

LIFESAVING VOLUNTEERS TO THE RESCUE

Level: 7 & 8

Activity: 3

Overview

The Westpac Lifesaver Rescue Helicopter and its crew perform rescue operations all along Victoria's coastline. A successful rescue often also involves people from different emergency services, such as paramedics and police as well as lifesavers at patrolled beaches. Victoria's coastline ranges from sandy beaches and wetlands to forests, rocky shores and cliffs. The different types of terrain can be challenging when conducting a rescue operation. During this lesson, students will begin to learn about topographic maps and use their understanding of contour lines and other features of maps to identify the best path to the ocean for a land based rescue operation.

Resources

- Smartboard
- Clay or play dough
- Fishing line
- A copy of the *Topographic Map of Wilson's Promontory* (Appendix A) for each pair.

Activity

ENGAGE

Ask students to reflect on the Volunteers to the Rescue expedition:

- Who was involved in the rescue operation?
- Where did it take place?
- Describe the location of the rescue.
- This rescue took place at a patrolled beach. Not all of Victoria's coastline is sandy beaches, what other types of terrain are there?
- What if someone got themselves into trouble near wetlands or rocky cliffs? What different challenges might that pose to the rescue team?

Introduce students to topographic maps using the [Reading a Map](#) online activity.

EXPLORE

Give each student a small amount of clay or play dough and ask them to mould a 'hill'. Encourage them to use slightly irregular shapes. Students should then swap with a partner and attempt to draw the contour lines for the shape they have been given. They can check their work by using fishing line to slice their hill horizontally into segments of equal thickness. They should then trace each of the pieces in turn on a single piece of paper to create contour lines, starting with the largest.

EXPLAIN

Invite some students up to draw contour lines on the board for:

- A tall, narrow hill
- A short, wide hill
- A hill that is steep on one side and has a gentle slope on the other
- A hill with two peaks

As this is happening, ask students to explain how the width of the contour lines relates to elevation.

ELABORATE

Give pairs a copy of the Topographic Map of Wilson's Promontory (Appendix A). They need to find the best route for a rescue team to reach location A, B and C (note: the public road ends at Tidal River). Encourage them to consider other landmarks and features, for example rivers and walking tracks, not just the contour lines.

EVALUATE

Display the Topographic Map of Wilson's Promontory (Appendix A) on the smartboard. Ask pairs to show the class the route they would take for one of the locations, explaining why they think this would be the fastest route. Finally, discuss:

- In what types of terrain might a land-based rescue be challenging?
- What geographical features might hinder a land-based rescue?
- Thinking about the geography of Victoria's coastline, what sorts of areas would be safest for undertaking water-based activities (eg. Kayaking, swimming, fishing etc)?
- What safety advice would you give to someone thinking of undertaking water-based activities?

Curriculum Links



Level 7		
GEOGRAPHY	<u>Geographical Concepts and Skills:</u> Data and information	Analyse maps and other geographical data and information using digital and spatial technologies as appropriate, to develop identifications, descriptions, explanations and conclusions that use geographical terminology (VCGGC104)
	<u>Geographical Knowledge:</u> Landforms and Landscapes	Different types of landscapes and their distinctive landform features (VCGGK116)
Level 8		
GEOGRAPHY	<u>Geographical Concepts and Skills:</u> Data and information	Analyse and evaluate data, maps and other geographical information using digital and spatial technologies and Geographical Information Systems as appropriate, to develop identifications, descriptions, explanations and conclusions that use geographical terminology (VCGGC132)

Sample Report Comments

{Name} understands how contour lines can be used to show elevation above sea level. {He/She} can draw a reasonable topographical representation when given a 3D model of a hill.

{Name} used {his/her} knowledge of contour lines and other common map features to plan the best route from one location to another.

{Name} is beginning to identify and describe some safe locations along Victoria's coastline to undertake water-based activities.

References

National Park Service, WebRangers. *Reading a Map*, <https://www.nps.gov/webrangers/activities/readingmap/> [viewed 15 March 2018].

Victorian Department of Education and Training, 2017. *Understanding Contour Lines: Level 7*, <http://www.education.vic.gov.au/school/teachers/teachingresources/discipline/maths/continuum/Pages/contourline50.aspx#a1> [viewed 15 March 2018].

Geoscience Australia and Natural Earth, 2009-2018. *Australian Topography* <http://www.ga.gov.au/interactive-maps/#/theme/national-location-information/map/australiatopography> [viewed 15 March 2018].

Appendix A

Topographic Map of Wilson's Promontory, Victoria, Australia



Made with Natural Earth
Free vector and raster map data @ naturalearthdata.com

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