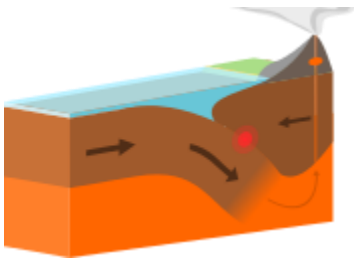
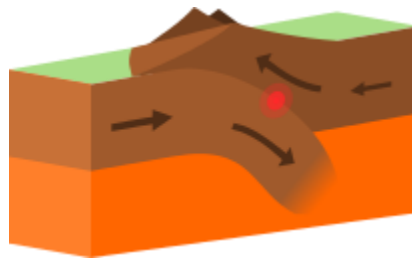


Tectonic Plates Activity

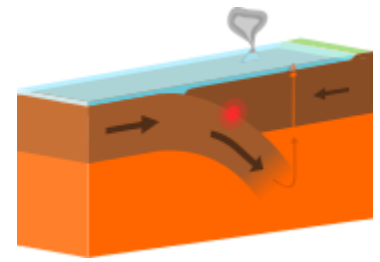
A. Plate boundaries:



oceanic-continental



continental-continental



oceanic-oceanic

(Source: https://en.wikipedia.org/wiki/Convergent_boundary)

B. Convergent plate boundaries: When two plates move toward each other they form either a subduction zone or a continental collision. Pressure, friction, and plate material melting in the mantle, earthquakes, and volcanoes are common near convergent boundaries. In a subduction zone, the denser, subducting plate, made of ocean crust, moves beneath the other, less dense, continental plate.

Convergent boundary examples:

- Collision between the Eurasian Plate and the Indian Plate forming the Himalayas
- Collision between the Australian Plate and the Pacific Plate formed the Southern Alps in New Zealand
- Subduction of the northern part of the Pacific Plate and the NW North American Plate forming the Aleutian Islands
- Subduction of the Nazca Plate beneath the South American Plate to form the Andes
- Subduction of the Pacific Plate beneath the Australian Plate and Tonga Plate, forming the complex New Zealand to New Guinea subduction/transform boundaries
- Collision of the Eurasian Plate and the African Plate formed the Pontic Mountains in Turkey
- Mariana Trench is the deepest known part of the world's oceans, located in the western Pacific Ocean, to the east of the Mariana Islands; it is about 2,550 kilometers (1,580 miles) long with an average width of 69 kilometers (43 miles), and reaches a maximum-known depth of 10,994 meters (36,070 feet)
- Subduction of the Juan de Fuca Plate beneath the North American Plate to form the Cascade Range

(Source: https://en.wikipedia.org/wiki/Convergent_boundary)

C. Divergent plate boundaries: Plates move away from each other. Divergent boundaries within continents initially produce rifts which eventually become rift valleys. Most active divergent plate boundaries occur between oceanic plates and exist as mid-ocean ridges. Divergent boundaries also form volcanic islands which occur when the plates move apart to produce gaps in which molten lava rises and fills.

Divergent boundary examples:

- Mid-Atlantic Ridge is located along the floor of the Atlantic Ocean, and part of the longest mountain range in the world
- Red Sea Rift is a spreading center between two tectonic plates, the African Plate and the Arabian Plate
- Baikal Rift Zone is a series of continental rifts centered beneath Lake Baikal in southeastern Russia
- East African Rift is an active continental rift zone in East Africa
- East Pacific Rise is a mid-oceanic ridge, located along the floor of the Pacific Ocean, separating the Pacific Plate to the west from (north to south) the North American Plate, the Rivera Plate, the Cocos Plate, the Nazca Plate, and the Antarctic Plate
- Gakkel Ridge is a mid-oceanic ridge, between the North American Plate and the Eurasian Plate

Divergent boundary examples (continued):

- Galapagos Rise is located between the South American coast and the triple junction of the Nazca Plate, the Cocos Plate, and the Pacific Plate
- Explorer Ridge is a mid-ocean ridge, located about 241 kilometers (150 miles) west of Vancouver Island, British Columbia, Canada
- Juan de Fuca Ridge is a tectonic spreading center located off the coasts of the state of Washington in the United States and the province of British Columbia, Canada
- Pacific-Antarctic Ridge is located on the seafloor of the South Pacific Ocean, separating the Pacific Plate from the Antarctic Plate
- West Antarctic Rift is a major, active rift valley lying between East and West Antarctica, encompassing the Ross Sea, the area under the Ross Ice Shelf and a part of West Antarctica
- Great Rift Valley is a name given to the continuous geographic trench, approximately 6,000 kilometers (3,700 miles) in length, that runs from Lebanon's Beqaa Valley in Asia to Mozambique in South Eastern Africa

(Source: https://en.wikipedia.org/wiki/Divergent_boundary)

D. Transform plate boundaries: These faults neither create nor destroy lithosphere. Motion is mostly horizontal, meaning that plates slide past each other rather than above or below each other. Transform faults are often connected on both ends to other faults, ridges, or subduction zones. Some transform faults are hidden in the deep oceans where they form a series of short zigzags, allowing seafloor spreading.

Transform plate boundary examples:

- San Andreas Fault links the East Pacific Rise off of the West coast of Mexico (Gulf of California) to the Mendocino Triple Junction (Part of the Juan de Fuca plate) located off the coast of the North Western United States
- Middle East's Dead Sea Transform fault is a series of faults that run from the Maras Triple Junction (a junction with the East Anatolian Fault in southeastern Turkey) to the northern end of the Red Sea Rift (just offshore of the southern tip of the Sinai Peninsula)
- New Zealand's Alpine Fault is a geological fault, specifically a right-lateral strike-slip fault, that runs almost the entire length of New Zealand's South Island, between the Pacific Plate and the Indo-Australian Plate
- Pakistan's Chaman Fault is a major, active geological fault in Pakistan and Afghanistan that runs for over 850 kilometers (510 miles), and is a system of related geologic faults that separates the Eurasian Plate from the Indo-Australian Plate
- Turkey's North Anatolian Fault is an active right-lateral strike-slip fault in northern Anatolia which runs along the transform boundary between the Eurasian Plate and the Anatolian Plate
- North America's Queen Charlotte Fault is an active transform fault that marks the boundary of the North American and the Pacific Plates, and is Canada's right-lateral strike-slip equivalent to the San Andreas Fault to the south in California

(Source: https://en.wikipedia.org/wiki/Transform_fault)

