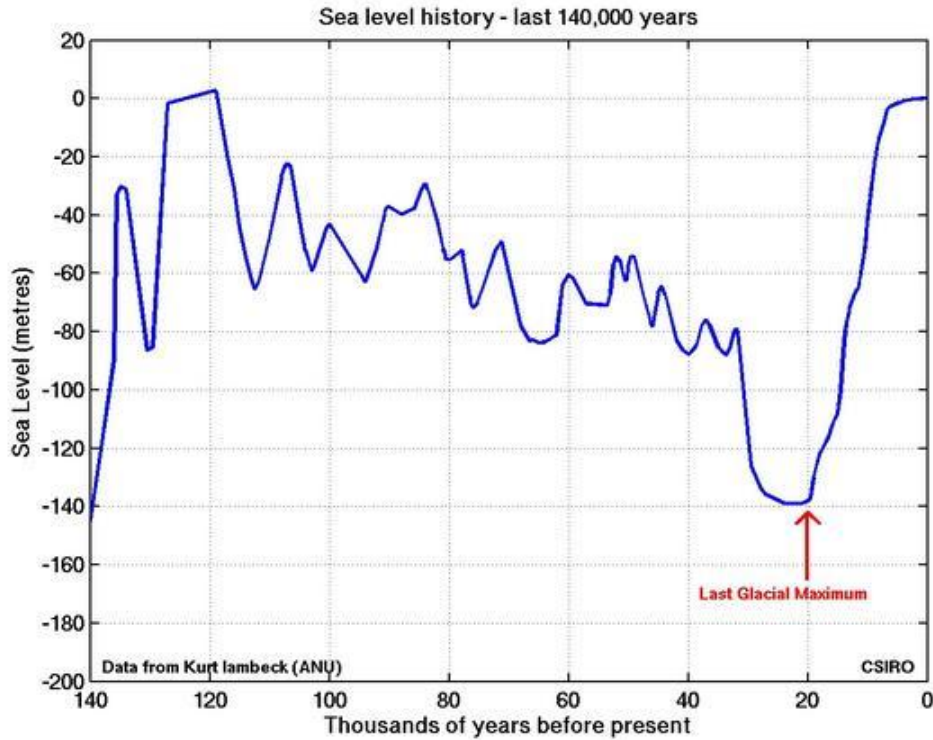


Rising Sea Levels - Student Worksheet

Sea levels have been rising and falling throughout geological history. The graph below demonstrates the dramatic fall in sea levels during the period of the last glaciation.



Source: *Sea Level Rise* CSIRO National Flagship at: http://www.cmar.csiro.au/sealevel/sl_hist_intro.html#140

Using the information from the graph:

1. How long ago was the last glacial maximum? _____
2. What is the rise in sea level between glacial maximum and now? _____
3. Why would a global glaciations cause a fall in sea level? _____

4. Aboriginal people came from the islands north of Australia. They walked and island-hopped in canoes about 70, 000 years ago. Explain.

5. Would this drop in sea level be found elsewhere in the world? Explain your answer.

Rising Sea Levels - Student Worksheet

Interesting Fact

During early Permian times 280-320mya, most of Western Australia (and the rest of Gondwanaland) was covered by ice caps several thousand meters thick.

Measuring changes in sea levels over thousands of years is not easy. Scientists may use:

1. Data from recent sea level measurements at important sea ports
2. Geological data – here waves crash against the shore and the rocks are eroded to form a flat platform. Look at the picture below and see if you can draw a horizontal line to mark each of three rock cut platforms.

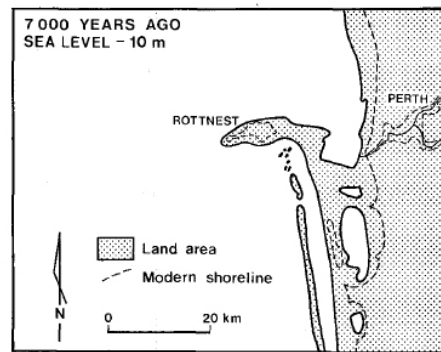
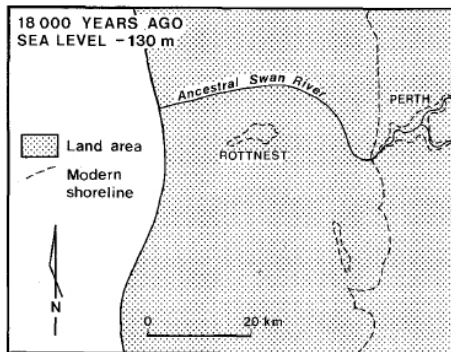


After Gozzard (2007) Geology and Landforms of the Perth Region: Geological Survey of Western Australia

Can you suggest any other methods that we could use to estimate sea level changes over the last 80,000 years?

Rising Sea Levels - Student Worksheet

From this information, we can map the movement of the Perth coastline



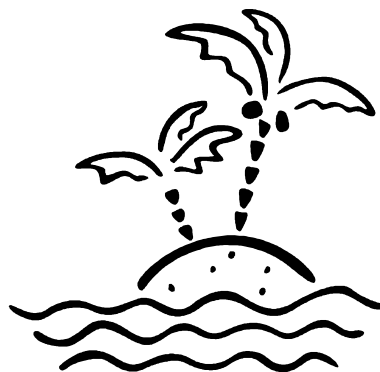
After Gozzard (2007) *Geology and Landforms of the Perth Region: Geological Survey of Western Australia*

6. How do these coastlines vary from the present coastline?

Interesting Fact

Noongar people have dreamtime stories of walking to Rottneest Island

7. Visit <http://www.smh.com.au/multimedia/Australia/index.html> and see the affect of sea level rise on Australia. How will a rise in sea level affect you and your family?



Rising Sea Levels - Student Worksheet

8. Visit <http://www.abc.net.au/worldtoday/content/2006/s1705128.htm> and listen to the plight of the people of Tuvalu. Tuvalu is a Pacific nation living on seven low lying coral atolls. The highest point on land is just three metres above sea level.

9. What are the problems the people of Tuvalu face?

10. What do you think should be done to solve this problem?

Visit The Australian Academy of Science website at:

<http://www.science.org.au/nova/082/082key.htm> and find out more about the rate of rise.

In this article, scientists predict a rise of about 50cm by 2010. With a rule, measure 50 cm from your foot up your leg – pretty amazing?