

Objectives

- **Describe** two types of stress that deform rocks.
- **Describe** three major types of folds.
- **Explain** the differences between the three major types of faults.

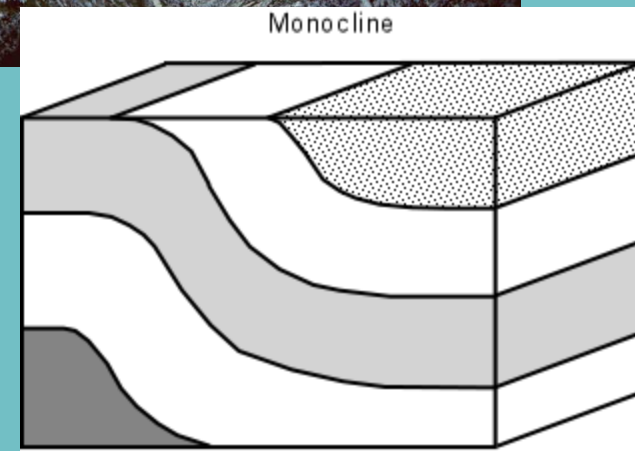
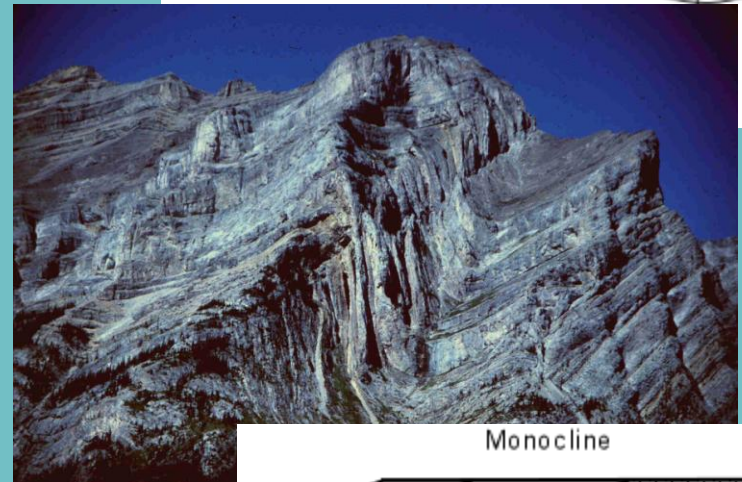
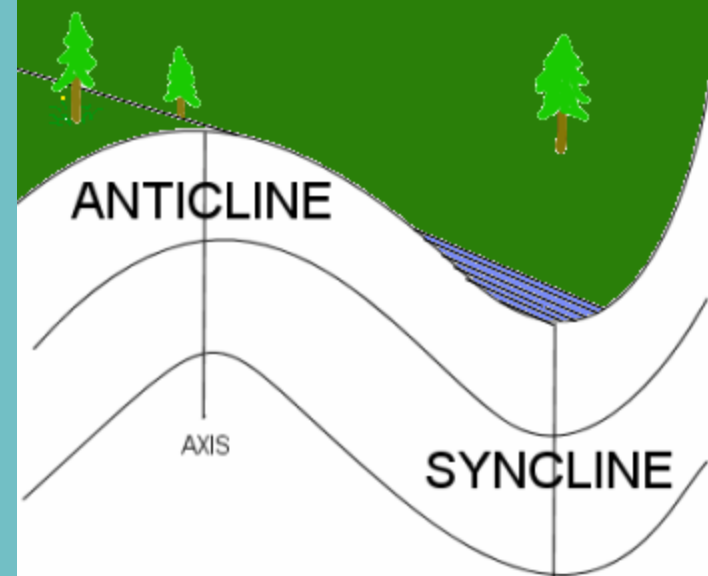
I. Deformation

- A. What Is Deformation?** The process by which the shape of a rock changes because of stress is called *deformation*.
- B. Compression and Tension** The type of stress that occurs when an object is squeezed, such as when two tectonic plates collide, is called compression. Another form of stress is *tension*. Tension is stress that occurs when forces act to stretch an object.

II. Folding

A. What Is Folding? The bending of rock layers because of stress in the Earth's crust is called folding.

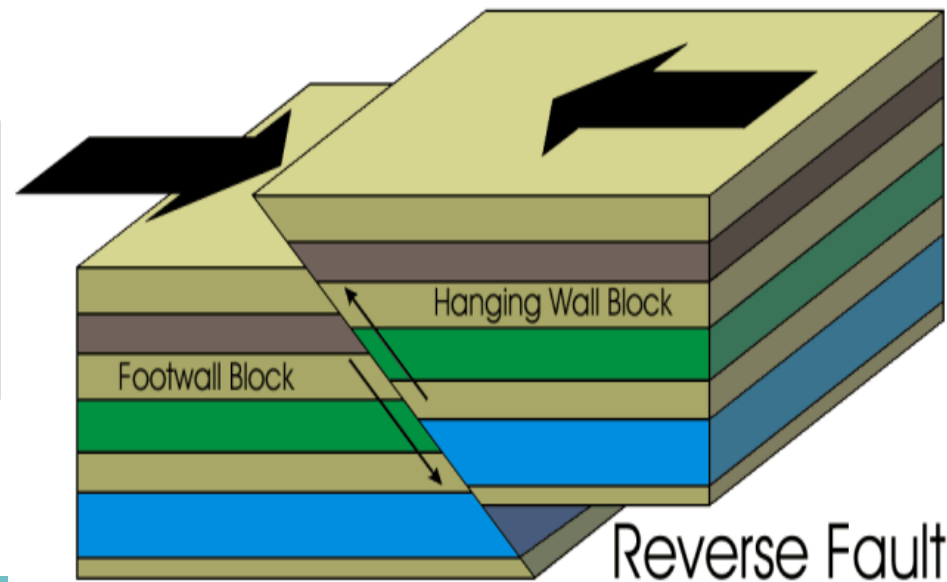
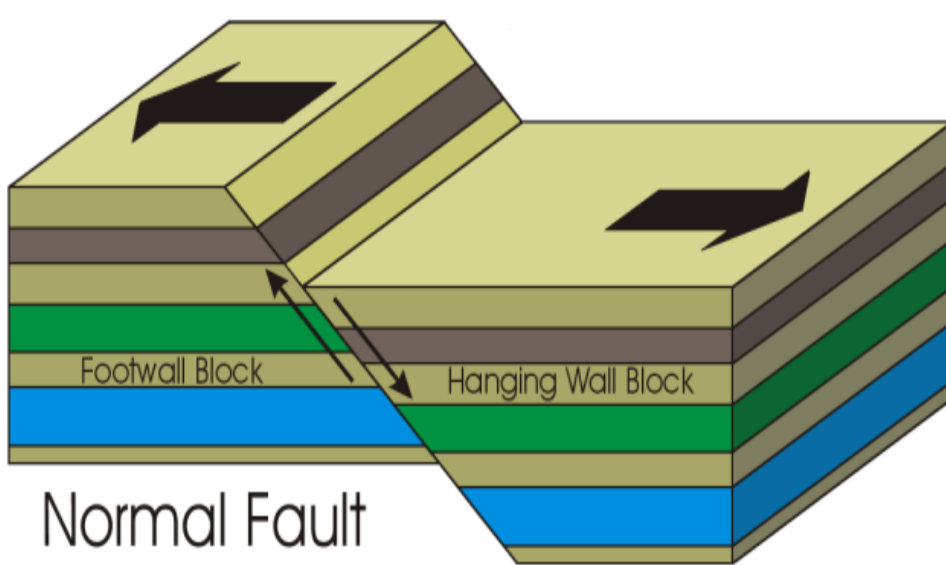
B. Types of Folds The two most common types of folds— *anticlines*, or upward-arching folds, and *synclines*, down-ward, trough-like folds. Another type of fold is a *monocline*. In a monocline, rock layers are folded so that both ends of the fold are horizontal.



III. Faulting

A. Normal Faults When a normal fault moves, it causes the hanging wall to move down relative to the footwall.

B. Reverse Faults When a reverse fault moves, it causes the hanging wall to move up relative to the footwall.



III. Faulting

C. Telling the Difference Between Faults You can tell what kind of fault a fault is by looking at the order of sedimentary rock layers on each side of the fault.

D. Strike-Slip Faults Strike-slip faults form when opposing forces cause rock to break and move horizontally.

