What are the tasks is the technology is designed to perform?

• How does the technology work? Include whether it has be used with other technologies.

• How what happens when a shark is detected using the technology?

• What are the benefits and issues with using the technology?

• How effective is the technology?

(Use the Shark Tracking Technology Inquiry planning sheet to assist you in your research. Make sure you include videos, diagrams, pictures, maps to make your presentation interesting)

SURF LIFE SAVING
NEW SOUTH WALES

Name: _____

Core Lesson 2 – 60 minutes

Explicit Teaching: Rescue Safety

Shared Text Literacy task: Read the Rescue Safety Information Sheet

Model "Chunking" the text into manageable sections. Put a copy on the class board and work through chunking strategy

1. Highlight unfamiliar terms and find definition/ synonym for each word
2. For each paragraph, highlight in a different colour; key points and write the key point in the margin
3. Using the key points in the margin; write a summary of the text

Write the Acronym for the "4 P's of a Rescue" in your notes. This will be important for the next task.

In your book; answer the following questions in full sentences:

✔ What does "self-preservation" mean?
✔ Why wouldn't you perform a "swimming" rescue?
✔ If it is not safe to perform a rescue: list some strategies you could use to bring the victim to safety.
✔ Once the victim is safe; how could you help the situation?

Resources

✔ Shared Text: Rescue Safety Information Sheet
✔ "Chunking" instructions

Core Lesson 3 – 2 x 45 minutes

Inquiry Task: Use scenario planning sheets with a list of resources for each scenario.

In small groups; you will be given a scenario. You will need to present to the class in a format of your choice e.g. presentation, make a video or podcast, create an infographic:

1. A short description of the scenario
2. What are the risks to the victim, rescuer and bystanders?
3. How are you going to find assistance to help the victim?
4. What strategy are you going to use to bring the victim to safety? What assistance will you need?
5. What are the risks in bringing the person to safety?
6. Once the victim is safe, what will be the next thing you will do?
7. What other ways could you bring the person to safety?

Resources

Beach Safety Scenario Activity Sheet

Beach Safety Scenario

It is the school holidays! You and your two friends are going to the beach with your friend's mum and younger sister (3 years old). You have entered the water with your two friends onto the sandbar away from the red and yellow flags. After body surfing for about 20 minutes; an unexpected wave has carried your friend into a rip current. Your friend is scared and tries to swim back to shore. He is starting to get very tired.

What are the risks to the victim, rescuer and bystanders?
_____
_____
_____

How are you going to find assistance to help the victim?
_____
_____
_____

What strategy are you going to use to bring the victim to safety? What assistance will you need?
_____
_____
_____

What are the risks in bringing the person to safety?
_____
_____
_____

Once the victim is safe, what will be the next thing you will do?
_____
_____
_____

How could this event be prevented?
_____
_____
_____

Name:_____

SURF LIFE SAVING **NEW SOUTH WALES**

Play the tag game of Thapumpan (shark) as observed being played by little children at Cape Bedford in north Queensland.

Resources

Australian Sports Commission: Thapumpan Shark Fin Tag Game Instructions

---

TAG GAMES

Australian Government
Australian Sports Commission

thapumpan
'tha-pum-pan'

SCHOOL YEARS K–3   SCHOOL YEARS 4–6

Background

The tag game of *thapumpan* (shark) was observed being played by little children at Cape Bedford in north Queensland.

Language

The name of the game was taken from the Wik-Mungkan language of north Queensland.

Short description

A chasing-and-tagging game

Players

- A group of four to eight or more players

Playing area

- A designated area of around 10–15 metres square, depending on the number of players

Game play and basic rules

- A player bends one arm over the top of his or her head like a *thapumpan* (shark) fin — (or may touch with a palm on the back between the shoulders or a hand on the head). The player then bends over and chases the other players in a manner to represent a *thapumpan*'s movements in the water.

- When a player is touched he or she becomes the new *thapumpan* and the game continues.

Variations

- Have a couple of hoops, which are 'islands' for players to rest on for up to 5 seconds — (the game can also be played with a hoop for each player). Players walk or jog around the playing area and every so often a whistle is blown and players are safe if they reach their island before being caught (touched) by the *thapumpan*. Keep playing the game but change the *thapumpan* after a set time.

ausport.gov.au/isp
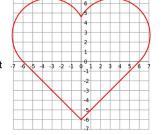
Scientific Sketching Task (Pre -Beach Profile and Hazards Encyclopedia Inquiry Task):

Using the same marine creature cut-out used for the Mathematics Marine Encounters task; Create a Scientific Sketch of your marine species. Watch the videos and PowerPoint to assist you

Resources

✔ Students use same marine creature cut-out used for the Mathematics Marine Encounters task
✔ PowerPoint - Scientific Sketching Practice
✔ How to draw Scientific Drawings
✔ Introduction to scientific sketching - California Academy of Sciences
  • scientific sketching practice
  • Introduction to scientific sketching
  • Introduction to scientific sketching lesson plan

>> Fold 2 pieces of paper into quarters.
>> Open up paper and trace along the folds.
>> Place object at center of one page.
>> Focus on one quadrant at a time, drawing it on the other page.

Scientific Sketching Practice

Let's create a scientific drawing…

Introduction to Scientific Sketching

This is a duplicate of English task
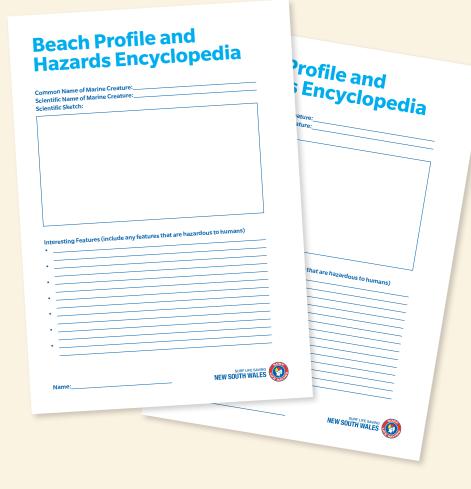
Beach Profile and Hazards Encyclopedia Inquiry Task:

Students are to research the following information about the Marine Creature you have been working on:

✔ Scientific Drawing (Science Task)
✔ Common name
✔ Scientific name
✔ location of where the species is found (colour on the map)
✔ environment it is found (fresh/salt water, vegetation, type of waterway)
✔ interesting features
✔ features that may make it hazardous to humans

Resources

Beach Profile and Hazards Encyclopedia

Beach Profile and Hazards Encyclopedia

Common Name of Marine Creature: _____
Scientific Name of Marine Creature: _____
Scientific Sketch:

Interesting Features (include any features that are hazardous to humans)

Name: _____

SURF LIFE SAVING
NEW SOUTH WALES

Compile an extra Daily Beach Report from a second beach

Compare the daily beach data

Daily Beach Report

Create a Beach Report for your local or chosen beach.
Make sure you use describing words.

- www.coastalwatch.com
- www.willyweather.com.au
- www.magicseaweed.com
- www.bom.gov.au
- www.coastalwatch.com

Today's conditions				
Air Temperature (°C)	___°C	☐ hot	☐ warm	☐ cool
Water Temperature (°C)	___°C	☐ hot	☐ warm	☐ cool
Wind Conditions (km/hr)	___km/hr	☐ gale	☐ windy	☐ still
Wind Direction				
Rainfall (Since 9am)	___mm			
Wave Height (m) (To tenth metre/ 0.00m)	___m			
Swell Height (m) (To one tenth of metre)	___m	☐ plunging		☐ spilling
Type of wave		☐ surging	☐ even waves	☐ choppy
How does it look?	☐ flat			
UV prediction				
Why would you go or not go to this beach today?				

Forecast for tomorrow				
Temperature	___°C			
Wind Speed	___km/hr			
Wind Direction				
Rainfall	___mm			
Wave Height	___m			
Swell Height	___m			
UV prediction				
Predict whether you would go to the beach				

SURF LIFE SAVING
NEW SOUTH WALES

Name: _____

Daily Beach Report

...port for your local or chosen beach.
...describing words.

...ch.com
...r.com.au
...ed.com

...ch.com

	☐ hot		☐ warm	☐ cool
	☐ hot		☐ warm	☐ cool
	☐ gale		☐ windy	☐ still

	☐ plunging		☐ spilling
	☐ even waves		☐ choppy

SURF LIFE SAVING
NEW SOUTH WALES

Name: _____

Teaching, Learning and assessment

Science, English, HSIE & Mathematics

Daily Task: Daily Beach Report 5x10-15 mins

This is a duplicate task with Mathematics, HSIE and Science. You may want to have each student or pairs collect beach conditions data on the "Daily Beach Report". Students may present a report each day. You may also want to record the beach conditions data on the "Beach Conditions Data Recording Sheet" to find patterns of beach conditions, create graphs, tables and infer patterns.

✔ Name of Beach
✔ Air Temperature
✔ Water Temperature
✔ Wind Conditions
✔ Wave Height
✔ UV prediction
✔ How does it look?
✔ Why would you go or not go to this beach today?
✔ Forecast for tomorrow

Homework

Read supplementary texts from other books and media relating to this lesson such as being safe at the beach and marine animals.

Resources

✔ www.bom.gov.au - Bureau of Meteorology
✔ www.coastalwatch.com - webcam of a beach - Search words: webcam (name) beach/river
✔ www.willyweather.com.au
✔ www.magicseaweed.com
✔ Daily Beach Task Instructions and Report Template
✔ Beach Conditions Data Recording Sheet

Extension: purchase a school weather station; Teacher to create a spreadsheet to record school weather report data each day

Teacher Resources

✔ Dr Rob Brander (UNSW) - Where do Waves Come From?
✔ Dr Rob Brander (UNSW) - How do Waves Break?
✔ Dr Rob Brander (UNSW) - The Beach Survival Guide
✔ Surfing Online - Types of Waves (for surfing)
✔ Surf Life Saving NSW - Waves
✔ SLS Beachsafe - Rip currents
✔ The Beach Rat - 4 Simple Ocean Observations to Improve Your Surfing

Dr Rob Brander
UNSW Science
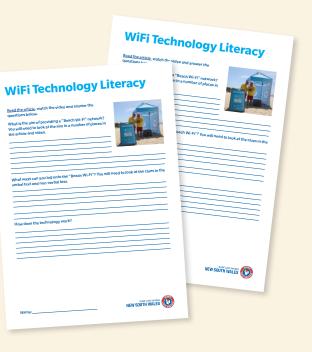
This is a duplicate Digital Technologies Task

Shared Text: Article "Surfing the net saves lives"

Literacy Task:

1. Read the article and watch the video.

2. Fill out the "Wi-Fi Technology Literacy Task" template

Teacher preparation: You will need to print out this article

✔ "Wi-Fi Technology Literacy Task" activity sheet

2020 Surf Life Saving NSW Beach WiFi Trial

Copy link

DR ISAM AL-HANDOLA

Watch on ▶ YouTube NSW Cultural Education

Task: Analysis of Beach Conditions Data Information Report

Explicit Teaching: how to create information report

Each student receives a hard copy of the daily beach conditions data collected. Students are to use different colours to categorise the data.

✔ Windy, small breeze, still
✔ hot, warm, cool temperature
✔ cold or warm
✔ large, small, still waves
✔ choppy, slight swell, still water, current, flooded
✔ plunging, spilling, surging waves
✔ good or poor beach day

Teacher Preparation:

✔ Grid paper - prior knowledge of construction of graphs
✔ Teacher to generate hard copy of "Daily Beach Conditions Data Recording Sheet"
✔ Teacher to give each student hard copies of the modelled tables and graphs
✔ Teacher to provide an Information Scaffold for each student

Task: Analysis of Beach Conditions Data Information Report

Explicit Teaching:

✔ relationships between data sets
✔ purpose of using graphs to show patterns e.g. willyweather.com.au graphs

Teacher models generating data table, pie graphs, column graph on the class board using Excel or similar app.

✔ Students to create an Informational Report using the beach conditions data, tables and graphs modelled by the teacher using Excel or similar app. e.g. At (Location) Beach between the dates of ...... there were .... good beach days. (Location) had mainly ..... conditions with ..... waves etc.

Daily Beach Report

Create a Beach Report for your local or chosen beach. Make sure you use describing words.

• www.coastalwatch.com
• www.willyweather.com.au
• www.magicseaweed.com
• www.bom.gov.au
• www.coastalwatch.com

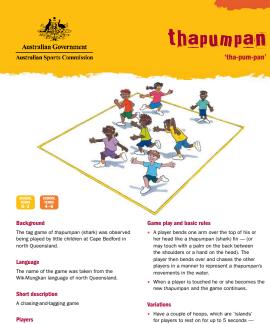| Today's conditions				
Air Temperature (°C)	_____°C	☐hot	☐warm	☐cool
Water Temperature (°C)	_____°C	☐hot	☐warm	☐cool
Wind Conditions (km/hr)	_____km/hr	☐gale	☐windy	☐still
Wind Direction				
Rainfall (Since 9am)	_____mm			
Wave Height (m) (To tenth metre/ 0.00m)	_____m			
Swell Height (m) (To one tenth of metre)	_____m			
Type of wave	☐surging	☐plunging	☐spilling	
How does it look?	☐flat	☐even waves	☐choppy	
UV prediction				
Why would you go or not go to this beach today?				
Forecast for tomorrow				
Temperature	_____°C			
Wind Speed	_____km/hr			
Wind Direction				
Rainfall	_____mm			
Wave Height	_____m			
Swell Height	_____m			
UV prediction				
Predict whether you would go to the beach				

Name:_____

SURF LIFE SAVING NEW SOUTH WALES

✔ Play the tag game of Thapumpan (shark) as observed being played by little children at Cape Bedford in north Queensland.

✔ Compile an extra Daily Beach Report from a second beach
✔ Compare the daily beach data

✔ Analysis of beach conditions data information
✔ Report from an extra beach

TAG GAMES

Australian Government
Australian Sports Commission

thapumpan
'tha-pum-pan'

SCHOOL YEARS K-3   SCHOOL YEARS 4-6

Background
The tag game of *thapumpan* (shark) was observed being played by little children at Cape Bedford in north Queensland.

Language
The name of the game was taken from the Wik-Mungkan language of north Queensland.

Short description
A chasing-and-tagging game

Players
• A group of four to eight or more players

Playing area
• A designated area of around 10–15 metres square, depending on the number of players

Game play and basic rules
• A player bends one arm over the top of his or her head like a *thapumpan* (shark) fin — (or may touch with a palm on the back between the shoulders or a hand on the head). The player then bends over and chases the other players in a manner to represent a *thapumpan's* movements in the water.
• When a player is touched he or she becomes the new *thapumpan* and the game continues.

Variations
• Have a couple of hoops, which are 'islands' for players to rest on for up to 5 seconds — (the game can also be played with a hoop for each player). Players walk or jog around the playing area and every so often a whistle is blown and players are safe if they reach their island before being caught (touched) by the *thapumpan*. Keep playing the game but change the *thapumpan* after a set time.

© Australian Sports Commission 2008

ausport.gov.au/isp

Daily Beach Report

You may want to have each student or pairs collect the data and present this each day. You may also want to record the beach conditions data on the spreadsheet "Daily Beach Conditions Recording Sheet".

TASK: Fill in the template "Beach Report" each day using the resource to create a Daily Beach Report. The information you will need to collect from the websites and webcam of the beach of your choice is:

• **Name of Beach**
• **Air Temperature**
  hot, warm, cool
• **Water Temperature**
  hot, warm, cool
• **Wind Conditions**
  Windy, small breeze, still
• **Wave and swell Height**
  large, small, choppy, slight swell, still water, plunging, spilling, surging waves
• **UV prediction**
• **Why would you go or not go to this beach today?**
• **Forecast for tomorrow**

TASK: Each day, students can record the beach report data on the spreadsheet "Daily Beach Conditions Recording Sheet" so they can construct tables, graphs and infer number patterns. This will form the foundation of Analysis of Beach Conditions Mathematics Task.
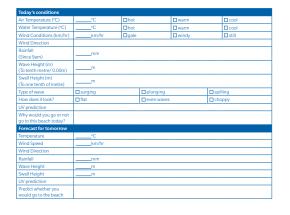
Name:_____

SURF LIFE SAVING
NEW SOUTH WALES

Daily Beach Report

Create a Beach Report for your local or chosen beach. Make sure you use describing words.

• **www.coastalwatch.com**
• **www.willyweather.com.au**
• **www.magicseaweed.com**
• **www.bom.gov.au**
• **www.coastalwatch.com**

Today's conditions				
Air Temperature (°C)	_____°C	☐hot	☐warm	☐cool
Water Temperature (°C)	_____°C	☐hot	☐warm	☐cool
Wind Conditions (km/hr)	_____km/hr	☐gale	☐windy	☐still
Wind Direction				
Rainfall (Since 9am)	_____mm			
Wave Height (m) (To tenth metre/ 0.00m)	_____m			
Swell Height (m) (To one tenth of metre)	_____m			
Type of wave	☐surging	☐plunging	☐spilling	
How does it look?	☐flat	☐even waves	☐choppy	
UV prediction				
Why would you go or not go to this beach today?				
Forecast for tomorrow				
Temperature	_____°C			
Wind Speed	_____km/hr			
Wind Direction				
Rainfall	_____mm			
Wave Height	_____m			
Swell Height	_____m			
UV prediction				
Predict whether you would go to the beach				

Name:_____

SURF LIFE SAVING
NEW SOUTH WALES

Resources

[Shark Smart website](#) (Dept of Primary Industries)

[Things You Wanna Know](#) | Nat Geo Kids S1 & bull; E1 Cool Facts About Sharks | Things You Wanna Know

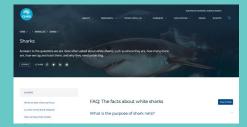[Shark Week Virtual Excursion](#) (can enable transcript)

[Shark Smart workbooks with teachers notes](#)

Shark Week - [Intro to Sharks - Myths and Facts](#)

[Dorsal Watch App](#) (shark spotting app)

[CSIRO Shark Facts webpage](#)

[Australian Museum Shark Myths and Facts](#)

Australian Museum - [Habitats fact sheets](#)

[Bureau of Meteorology](#)

[Webcam of a beach](#)
Search words: webcam (name) beach/river

Dr Rob Brander (UNSW) - [Where do Waves Come From?](#)

Dr Rob Brander (UNSW) - [How do Waves Break?](#)

Dr Rob Brander (UNSW) - [The Beach Survival Guide](#)

Surfing Online - [Types of Waves (for surfing)](#)

[What is an ocean wave](#)

[SLS Beachsafe](#)

The Beach Rat - [4 Simple Ocean Observations to Improve Your Surfing](#)

[Willy Weather](#)

[Magic Seaweed](#)

Royal Lifesaving [Rescue Safety Information sheet](#)

[How Chunk text](#)

[Royal Lifesaving Water Smart](#)

[An Amazing Discovery!](#) - Murray-Darling Basin Authority
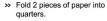
[Murray-Darling Basin Authority](#)

[Murray-Darling Basin Authority](#)

[Features of a River System](#) - Plan It - Twinkl

[Beachsafe.org.au](#)

PowerPoint - [Scientific Sketching Practice](#)

[How to draw Scientific Drawings](#)

[Introduction to scientific sketching](#) - California Academy of Sciences

[Introduction to scientific sketching](#)

[Introduction to scientific sketching lesson plan](#)

[FLAGS acronym](#)

[How to spot a rip](#) - Beachsafe.org

[How to survive a rip](#) - Beachsafe.org

[The Think Line](#) - Beachsafe.org

[Australian Pro Surfer Matt Wilkinsons Narrow Escape From Shark Caught On Camera](#)

10 myths about sharks
Evil or misunderstood? Ocean legend Valerie Taylor separates truth from tall tales.

By Valerie Taylor • February 6, 2018 • Reading Time: 6 Minutes • Print this page

[10 Myths About Sharks The Truth](#)

Shark myths and facts
[Shark Myths And Facts](#)

Craig Ison
Surfer

[Great White Shark Myths](#)

EXPLAINER

Why are we afraid of sharks? There's a scientific explanation.
Sharks aren't the mindless killers that we've made them out to be.

BY ELAINA ZACHOS

PUBLISHED JUNE 27, 2019 • 10 MIN READ

[Sharks Attack Fear Science Psychology](#)

Enjoy NSW beaches
Be SharkSmart

[sharksmart.nsw.gov.au](#)

THINK TANK

[Comprehension + Tech = Data From Number Of Sources](#)

- Surface recreationists
- Divers
- Swimmers & bathers
- Victims upon entering or exiting the water

1900–09
1910–19
1920–29
1930–39
1940–49
1950–59

[Shark Attack Graphs](#)

[Guided Tours Secondary](#)

Tracking white sharks
[Tagging sharks](#)

AUSTRALIAN SHARK ATTACK FILE

[Australian shark attack file](#)

[Tagging the great white shark](#)

[Yulunga: thapumpan](#)