

Environmental Science AMI 5

The Ocean Floor

There are many of the same formations on the ocean floor as there are on land.

A mid-ocean ridge is a huge mountain range that runs down the middle of some oceans. Scientists think that new crust is made in these underwater mountain ranges. Hot magma pushes up through openings in the ridges. The magma then cools and hardens into rock on either side of the ridge. This causes sea floor spreading, which is the slow but steady pushing of the sea floor crust away from the ridge. Most underwater earthquakes occur along the mid-ocean ridge.

Even though the ocean floor is spreading, this does not mean that the Earth's surface is getting bigger. Remember the theory of plate tectonics. Sometimes one plate slips under another plate. The lower plate happens in oceans as well as on land. Deep trenches form in the ocean where one plate slips under another plate.

The edges of the continents drop gradually to the bottom of the ocean. The gentle slope from the shore is called the continental shelf. The ocean floor drops off at the edge of the continental shelf. This steep cliff between the continental shelf and the bottom of the ocean is the continental slope. The continental slope leads to the ocean basin, the bottom of the ocean floor. Mid-ocean ridges and ocean trenches are found in the ocean basin.

1. What is a mid-ocean ridge?

2. What causes sea floor spreading?

3. What is sea floor spreading?

4. What is the gentle slope from the shore called?

5. What is the continental slope?
