

## Notes: Inside Earth 2.1 Forces In Earth's Crust

Stress in the Earth's crust cause changes to the shape and volume of rocks.

### Types of Stress

There are three basic types of stress...

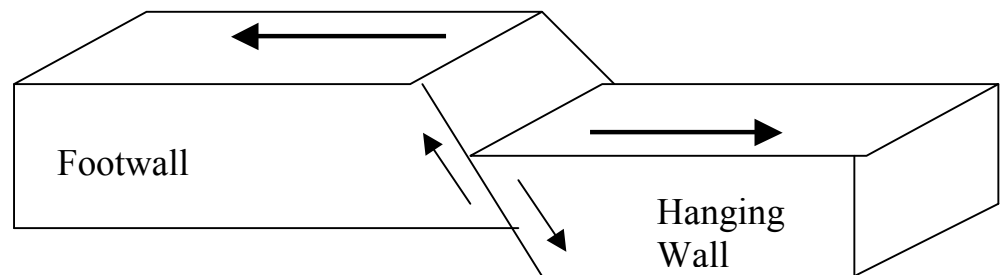
- 1) Tension- This stress pulls on the crust where plates are moving apart, stretching rock to become thin in the middle.
- 2) Compression- This stress squeezes rock together where plates are moving toward one another, causing them to fold or break.
- 3) Shearing- This stress pushes rock in different directions, causing them to slip apart or change shape.

### Types of Faults

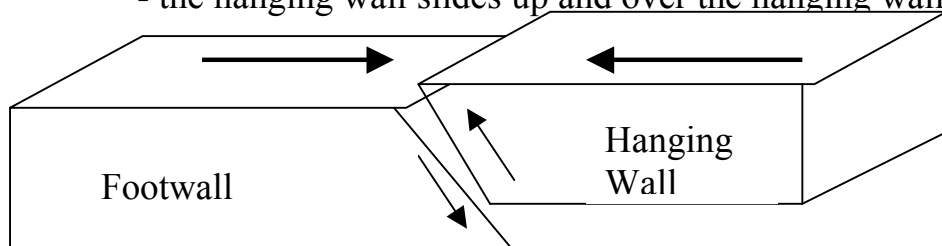
Faults are created where breaks in the rock of the crust occur. Faults usually occur At plate boundaries where the forces of pushing and pulling are greatest.

There are three main types of faults...

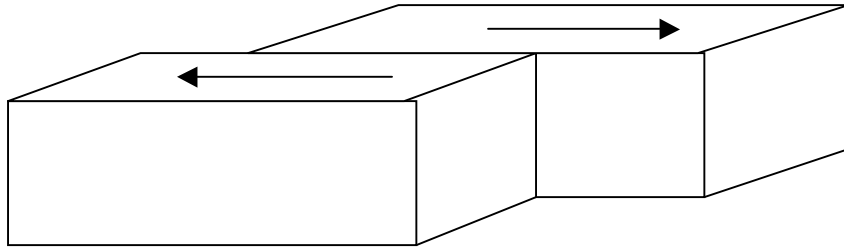
- 1) Normal Faults- occurs at an angle, where the crust is being pulled apart.  
- one block lies above the fault (hanging wall), while the other lies below the fault (footwall)



- 2) Reverse Fault- occurs at an angle, where the crust is being pushed together.  
- the hanging wall slides up and over the hanging wall.



- 3) Strike-Slip Fault- the crust on either side of the fault slide past one another  
- there is little up and down motion.



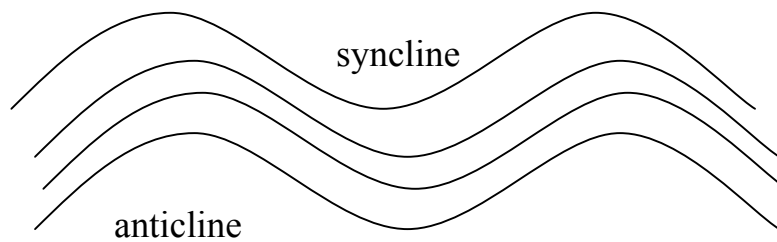
### Changing Earth's Surface

Over millions of years, flat land can change shape in many ways.

#### Folding Earth's Crust

A fold in a rock that bends upward is called an anticline.

A fold in a rock that bends downward to form a valley is called a syncline.



#### Stretching Earth's Crust

Fault-block mountains form between two faults.

#### Uplifting Earth's Crust

Plateaus are large areas of uplifted land high above sea level.