

Coastal Plain

Description of Model 8: Coastal Plain

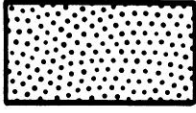
The irregular form of this coastline is caused by its having first been raised so that river valleys were formed, then it slowly sank drowning the valleys, forming estuaries. A prominent feature shown on the model is the offshore bar (145) which was formed in the following manner: The sea bottom slopes very gently away from the land so that incoming waves break in the shallow water some distance offshore. Along the line of the breaking waves sand is stirred up and thrown landward. The sand deposit grows higher and higher by deposition of more sand thru the action of the waves, as well as by sand that is deposited by long shore currents. Sand dunes may form on top of the bar.

After the offshore bar has emerged above the surface of the water, a lagoon is present between the bar and the shoreline. A lagoon, (146) is a sheltered, calm, stretch of water that is frequently used for coastal navigation. The rivers that drain the coastal plain and flow into the lagoons bring great quantities of sediments. These sediments are gradually deposited in the lagoon and eventually tend to fill it up.

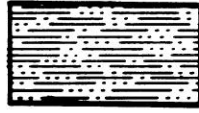
In the shallow waters of the lagoon, salt marshes are formed. These salt marshes (148) are laced with an intricate pattern of tidal channels in which the water level fluctuates with the rising and falling of the tide.

At certain intervals in the offshore bar, inlets (147) occur through which the tide flows. On the landward side of the tidal inlet, a tidal delta may be deposited. Gradually the lagoon tends to fill up with sediments, and fresh water plants then begin to invade what was formerly a salt marsh. In this stage of shoreline development, the offshore bar itself is attacked by the waves and driven landward across the lagoon or marsh, leaving a relatively straight coastline.

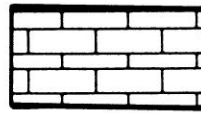
LEGEND



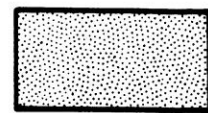
SANDSTONE



SHALE



LIMESTONE



SEDIMENTS

Coastal Plain: Find each feature on the model and write the number of the feature in the table below. Answer the questions below.

Feature Number (and/or Coordinates)	Feature Name
	Coastal Plain
	Bedrock Island
	Offshore Bar
	Lagoon
	Inlet
	Salt Marsh
	Old Shore Cliff
	Estuary
	Submarine Canyon
	Continental Shelf
	Continental Slope

1. How does this general coastal plain form?
2. How does the offshore bar form?
3. What is a lagoon?
4. What is a salt marsh? What effect do the tides have on the area?
5. What eventually will probably happen to the lagoon?
6. What is the difference between the continental shelf and continental slope?
7. Where in the United States would you expect to find the above landforms?