

HSIE

Stage 5 (yr 9-10)

3-4 Weeks

"The beach has a place in everyone's story"

Story telling is part of all languages and cultures. Surf Life Saving is much more than just saving lives on the beach. A key priority for us is reaching out to all Australians through our substantial community education programs. We aim to teach all Australians how to keep themselves and their families safe at the beach.

The beach and inland waterways have many stories to tell. Through Surf Life Saving NSW Beach Safety Education Programs, we are bringing the beach to your class. Our program brings the story of both the coastline and inland waterways water safety journey. Each program has been designed to be delivered solely in Key Learning Areas or as a Cross- Curriculum learning experience. This unit focuses on delivering the key water safety message that the beach is a place for everyone to safely experience the beach, coastline and inland waterways. It also gives students an opportunity to further develop their literacy skills, address the Cross-Curriculum Priorities of the NSW Curriculum and strategies to experience authentic learning by creating meaningful projects through inquiry-based tasks.

Unit overview

The beach has a place in every person's story. Each student has their story about their experience about interacting with the aquatic environment. This unit explores how students use their story to arm themselves with strategies to have hard conversations with peers and family and make well informed decisions about their safety and wellbeing around water. The learning intention is to give students strategies to prevent unnecessary drownings and practice safe behaviours at the beach.

The Secondary School program provides an engaging, interactive learning experiences supported by a range of teacher and learner resources.

- "Beach is a part of everyone's story". The beach is a place of inclusivity, energy and place to enhance your health and wellbeing.
- The beach is always changing. Plan for a safe and fun beach experience for you, your mates and family. Know the beach you are going to.
- Know your safety plan in place ready to put into action.
- Fight the "mob" mentality.
- Be self-aware of my own and mate's competency to get you and themselves out of an unsafe situation on the beach.

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





Opportunities to engage with SLSNSW (Stage 5 - Australian Geography)

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 <u>community@</u> <u>surflifesaving.com.au</u>

Race to the Flags Virtual Program (Years 7-9)

In this stage based, curriculum aligned virtual session, students will have the opportunity to compete in groups with their classmates, as they problem solve real life Lifesaving scenarios. Learn more: <u>Race to the Flags</u> (7-9) - <u>Beach Safety Hub</u>

Lifesaver @ My School (7-12)

Bring a Lifesaver to your school and give your students the opportunity to learn about beach and ocean safety in their own classroom and backyard. Learn more: Lifesaver @ My School (7-12) - Beach Safety Hub 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 local run program by one of our SLSNSW Clubs or Branches. You can always contact your local club to find out more or local club to find out more or contact us and we can put you in touch with the right person. **Contact Us**

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🛦 Learn & Play 🚺 Resources & Programs

OURCE HUB

Let us help you find the right reason

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Contact the Community Education Team

Beach & Coastal Safety Resource Hub Surf Life Saving NSW

 Secondary School Education programs and resources Secondary School Students - Surf Safety Programs (<u>beachsafetyhub.org.au</u>)

02 9471 8000

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community@surflifesaving.com.au

Syllabus

NSW Syllabus outcomes by learning area

GE5 1 explains the diverse features and characteristics of a range of places and environments

GE5 2 explains processes and influences that form and transform places and environments

GE5 3 analyses the effect of interactions and connections between people, places and environments

GE5 4 accounts for perspectives of people and organisations on a range of geographical issues

GE5 5 assesses management strategies for places and environments for their sustainability

GE5 7 acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry

GE5 8 communicates geographical information to a range of audiences using a variety of strategies

Unit Content

Australian Geography -Environmental Change and Management

- Using data from multiple sources to create a detailed beach report and prepare for a safe experience at the beach
- Comparative Study between an issue in an NSW coastal environment and a coastal environment in another country for assessment
- Using Geographical Information Systems (GIS) to create a topographic map to apply student's contextual knowledge to their local coastal environment
- ✓ Using Virtual Reality to experience Beach and Rip Current Safety
- Assessing coastal management strategies and technology
- Case Study: Aboriginal and Torres Strait Islander Peoples River Management

Outcomes

Australian Geography -Environmental Change and Management

Environments

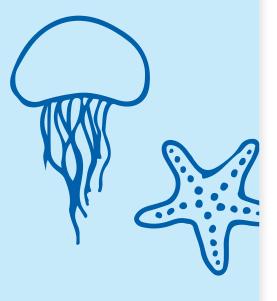
 investigate the role and importance of natural environments

Environmental change

 investigate human-induced environmental changes across a range of scales, for example: brief examination of types, and extent, of environmental change

Environmental management

✓ investigate environmental management, including various worldviews and the management approaches of Aboriginal and Torres Strait Islander Peoples





Australian Geography K-10

Syllabus

NSW Syllabus outcomes by learning area

Outcomes

Investigative study

Select ONE type of environment in Australia as the context for a comparative study with at least ONE other country.

- investigate the biophysical processes essential to the functioning of the selected environment
 - explanation of how the biophysical processes operating in the environment maintain its functioning
- ✓ investigate the causes, extent and consequences of the environmental change
 - examination of the causes and extent of change to the environment in each country
 - analysis of the short and longterm consequences of the environmental change in each country

- investigate the management of the environmental change, for example:
 - discussion of the factors influencing the management responses in each country
 - comparison and evaluation of the effectiveness of the management responses in achieving environmental sustainability
 - proposal of how individuals could contribute to achieving environmental sustainability for the environment in each country

Australian Geography K-10

Lessons

Individual task: Detailed

Beach Report. You may want to concentrate on local beaches or geographical area. Click <u>here</u> for downloadable and printable worksheet.

Use the <u>Beach safe website</u> or app to write a detailed description of the hazards at a selected beach (2 paragraphs) or under subheadings.

Hint: Look not at just the Hazards Section on the webpage.

Explicit Teaching

Beachsafe app - discussion of where to find the information about Hazards on a selected beach.

Willy weather -key parts that would give the data that is "fit for purpose" (look for the data at the bottom of the page for trends and historical data for each heading) <u>BOM Meteye</u> (In the pop up on landing page click on see text views for location>Current and Past weather label (right side)

Explicit questioning:

- Which apps/webpages are "fit for purpose" to find hazards at your selected beach?
- what are the important subheadings or key words in the text?
- what information is not valuable to finding hazards at your selected beach?

Classroom Tasks

Beach Report: Construct a Beach Report for your selected beach for today's conditions and 3-day forecast. It can either be completed for a written or video media. Students can use the scaffold provided.

Extension:

As a class upload reports to the class LMS page (e.g. Google Classroom) or collection for local beaches.

Types of beach landscapes and environments

Optional Introduction

COAST AUSTRALIA - Botany Bay to the Shoalhaven (History Channel -2017)

Explicit Teaching:

Beach Ecosystems

Small Group Activity: Using Topographic Mapping to manage Beach Rescue

Life Saving Victoria VR

✓ Complete Activity 3

Physical environment of coastal processes and hazards

Task: Complete the Activities - Rip Current Safety

Life Saving Victoria VR

Watch: <u>BEHIND THE NEWS</u> <u>Coastal Erosion</u> - 18/02/2020

Complete the Interactive Video tasks (You can also print this in PDF)

How does the processes change with wind?

Task: Create a brief overview of What and Where Coastal Erosion Occurs in Australia. <u>Coastal Erosion</u> <u>- Geoscience Australia</u>

Explicit Teaching:

Erosion weathering and mass movement

Lessons

Explicit Teaching: Management of Coastal Erosion Workbook

Work through the interactive experiments and student activities. There is a significant amount of teacher preparation involved with the experiments. However, there is activities which require little preparation.

Coastal Management High School Study Guide is produced by Refraction Media for the NSW Office of Environment and Heritage and School of Civil and Environmental Engineering, UNSW Sydney engineering controls, <u>Geo</u> <u>Factsheet</u> January 1997 Number 8 Coastal Management

Individual or Small Group Task:

Using the sources below; Create detailed notes including sketches, diagrams and other prompts about using engineering controls to manage coastal environments

Overview- Engineering Controls for managing the changing coastal environments

The difference between soft and hard engineering (<u>The Swim Guide</u>)

- ✓ Soft engineering
- ✓ <u>Hard engineering</u>

Aboriginal and Torres Strait Islander Peoples River Management

Complete "Life on The Murray" Activities Activity 1

Life Saving Victoria VR

Complete "<u>Life on The Murray</u>" Activities Activity 1 **Class Discussion:** "Technology has a place in engineering solutions in Coastal Management".

Start the discussion with the use of hard engineering solutions using <u>Geofabrics</u> as an example

- ✓ How does it work
- ✓ benefits/disadvantages
- How will it benefit the local community?

<u>Coastal Hazard Wheel app</u> (modelling with algorithms)

web based

Assessment criteria

- ✓ Speech/conference presentation
- ✓ report

🗸 video

GIS: Spatial Map View (make Topographic map)

Lessons

Competing Priorities

Managing Australia's Coastal Resources

Task: Complete the worksheet. Click <u>here</u> for downloadable and printable worksheet.

During the Program page 3-4 competing priorities

Nature Australia

Task:

How does each technological tool assist in the management of coastal environments?

Write for each device/app a paragraph detailing:

- ✓ How does the tool work?
- How does the tool help in managing coastal environments?

<u>Wave Rider</u>

Offshore Mapping

Beachwatch Beach Water Quality

Reef Cam in Port Phillip Bay, Victoria Geographical Information Systems – Spatial Viewer

Select Layers:

✔ GeoPDF

- Admin Boundaries Domestic Waterfront, Local Aboriginal Land Council, NPWS Reserves
- Elevation and Depth _Theme relative height, spot height
- Land Parcel and Property watermark
- ✓ water coastline, hydroline
- ✓ Imagery Theme Imagery

Class Discussion: "Technology has a place in engineering solutions in Coastal Management".

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✓ How does it work

- ✓ benefits/disadvantages
- How will it benefit the local community?

<u>Coastal Hazard Wheel app</u> (modelling with algorithms)

Web based

Subject Specific Resources

- ✓ <u>Beach & Coastal Safety Resource</u> <u>Hub</u>
- ✓ Surf Life Saving NSW
- ✓ Beachsafe
- ✓ Willy Weather
- ✓ Bureau of Meteorology Meteye
- <u>Beach Report Scaffold (Teachers</u> resources)
- <u>Coast Australia Botany Bay to</u> <u>the Shoalhaven</u> (History Channel - 2017)
- ✓ <u>www.slideshare.net</u>
- ✓ Life Saving Victoria VR how to guide
- ✓ <u>Rip Current Heroes Documentary</u>
- ✓ <u>Rip Current Heroes Study Guide</u>
- ✓ <u>Managing Australia's Coastal</u> <u>Resources</u>
- Behind The News Coastal Erosion
 18/02/2020 and Interactive
 Videos

- <u>Environmental Management and</u> <u>Change Comparative Study</u>
- ✓ <u>Coastal Erosion Geoscience</u> <u>Australia</u>
- <u>Erosion weathering and mass</u> <u>movement</u>
- ✓ <u>Coastal Management Teacher</u> <u>Resource Guide</u>
- ✓ <u>Geo Factsheet January 1997</u> Number 8 Coastal Management
- ✓ <u>About the murray</u>
- ✓ <u>Teacher's notes Managing</u> <u>Coastal Resources</u>
- ✓ Technology
- ✓ <u>www.jaconline.com.au</u>
- ✓ Coastal change and management
- ✓ <u>Coasts management</u>
- <u>Coastal Management High</u>
 <u>School Study Guide</u> is produced by Refraction Media for the NSW Office of Environment and Heritage and School of Civil and Environmental Engineering, UNSW Sydney

- ✓ <u>Coastal Management Teacher</u> <u>Resource Guide</u>
- ✓ <u>Coastal Management</u>
- Overview of soft coastal protection solutions - Atlantic Network for Coastal Risks Management (High Level Readers could use this as resource for Assessment)
- Cooper, J. A. G., and J. Mckenna. Working with Natural Processes: The Challenge for Coastal Protection Strategies The Geographical Journal, vol. 174, no. 4, 2008, pp. 315-331. JSTOR. Accessed 21 Dec. 2020.
- Eliot, M., 2016: Coastal sediments, beaches and other soft shores. CoastAdapt Information Manual 8, National Climate Change Adaptation Research Facility, Gold Coast Coastal Sediments

✓ <u>Spatial Map Viewer</u>

Assessment Resources - UK:

- ✓ SBS One <u>Coast: Arran to Gretna</u>
- ✓ Coastal Management Challenges
- Managing the Dorset Coast: Conflicts, Challenges and Opportunities <u>https://clickv.ie/w/</u> <u>hCcp</u>
- ✓ <u>Managing the Dorset Coast:</u> <u>Teachers Notes</u>
- Field Studies Council: <u>Bringing</u> <u>Environmental Understanding to</u> <u>All - Coasts (Norfolk, UK)</u>
- Extreme Weather: <u>Coastal</u> <u>Flooding and Teachers Notes</u>
- Geography Pods (brief overview activities) (UK examples)

Other Resources

- ✓ <u>The English Literary Techniques</u> <u>Toolkit for The HSC</u>
- ✓ <u>Blog extract and comprehension</u> <u>questions</u>
- ✓ TED Talk <u>The Joy of Cold Surfing</u>
- ✓ Gary Guerryn <u>"Seeds of</u> <u>Greatness"</u>
- ✓ Worksheet: <u>refugee-community-</u> program.docx "The community program helping young migrants and refugees learn to navigate Newcastle's iconic beaches"
- What the Surf?! 40 Years of Women in Life Saving (Play from 14 min 50 Seconds) - Episode 4
- ✓ Lifesaving Victoria VR Google Expedition - how to use
- ✓ <u>3 ways to Build resilience</u> TEDx talks
- Coast Australia <u>Botany Bay to</u> the Shoalhaven (History Channel - 2017)

- ✓ <u>GIS: Spatial Map View</u> (make Topographic map)
- ✓ <u>ABC Behind The News Coastal</u> <u>Erosion</u> - 18/02/2020 and Interactive Videos
- ✓ <u>Coastal Erosion Geoscience</u> <u>Australia</u>
- SBS One Coast: Arran to Gretna
- Managing the Dorset Coast: <u>Conflicts, Challenges and</u> <u>Opportunities</u> - and Teachers Notes
- Field Studies Council: <u>Bringing</u> <u>Environmental Understanding to</u> <u>All - Coasts</u> (Norfolk, UK)
- Extreme Weather: <u>Coastal</u> <u>Flooding and Teachers Notes</u>
- <u>Geography Pods</u> (brief overview activities) (UK examples)
- ✓ Which coastal erosion solution is the right one for your beach

- Overview of soft coastal protection solutions - <u>Atlantic</u> <u>Network for Coastal Risks</u> <u>Management</u>
- Cooper, J. A. G., and J. Mckenna. " Working with Natural Processes: The Challenge for Coastal Protection Strategies; The Geographical Journal, vol. 174, no. 4, 2008, pp. 315-331. JSTOR, www.jstor.org/stable/40205252. Accessed 21 Dec. 2020.
- Eliot, M., 2016: Coastal sediments, beaches and other soft shores. CoastAdapt Information Manual 8, National Climate Change Adaptation Research Facility, Gold Coast

Scootle resources

 <u>Student Wellbeing Hub:</u> secondary student resources TFL-ID M021182