Key Facts about Nazca Ridge

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About Nazca Ridge:

- It is a submarine ridge located in the **southeastern Pacific Ocean off** the **coast of South America.**
- It is approximately 1,100 kilometers (684 miles) long and varies in width.
- The ridge **extends from** the **Nazca Plate, off the coast of Peru**, and **runs southwest toward Easter Island, Chile.**
- It was **formed by volcanic activity** associated with a hotspot in the Earth's mantle.
- The ridge is **composed of** abnormally **thick basaltic ocean crust.**
- The ridge is **tectonically active** and is being **subducted beneath** the **South American Plate at** the **Peru-Chile Trench.**

What is a Seamount?

- A seamount is an **underwater mountain** with **steep sides** rising from the seafloor.
- Most seamounts are **remnants of extinct volcanoes.**
- **Typically**, they are **cone-shaped** but often **have other prominent features** such as **craters and linear ridges,** and some, called **guyots, have large, flat summits**.

- There is a broad size distribution for seamounts, but **to be classified as a seamount**, the feature **must have a vertical relief of** at least **1,000 meters (3,300 feet)** above the surrounding seafloor.
- Seamounts are **found in every world ocean** basin.
- These are **formed near mid-ocean ridges**, where the earth's tectonic plates are moving apart, allowing molten rock to rise to the seafloor.
- Some seamounts have **also been found near intraplate hotspots** – regions of heavy volcanic activity within a plate – and oceanic island chains with a volcanic and seismic activity called island arcs.

Q1: What is ocean crust?

Oceanic crust, the outermost layer of Earth's lithosphere that is found under the oceans and formed at spreading centres on oceanic ridges, which occur at divergent plate boundaries. Oceanic crust is about 6 km (4 miles) thick. It is composed of several layers, not including the overlying sediment. The topmost layer, about 500 metres (1,650 feet) thick, includes lavas made of basalt (that is, rock material consisting largely of plagioclase [feldspar] and pyroxene).

Source: Ocean World Exploration: A New Seamount And Previously Unknown Species Discovered