

## INSTRUCTION PAGE: BATHYMETRY Activity

### What does the Ocean Bottom look like at the EDGE OF A CONTINENT?

#### LEARNING PROCEDURE

1. Each student will be given bathymetric charts from the South Atlantic, specifically off the coast of South Carolina (SC) and Georgia (GA).
2. NOTE: Contours (= isobaths) indicate equal depths in meters.
3. The graph paper is divided by centimeters, where **1 cm is approximately 5 boxes** on the graph paper. Each box on the graph will equal 10 m on the vertical scale where **1 cm = 50 meters**. The short edge of the graph paper will be the y-axis, or the vertical axis. The x-axis, or horizontal scale, will equal the scale of the map, which is **1 cm = 10 km**.
4. The profile will extend from the western-most edge of the profile line (i.e., on land, left edge of the map at Point A on the South Carolina Continental Margin Bathymetric Contour Map and Point B on the Georgia Continental Margin Bathymetric Contour Map), to the point offshore where a depth of 500 m is reached (A' on the South Carolina map and B' on the Georgia map).
5. Begin plotting your points, using the Continental Margin Profile Data Tables. Make sure you are using the table that corresponds to their Continental Margin Bathymetric Contour Map (either South Carolina or Georgia). They should only plot the depths indicated on the Data Table. In order to determine the distance of each point, they should use their straight edge and the scale 1 cm = 10 km. Complete each table.
6. Next, students can connect the plotted points with the marker pen (freehand or with a straight edge). You have now constructed the cross-sectional bathymetric profile.
7. Make sure each profile states the following:
  - Student Name
  - Profile from 0 to 500 meters depth.
  - Profile State (SC Continental Margin or GA Continental Margin)

## Continental Margin Profile Data Tables Student Worksheet

**South Carolina Continental Margin Profile Data Table**

Distance on Map (cm)	Actual Distance (km)*	Depth (m)
		0
		20
		40
		60
		80
		100
		140
		180
		220
		260
		300
		340
		380
		420 (furthest line from shore)
		460
		500

**Georgia Continental Margin Profile Data Table**

Distance on Map (cm)	Actual Distance (km)*	Depth (m)
		0
		20
		40
		60
		80
		100
		140
		180
		220
		260
		300
		340
		380
		420
		460
		500

\*Use map scale of 1 cm = 10 km