

Sea Level Change and Ancient Coastlines

1. This graph shows how sea level has changes through time.

What is the vertical y-axis? _____

What is the horizontal x-axis? _____

(Shackleton, 1988)

2. Approximately how high was the sea level...

(compared to today's sea level)

18,000 years ago? _____

40,000 years ago? _____

90,000 years ago? _____

140,000 years ago? _____

When sea level falls, the coastline moves in an oceanward direction.

When sea level rises, the coastline moves in a landward direction.

A bathymetric map shows the depth of an ocean or lake.

Contour lines connect points of equal depth below present sea level.

3. On the bathymetric map below,

Indicate where the coastline would have been at each of these times.

Draw each coastline as a line on the map in a different color.

Fill in the key to indicate which color matches which time.

Key:	
<input type="checkbox"/>	18000 years ago
<input type="checkbox"/>	40,000 years ago
<input type="checkbox"/>	90,000 years ago
<input type="checkbox"/>	140,000 years ago

4. *The two stars show the locations of ancient archeological sites discovered by scuba diving archeologists. They found that these communities lived at an ancient coastline and survived on a diet of fish. Given your knowledge of the changing sea level from the graph above, old could these archeological sites be?*

(Hint: < 20,000 years)