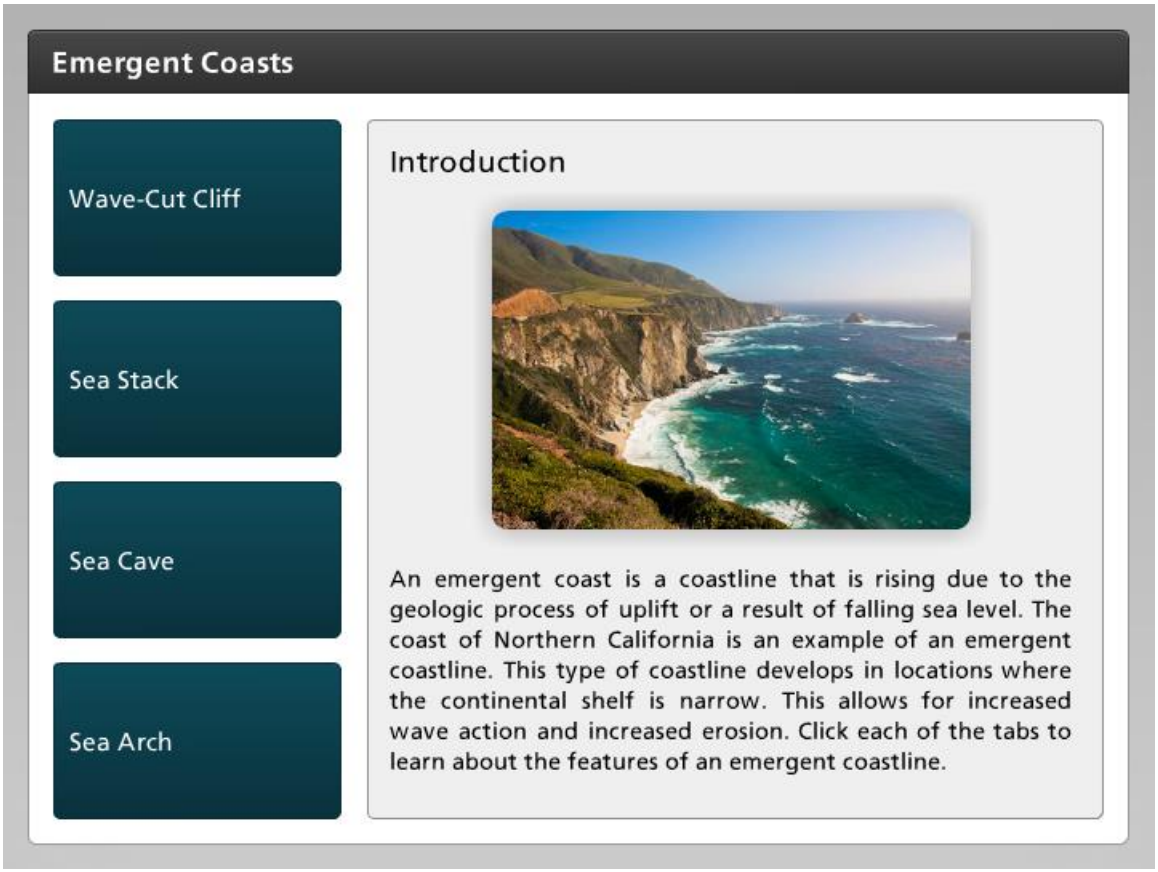
Module 12: Oceanography
Topic 4 Content: Emergent Coasts Notes

Introduction



An emergent coast is a coastline that is rising due to the geologic process of uplift or a result of falling sea level. The coast of Northern California is an example of an emergent coastline. This type of coastline develops in locations where the continental shelf is narrow. This allows for increased wave action and increased erosion. Click each of the tabs to learn about the features of an emergent coastline.

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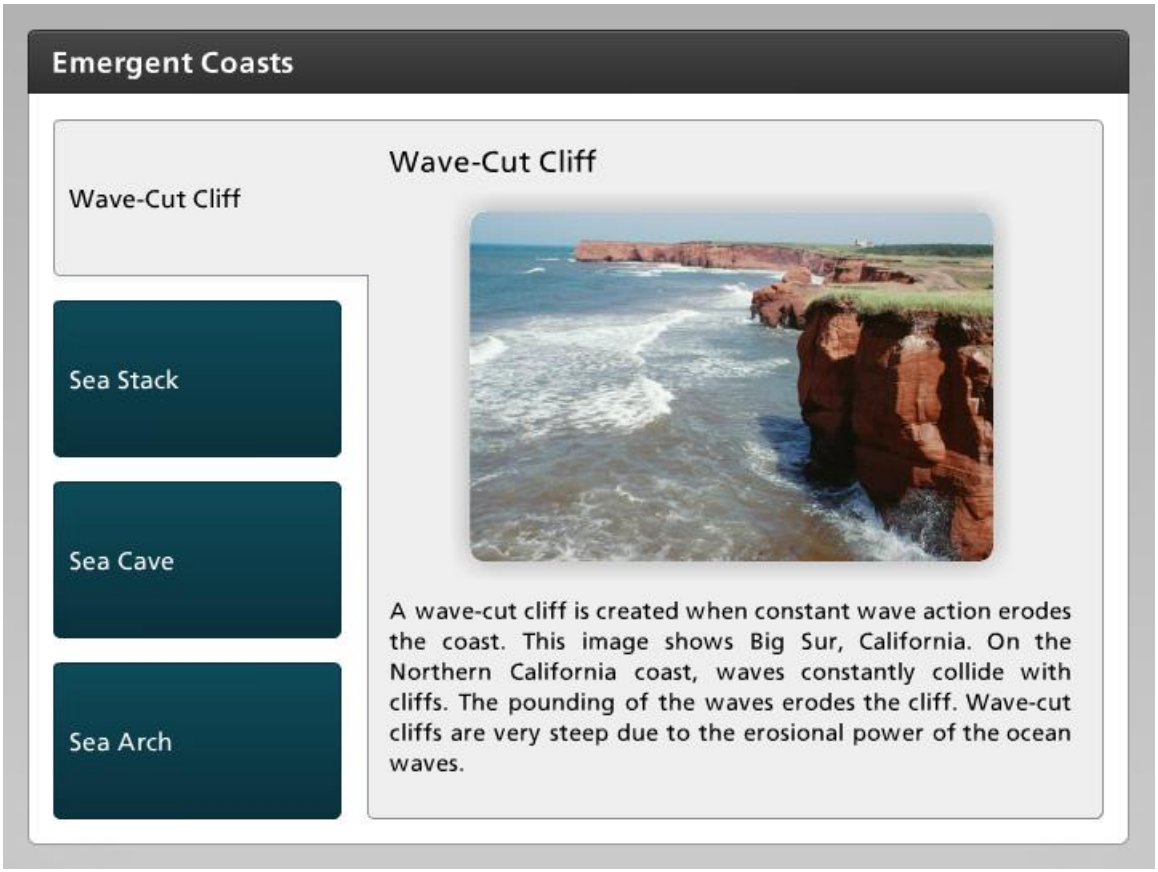
Wave-Cut Cliff



A wave-cut cliff is created when constant wave action erodes the coast. This image shows Big Sur, California. On the Northern California coast, waves constantly collide with cliffs. The pounding of the waves erodes the cliff. Wave-cut cliffs are very steep due to the erosional power of the ocean waves.

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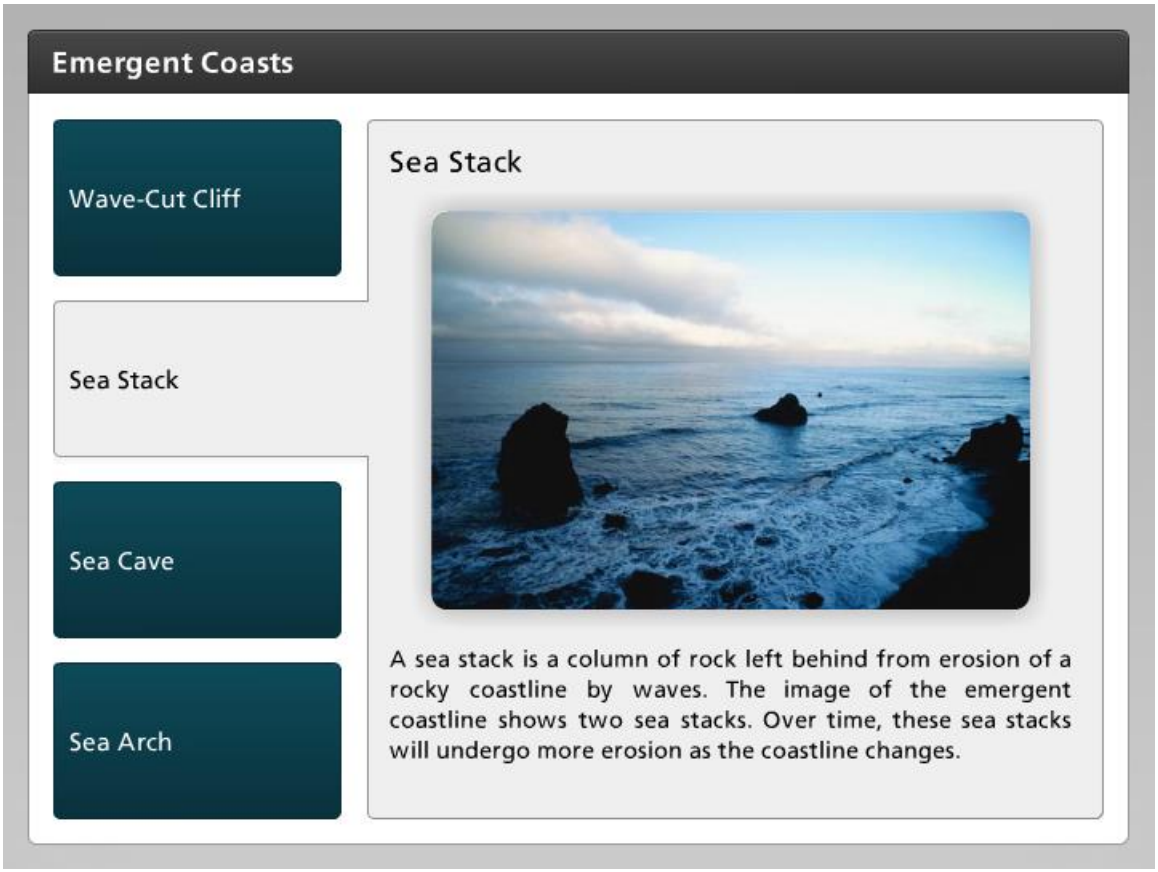
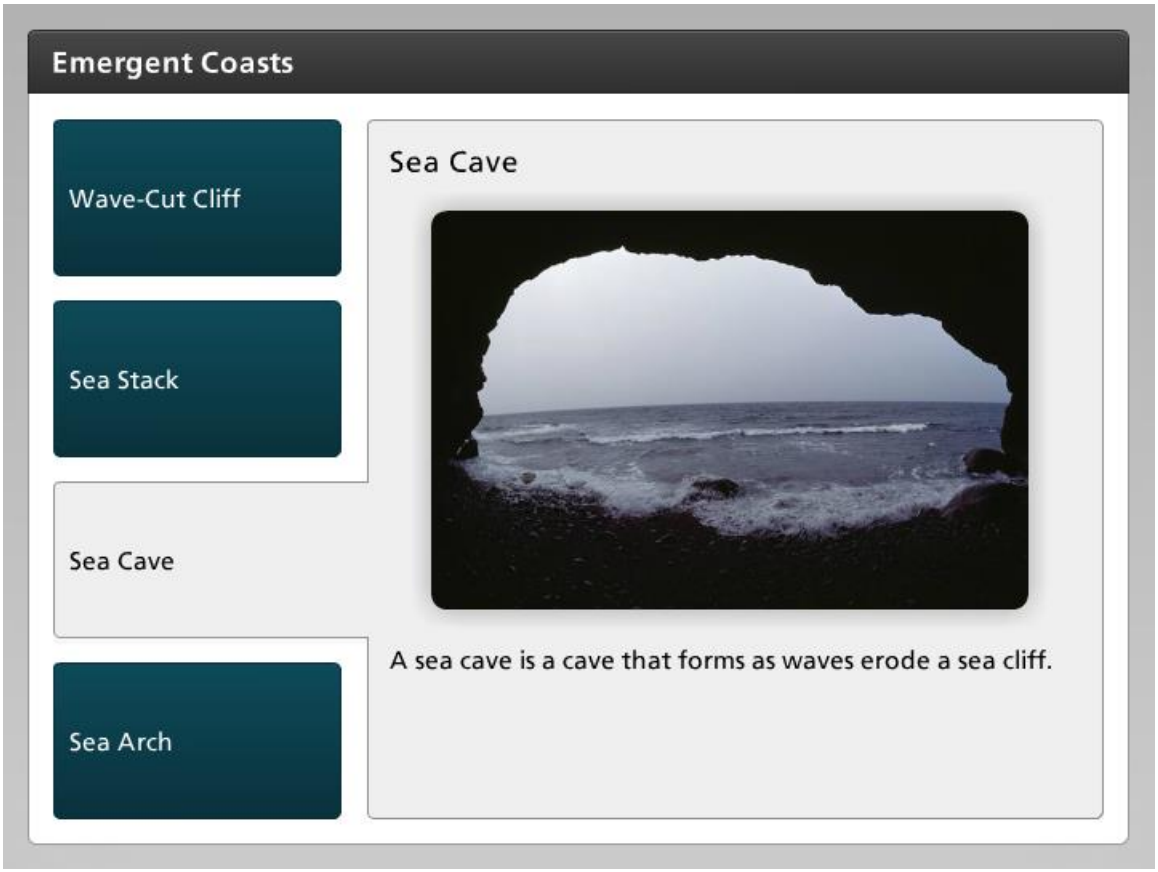
Sea Stack



A sea stack is a column of rock left behind from erosion of a rocky coastline by waves. The image of the emergent coastline shows two sea stacks. Over time, these sea stacks will undergo more erosion as the coastline changes.

Sea Cave



A sea cave is a cave that forms as waves erode a sea cliff.

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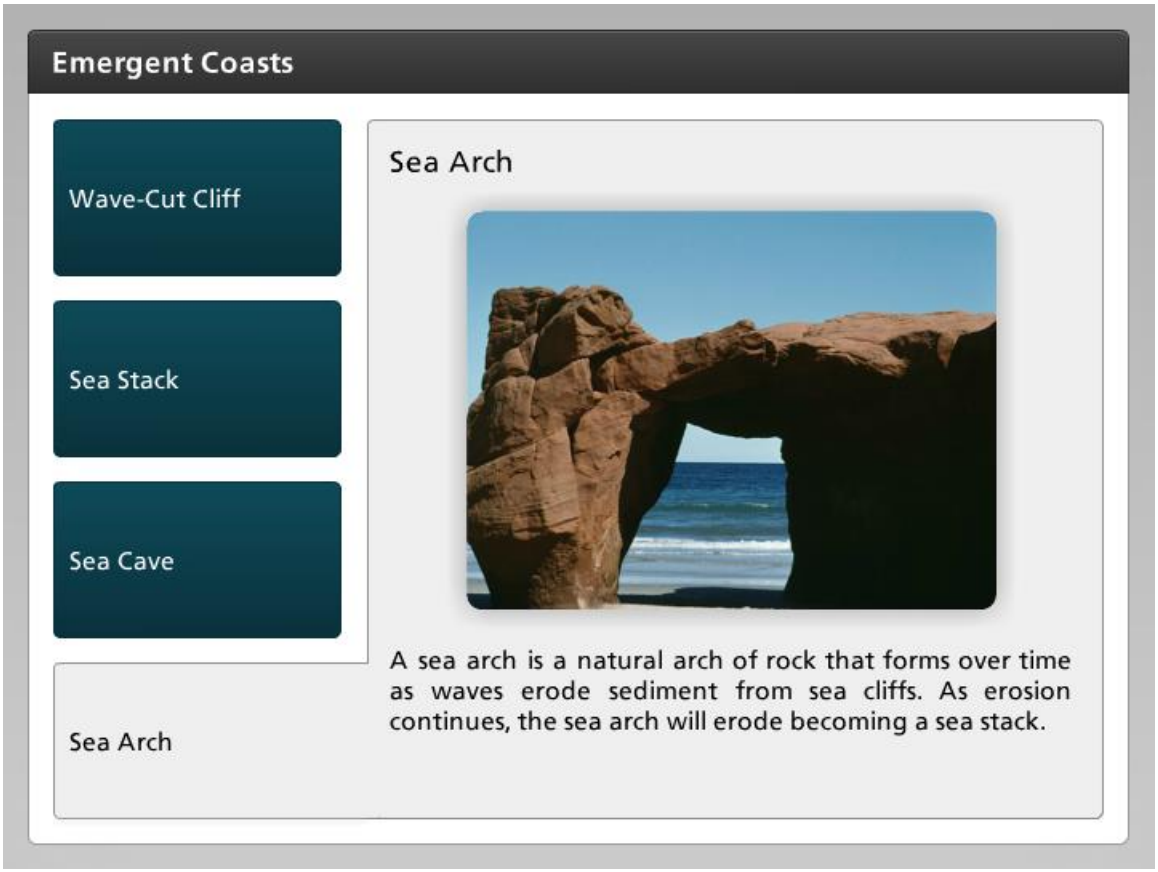
Sea Arch



A sea arch is a natural arch of rock that forms over time as waves erode sediment from sea cliffs. As erosion continues, the sea arch will erode becoming a sea stack.