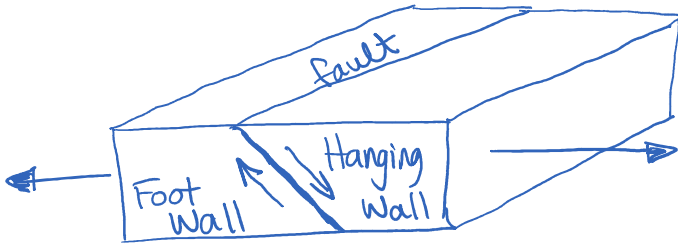
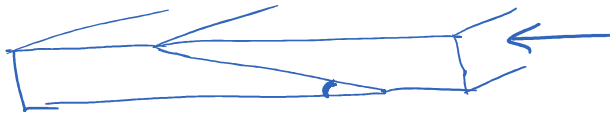
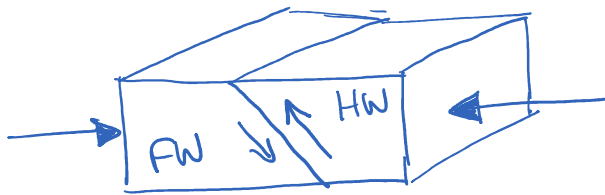


Faults



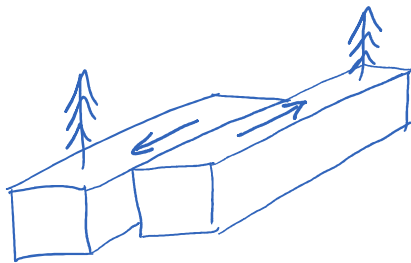
Normal fault

- hanging wall (HW) slides down relative to the foot wall (FW)
- occurs at diverging plate boundaries



Reverse Fault

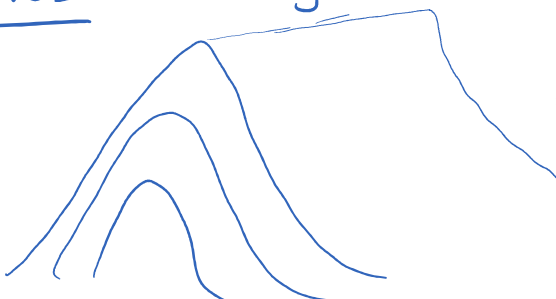
- HW slides up relative to FW
- converging plate boundaries
- low angle reverse fault is called a thrust fault



Strike-Slip or Transcurrent Fault

- plates move past each other laterally with no vertical motion (no up/down motion)

Folds - always at converging boundaries

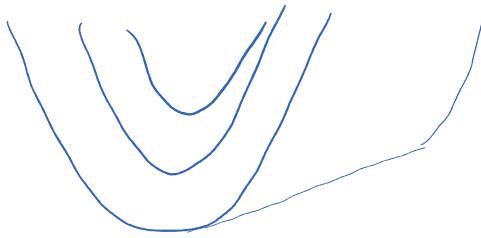


Anticline

- an upfold in the rock layers
- "anthill"



"ant hill"



Syncline

- a downfold in the rock layers

"smile"



Overtured fold



- ages of rocks end up out of sequence.

Which way is up?

When a layer forms, one side is the top side. The layers can be overturned and eroded so that the top layer is now older than the layers under it. Then we need to realize that the layer is upside-down:

- ripple marks and raindrop prints form on top.
- shells tend to settle open-side down 
- mudcracks widest at top 
- graded bedding (heaviest particles at bottom, finest at top)

Mountain Ranges

mt range	Where?	How formed
Himalayas	N. India	continent - continent collision (reverse faults + folds)

Himalayas	N. India	continent - continent collision (reverse faults + folds)
Appalachians	Eastern North America	fold mts - mid plate
Alps	N. Italy	c-c collision (reverse faults + folds)
Rockies	BC/Alberta	" " "
Cascades	western North America	o-c subduction (volcanoes)
Andes	Western South America	" " "