



## ACTIVITY 1

### UNDERSTANDING WHAT YOU READ

Read the content for this topic then answer the following questions to see how much you understand about what you read.

1. When water absorbs heat from the atmosphere it \_\_\_\_\_ ?
2. Additional water flows into the ocean when what melts?
3. Paleo indicators are:-
  - a. tools used to find dinosaur bones
  - b. features that show water levels in the geological past
  - c. a diet based on food ancient ancestors used to eat
4. A rise in sea levels is linked to what?
5. Which word in the text means:- to flood; cover or overspread with water.
6. List three effects that the rise in sea levels has on coastal regions.
7. Millions of tonnes of what enters the oceans each year?
8. What impact does water pollution have?
9. Approximately what percentage of Australians do NOT live in coastal zones?
10. What is the most common kind of rubbish found in the ocean?



## ACTIVITY 2

### SEA LEVEL RISE

What effect does melting ice have on sea levels? The following experiment shows the different effect melting sea ice and sheet ice (land) has on sea level changes. Which type of melting causes a greater increase in sea level?

#### Materials

2 identical clear containers eg takeaway food containers  
 Modelling clay  
 Ruler  
 Tray of ice cubes  
 water

#### Instructions

- Place half the clay in the end of each container forming the clay to represent land rising out of the ocean.
- In one container place ice cubes on the clay. Label 'ice on land'.
- Place the same number of ice cubes next to the clay in the other container. Label 'floating ice'.
- Pour the same amount of water into both containers. The water in the 'floating ice' container must be enough so the ice cubes float.
- Using the ruler record the initial height of water in each container.
- Take measurements at 15 minute intervals and make observations of what happens.

**In which situation did the water level rise more?**

**Why do you think this happened?**

Use a ruler to measure the water height





## ACTIVITY 3

### PLASTIC OCEANS

Watch the following video then write a brief news report on what's happening.



<https://www.youtube.com/watch?v=CY2OuKLvzEE>

Watch the following video then draw a diagram that shows how a plastic bag can end up in the ocean similar to the example shown below.

<https://www.youtube.com/watch?v=glgh9h2epyw>



## ACTIVITY 4

### WORDS AT WORK

In Wordy News this week we defined the word SURGE which was used in the following way:



In this instance the word surge is a noun.  
In the letter to the editor below circle all the common nouns.

I WAS amused by Stephen Pratt's letter (CCA 24/09) about the need to do nothing at the Jetty due to the threat of sea level rise.

Does he really think the garden that was planted at the foreshores will protect the city when the predicted sea level rises and tidal surges come? Surely this is the best evidence yet for development at the foreshores which protects this valuable community space.

The bush will merely be washed out to sea as the ocean pounds its way to the railway line and jetty shops. If you believe in rising sea levels as a consequence of climate change as I do, surely the best way to move forward is to build retaining walls at the foreshores with walkways on top to protect the area for future generations.



## ACTIVITY 5 CHECK IT OUT Sea week

Complete the chart below to explain the impact that sea level rise has on the environment and note what actions could be taken to help solve the issue.

	Issue / impact	Action
	Coastal Zone:	
	Water resources:	
	Agricultural production:	
	Human health:	
	Infrastructure:	
	Flora and fauna	



## ACTIVITY 6 NEWS IN THE SPOTLIGHT

### A SINKING FEELING

The news account on this week's page told the story of a low lying coastal community becoming engulfed by the sea.

Write a news report about the inhabitants of a town / city in Australia having to be relocated because of the rise in sea level.

Use the map below showing areas in Australia at risk to choose a place.

