



... know what it's like out there!

cross curriculum activities on a weather and safety theme from:

KEEPING YOUR SEA SAFE FOR LIFE



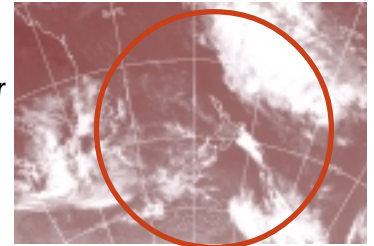
Maritime Safety


MARITIME SAFETY AUTHORITY OF NEW ZEALAND
Kia Arawa Kia Ora

Curriculum: Science/Health/English	Levels 3-5
Strands: Planet Earth Healthy Communities & Environments Visual Language, Oral Language	
Learning Intentions:	
<ul style="list-style-type: none"> • Knowing why understanding and using weather forecasts plays such an important part in our everyday lives. • Understanding and interpreting weather forecast language. • Being able to identify marine forecast sea areas of NZ and the area appropriate to the local district. • Identifying and communicating marine weather guidelines which will contribute to the safety of 'boaties'. 	
Skills Used and Developed:	
• Research • Information/Technology • Communication	
Related Curriculum Areas: Arts • Mathematics	

eg

- if 'a bit wet' turned out to be continuous heavy rain, flooding could occur placing people, houses and stock in danger.



- Develop the idea that forecasters need to describe weather as accurately as possible and to do this they use a special vocabulary. Use Today's Weather at the Met Service website at www.metservice.co.nz. Click on the  box on the banner > then Weather Terminology. Print out the information and distribute to students.

Tuning into Weather

- In groups, challenge students to write a list of the ways that weather plays a major part in our everyday lives, **eg** how does it affect ...
 - the clothes we wear
 - the sports we play
 - the activities we are able to take part in
 - our moods and those of people around us?
- Have students keep a media watch to find out how local weather events have affected people, **eg**
 - people stranded on Mt. Hutt Ski Field
 - flooding in Bay of Plenty
 - tornado in Taranaki
- Why do the students think that weather forecasts are such a regular part of radio and television broadcasts?
- Have students list reasons why they think people find it important to listen to weather forecasts, **eg**
 - to decide whether or not to go skiing
 - planning a family outing or picnic

Message Two
knowing where
to go to
get a marine
weather forecast

- Spend time discussing the terms used and how weather is described. Have students describe the weather of their district over the last few days and currently using the language forecasters use.

Weather Affects Occupations

- Tell students that knowing what the weather is 'going to do' is really very important for people in many occupations. Can they say why having an accurate weather forecast is important for people involved in agriculture,? **eg**
 - shifting stock to higher ground if flooding is predicted
 - using helicopters to protect grape buds from frost damage
 - picking fruit early to avoid frost or rain damage
 - applying fertilizer before rain is predicted
 - delaying shearing of sheep because of rain
- Can they say why having an accurate weather forecast is very important for people involved in transport, **eg**
 - avoiding bumpy air travel flights (turbulence)
 - Cook Straight ferry sailings
 - roads closed with snow, ice or slips

Weather Vocabulary

- Challenge each student to write a brief description of the weather conditions they are experiencing currently in the local area. Before beginning, discuss suitable headings or criteria which could be used such as ...
 - temperature - cloud cover
 - wind speed and direction - rainfall
- If a forecast simply said 'It's a bit wet tomorrow', what could this forecast mean? Have students list possibilities.
- Why do they think that this type of forecast is unhelpful?
- Can they identify any situation where a worst case ... scenario of wet could place people or animals in danger?

Weather Affects People and Recreation

- Have students brainstorm identify recreations and sports where weather can have a major affect
 - tramping - skiing - sailing
 - fishing - boating - cricket
 - school sports - kite flying - class sleep-out
- In each identified sport and recreation, can they say how weather conditions will make a difference? What would be the best weather conditions for each sport and activity?



... students making a difference

Introducing the Marine Safety Authority (MSA) to students

The MSA is a government organisation (Crown entity). They say that the job they do is best described as *saving lives* and *preventing pollution* in our maritime (seas and lakes) environment. The MSA strongly believes that the best way of keeping people safe is to educate them about the dangers they could face and the *safety precautions* they can take to help keep safe.

A New 'Stay on Top' Campaign

- Remind students about the 2003/4 Maritime Safety Authority 'stay on top with a life jacket' campaign to educate boaties about the new life jacket laws. (*starters & strategies Sept. 2003, Pgs 24-25*) How many students have seen the Colin Meads' television adverts?
- Tell students that for the summer of 2004/5, the Maritime Safety Authority are launching a new 'stay on top with the marine weather forecast' campaign.

Identifying the Problem

- Share the following research facts with the students:

- weather and sea conditions play a large part in over 40% of all fatal 'boatie' accidents
- in 13 of the 19 accidents where weather and sea conditions played a large part, a weather forecast was not obtained or not acted on.
- too many boaties do not know how to access or understand a marine weather forecast.

- Tell students that the messages the MSA wants students to help get out to boaties is:

Before you go out in a boat –ALWAYS check and understand the marine weather forecast for your area. If in doubt DON'T go out.

Know Your Sea Area

- Download and distribute the New Zealand Sea Area map pdf at: www.teachingonline.org/msa.html
- Tell students that maritime weather forecasts are divided into areas. Using atlas skills, identify the main towns and cities in each area and the sea area related to their school.
- Have groups choose and download different sea area forecasts at: www.metservice.co.nz > click on forecasts scroll down to locate the sea area or marine recreational area > click, download and print out.

Understanding Marine Weather Forecasts

- List the information from the printouts that the marine forecast provides. What parts of the description don't the students understand? Tell students that a problem that many boaties can have understanding the forecast is the way sea conditions and wind speed are described, eg
 - what is a moderate sea? - how fast is a 45 knot wind?
 - what is the difference between a gale and a storm? ...

Message Two
knowing how
to understand
a marine
weather forecast

- Tell students that a knot must be multiplied by 1.8 to convert to approx. kph but most people however simply double the knot speed.
- Go to www.teachingonline.org/maglinks.html and download the Marine Weather Info. pdf containing a glossary of terms used in marine forecasts.
- Using the information on the sheet, help groups discuss and understand their current sea area forecast language, eg
 - what is the wind speed range for a gale and storm warning
 - what will be the average height of waves described as slight, moderate, high ...
- Ensure students understand that average wind speed can mean gusts of 50% higher and that some waves will be much greater than the average.
- Record the marine forecast on National Radio at 5.05 am. Play to class and discuss.
- Older students can find how to find wind speed and direction by reading weather map at the [Met Service Learning Centre](#) and learn the high correlation between isobars and wind.

Accessing the Marine Forecast

- National Radio (at 5am after news)
- 0900 999 plus coastal area code (ring 0800 weather for correct coastal code)
- www.stayontop.org.nz • local newspapers
- www.metservice.co.nz > forecasts • VHF Radio Channel 16

Getting the Message Out – making a difference

- Remind students of the two messages the MSA would like to get out to boaties in the community and that they can help make a difference. Choose ideas from the following:
 - personally escort your boatie dad or friend around the websites: **Met Service Website Marine Forecasts** and the **Stay On Top**
 - prepare brochures of the two messages and a glossary of marine forecast terms for a community post box drop
 - as a class, prepare and run a 'stay on top' day at school where meteorologists and experienced boaties are invited to speak to parents about interpreting weather information
 - design posters for a shopping centre display
 - fridge reminders and laminated cards for the family boat.

