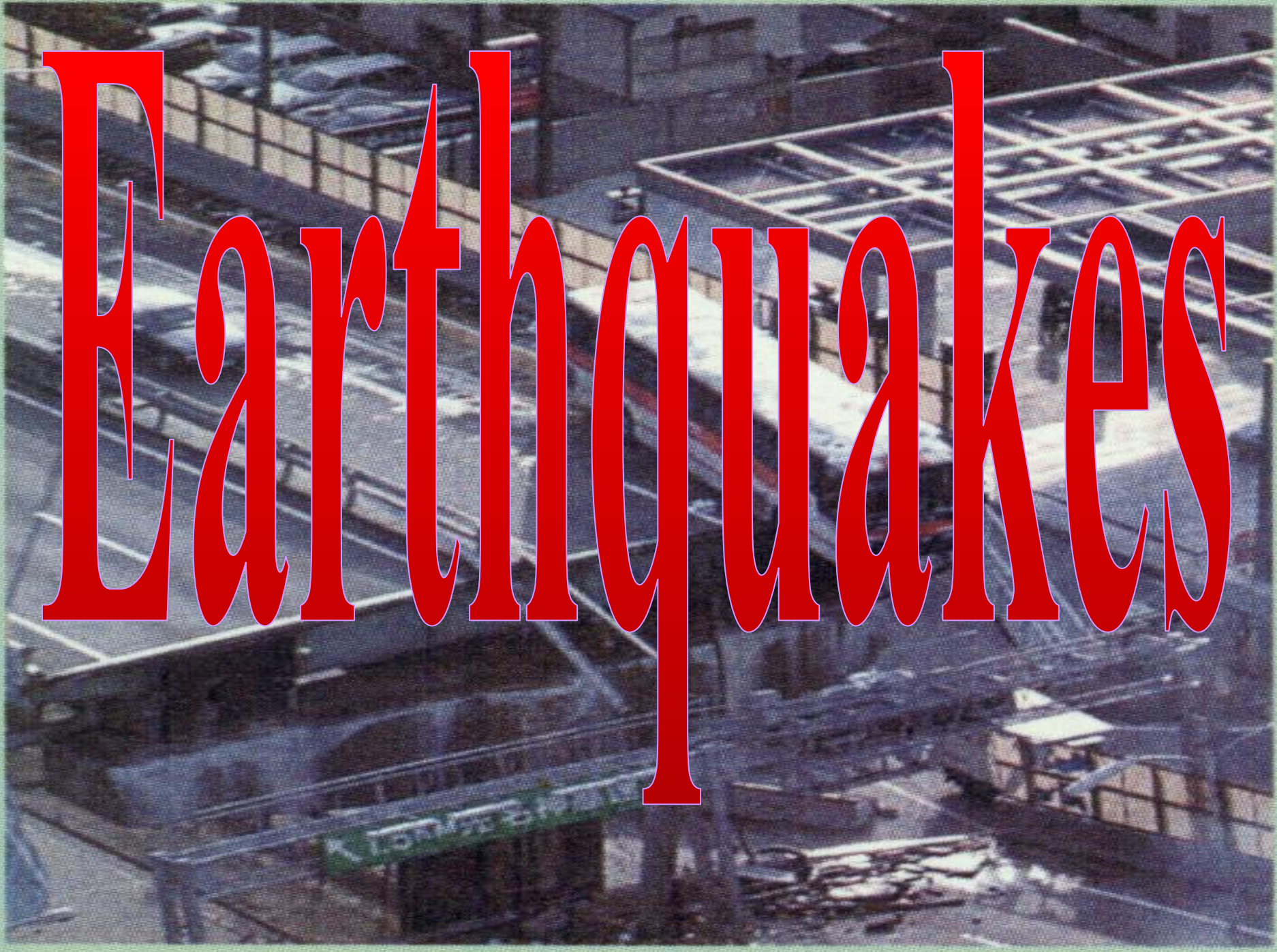
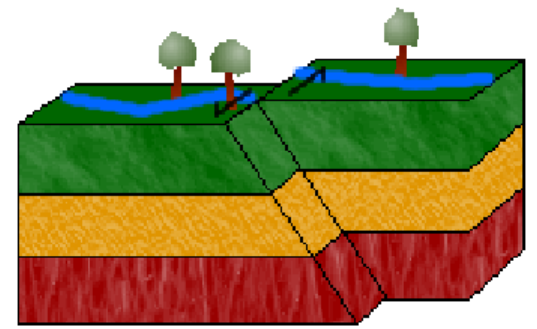


Earthquakes





5-1



Forces Inside Earth

Objectives:

Explain how earthquakes result from the build up of stress in Earth's crust.

Contrast normal, reverse, and strike-slip faults.

Causes of Earthquakes

When extreme stress is applied to rocks, it causes them to bend and stretch. When they break, they move along surfaces called **faults**.



Earthquake Process

1. Earth's crust is in constant motion.
2. Places stress on rocks.
3. Rocks bend and stretch like rubber bands.
4. Break
5. Produces vibration called **earthquakes**.

There are three types of faults. Each are caused by different forces within the Earth.

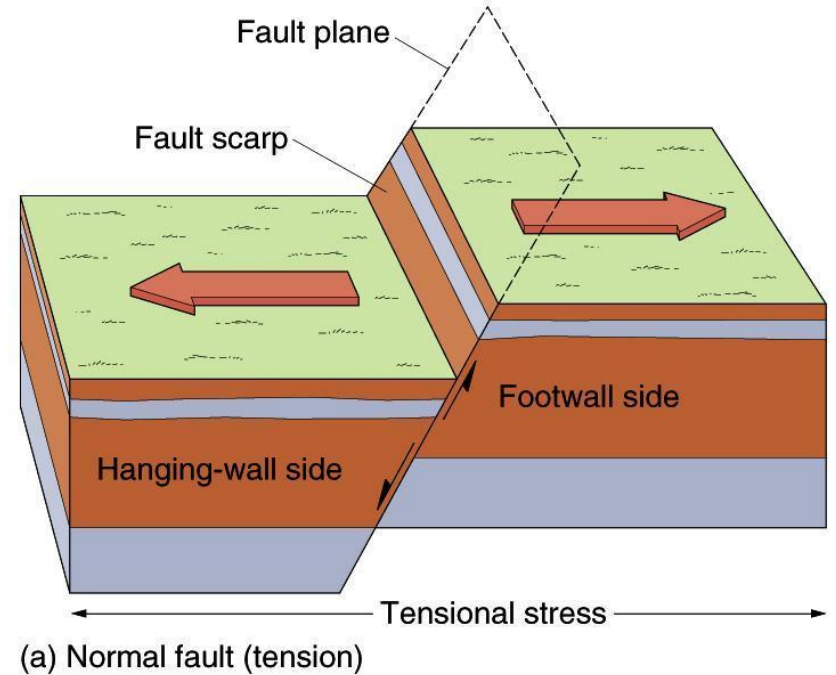
Normal Fault

Reverse Fault

Strike- Slip Fault

Normal Fault

The force that causes a **normal fault** is **tension**. This occurs when plates move apart. One rock will slide up and over while the other will slide down and over.

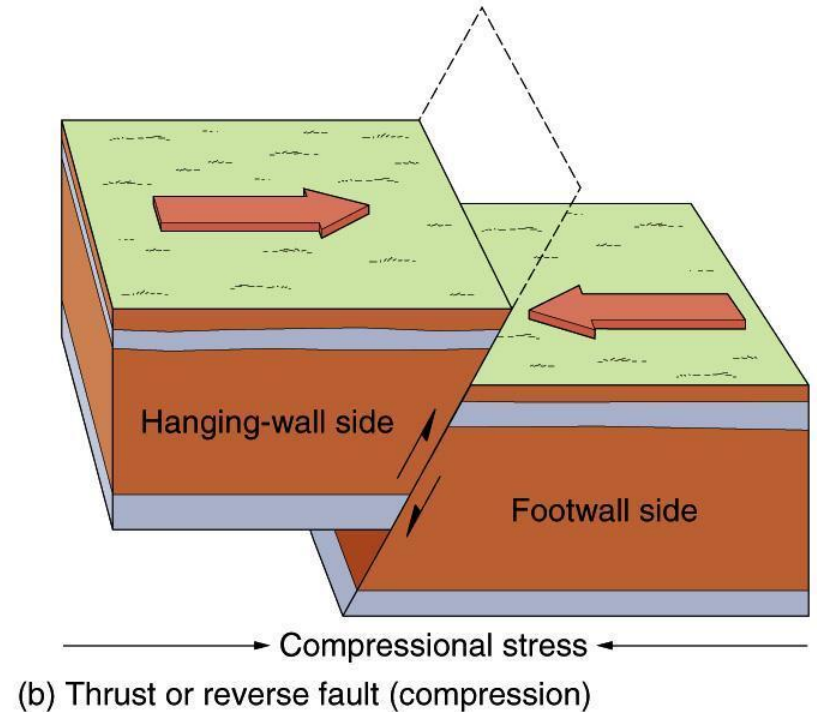


Example: Rio Grande Rift



Reverse Fault

The force that causes a **reverse fault** is **compression**. This happens when plates come together. Rocks at the surface are forced up and over the ones below the surface.

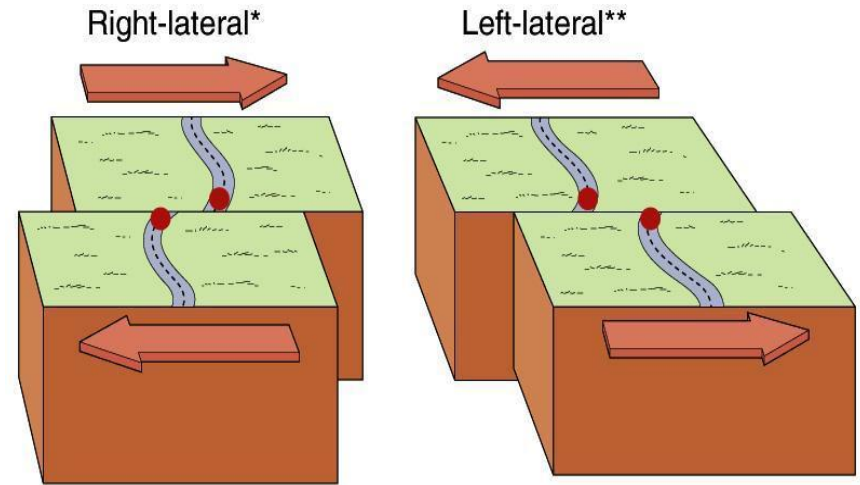


Example: Rocky
Mountains



Strike-slip Fault

The force that causes a **strike-slip** fault is called **shearing**. This happens when two plates move past each other without much up or down movement.



(c) Strike-slip fault (lateral shearing)

* Viewed from either dot on each road, movement to opposite side is *to the right*.

** Viewed from either dot on each road, movement to opposite side is *to the left*.

Example:

San Andreas Fault

