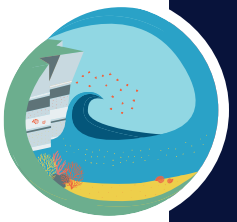

Principle 2:
The ocean and life in the ocean shape the features of Earth.

Rock Cycle

A. Many rocks found on land were formed in the ocean.

A.1. Some rocks found on land were formed from compacted ocean sediments.

A.2. Sediment is made up of materials that sink to the bottom of the ocean, which may include the shells of dead ocean organisms.

A.3. Dead organisms that fall into ocean sediments may become fossils.

A.4. Marine fossils can be found on land in places that used to be covered by the ocean, (e.g., the Rocky Mountains).

A.5. Some rocks found on land were formed in the ocean by underwater volcanic activity.

Erosion

B. The movement of water erodes and deposits materials that shape the coastline.

B.1. The movement of water can break down cliffs, rocks, and other beach materials, which constantly changes the appearance and location of the shoreline.

B.2. Beaches are made of different materials, such as sand, rocks, silt, and organic material.

B.3. Rocks and minerals from the shoreline and from inland are broken down into pebbles, sand, silt, and smaller materials.

B.4. Shells and other hard materials from once-living organisms are broken down into sand, silt, and smaller materials.

B.5. Most sand on most ocean beaches comes from rivers.

B.6. Sand grains come in many shapes, sizes, and colors that provide clues to their origin.

B.7. Rivers carry sediments downstream to the ocean.

B.8. Sediments are deposited at the mouths of rivers, contributing to formation of coastlines.

B.9. Waves and currents move sediment along the coastline.

B.10. Large amounts of sediment from one area can be deposited in other locations along the coast.

See Principle 4: A1

See Principle 1: C2

See Principle 1: B6