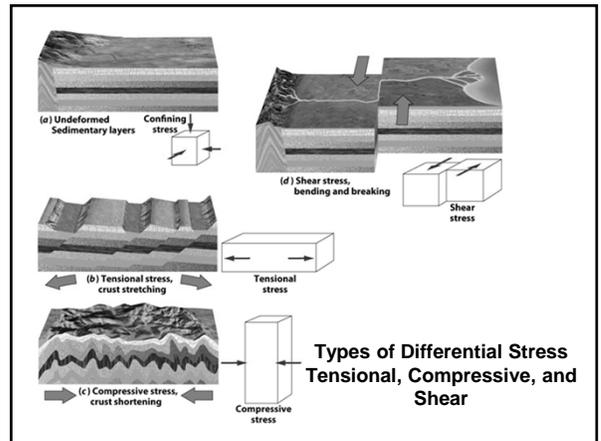




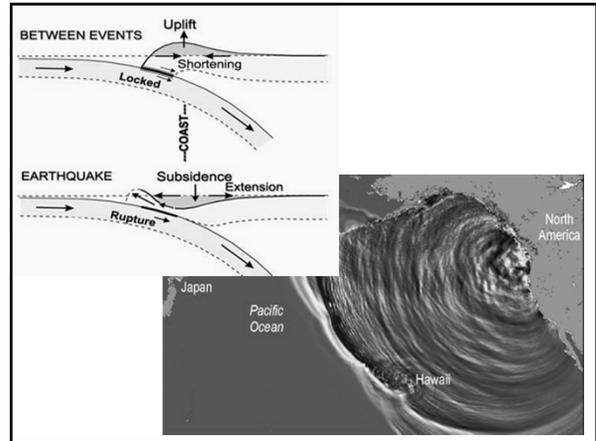
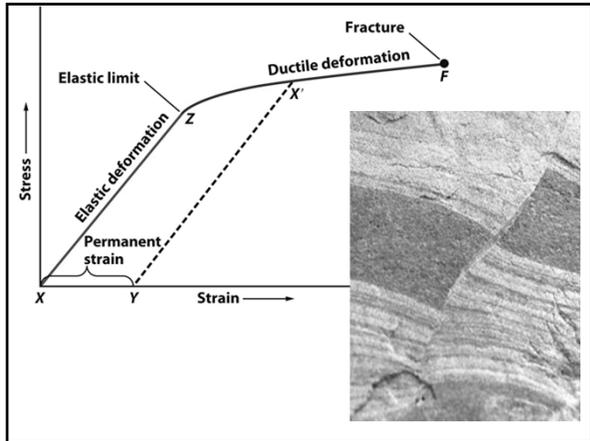
**Rocks in the Crust Are Bent, Stretched, and Broken ...**  
 ...by directed stresses that cause Deformation.



*Strain is the change in shape and or volume of a rock caused by Stress.*

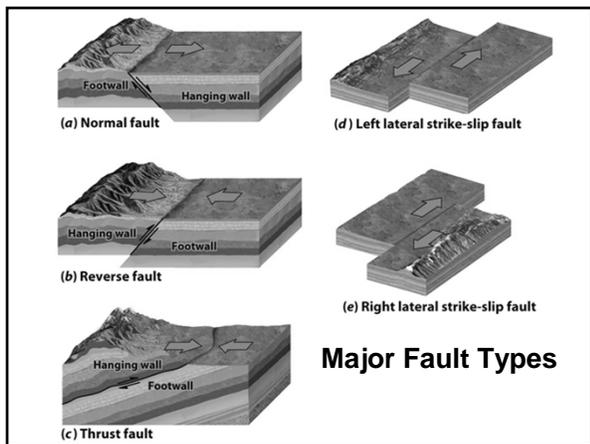
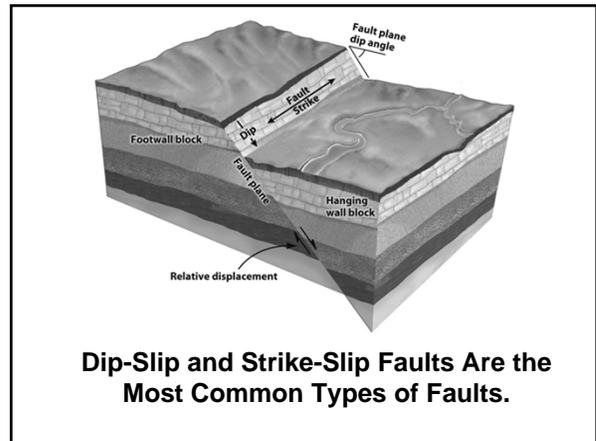
Strain occurs in 3 stages: elastic deformation, ductile deformation, brittle deformation

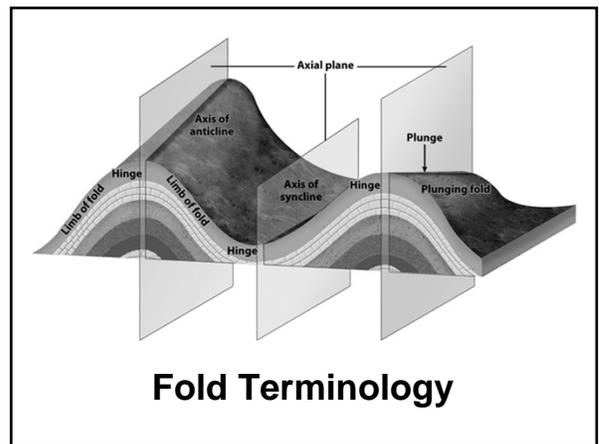
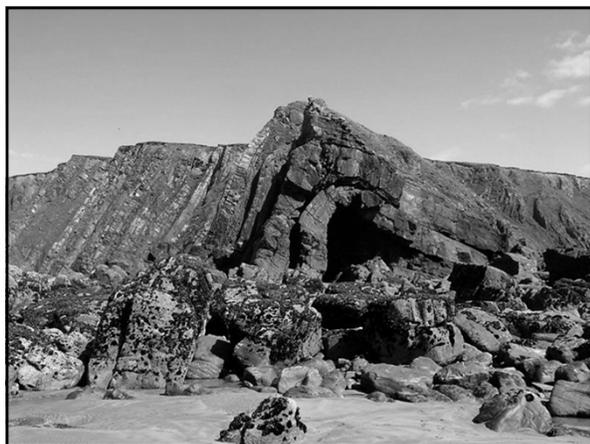
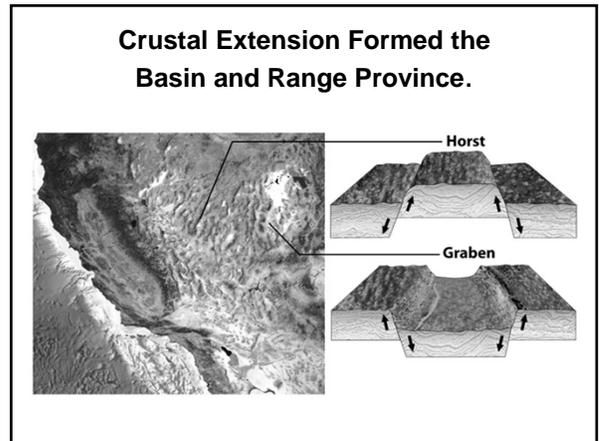
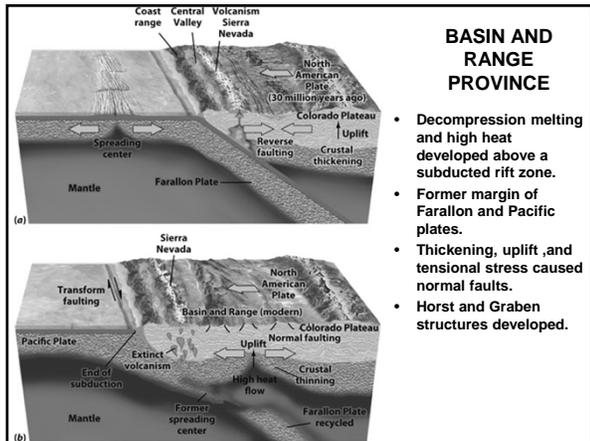
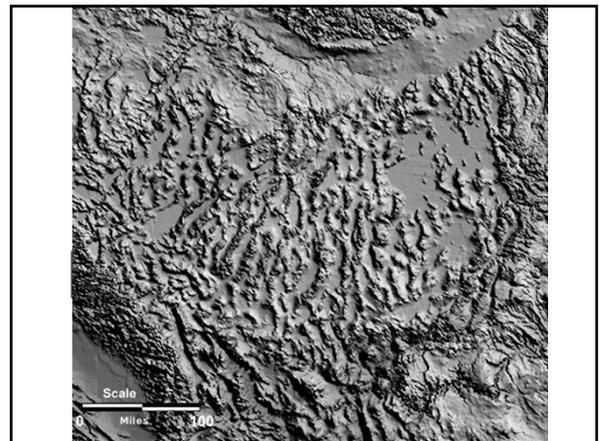
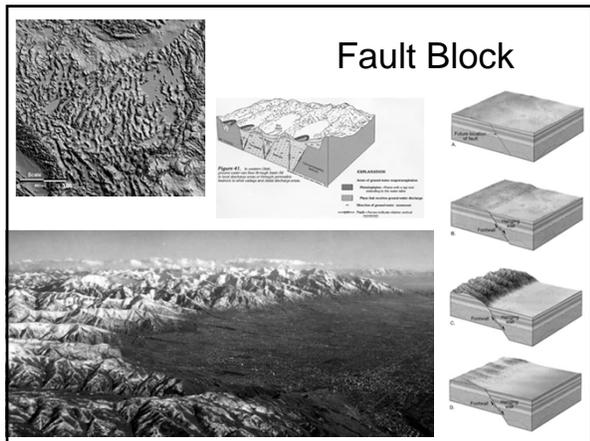
**Joints, Folds, and Faults**



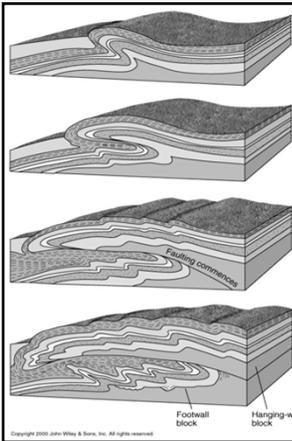
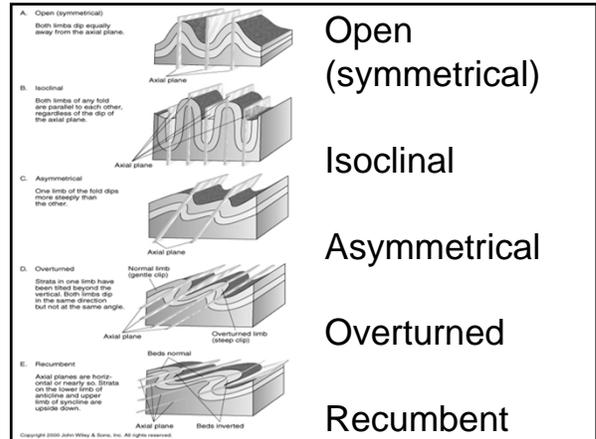
### Type of Strain Dependent on ...

- Temperature
- Confining Pressure
- Rate of Strain
- Presence of Water
- Composition of the Rock

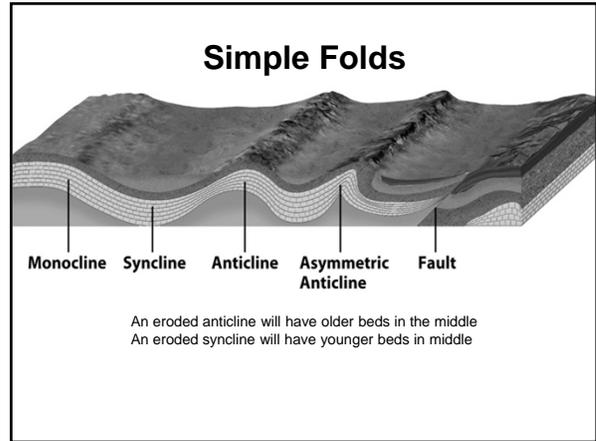




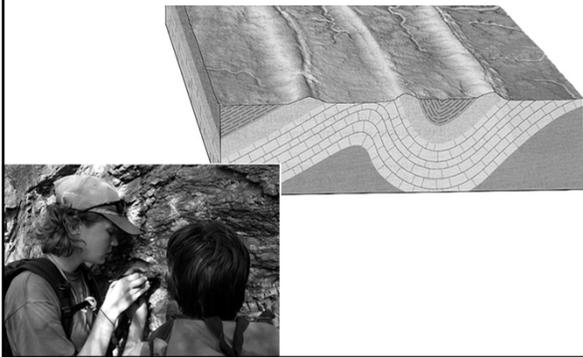
Anticline – convex upward arch with older rocks in the center of the fold

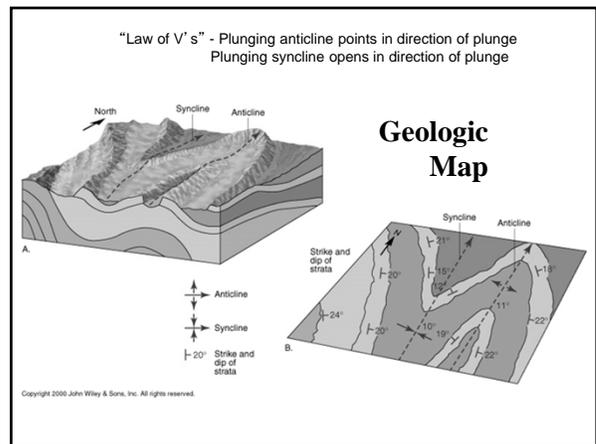
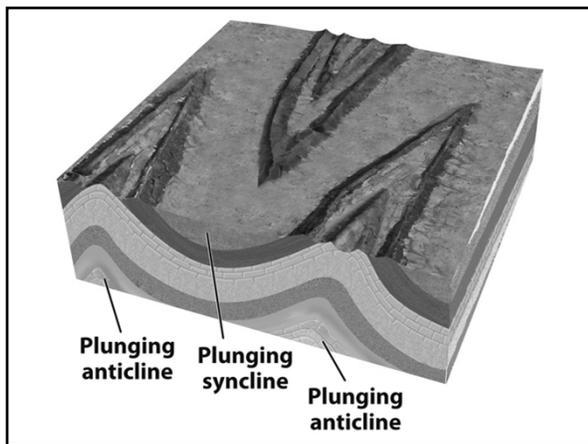
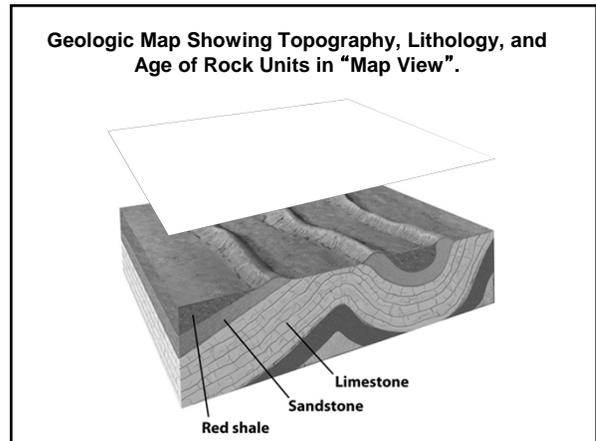
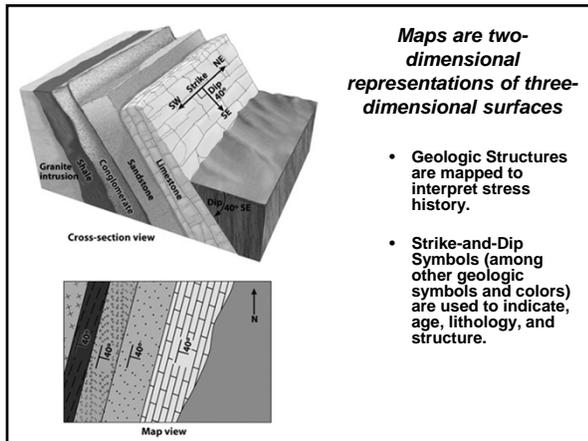
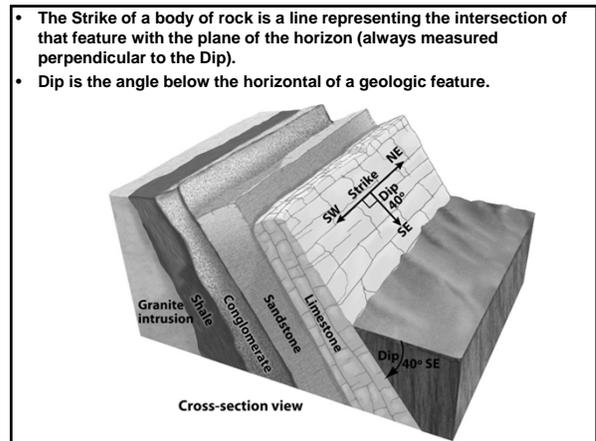
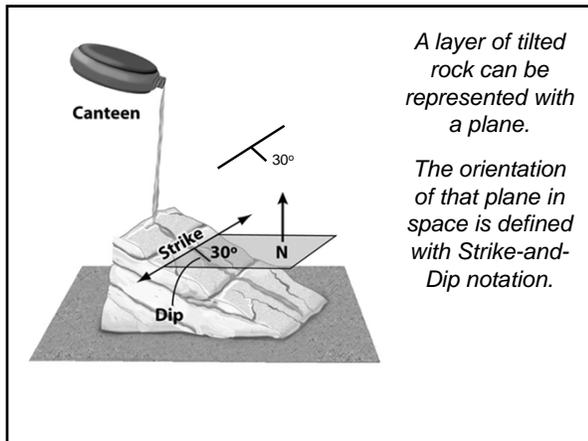


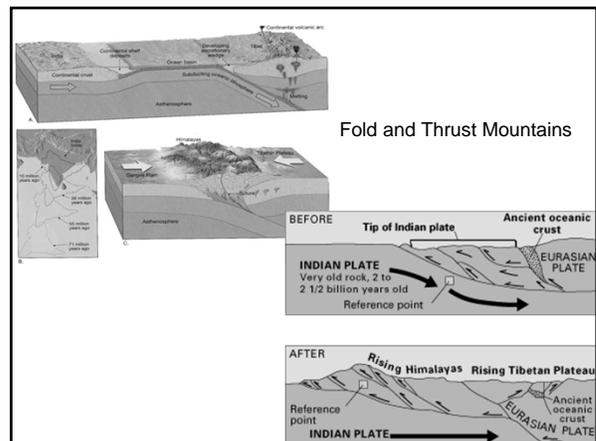
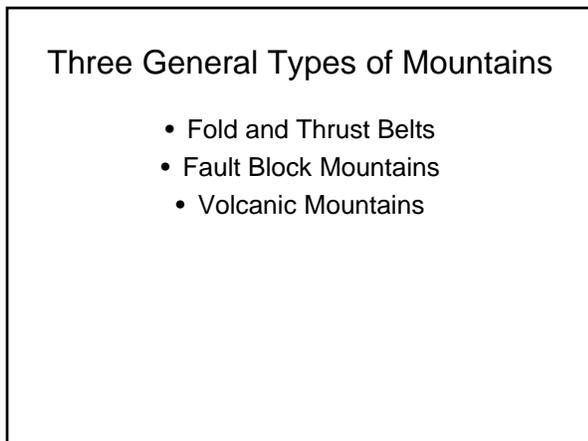
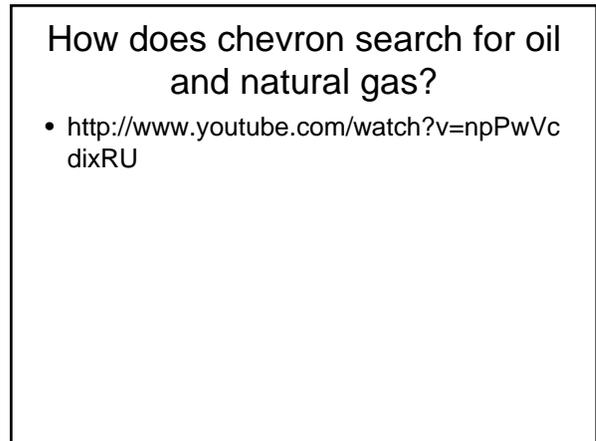
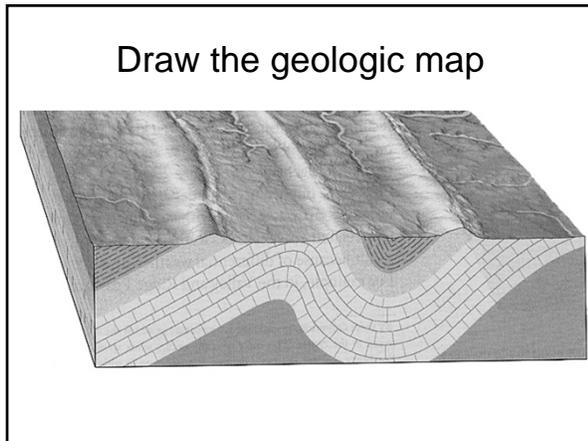
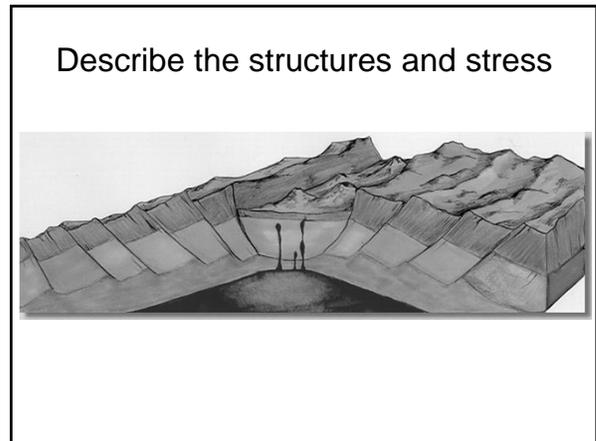
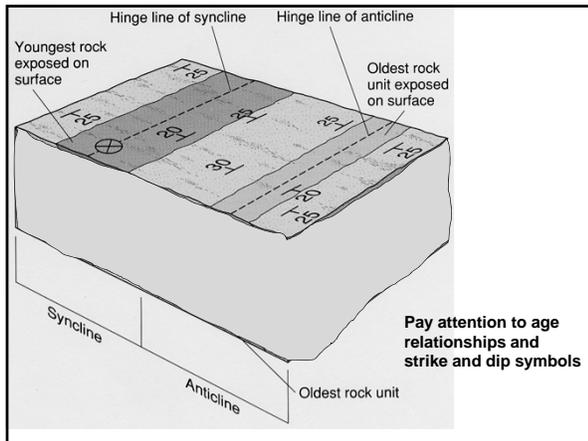
Evolution of a fold into a reverse fault



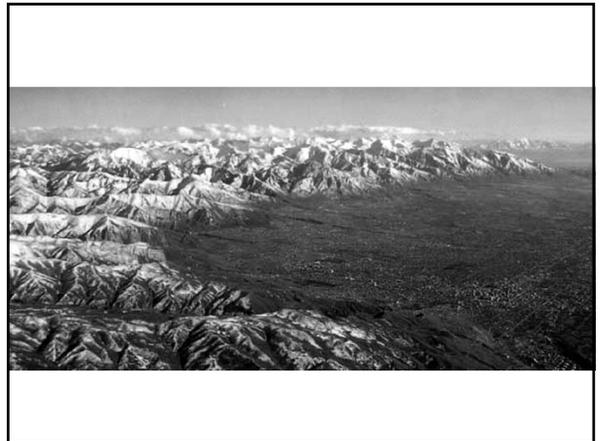
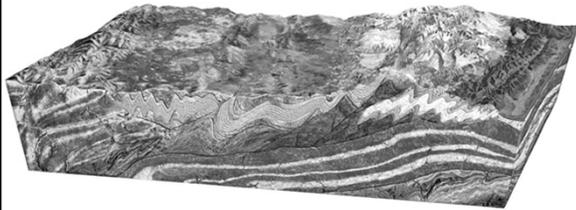
Outcrop patterns







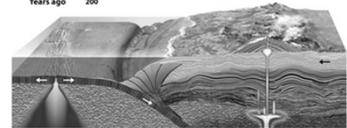
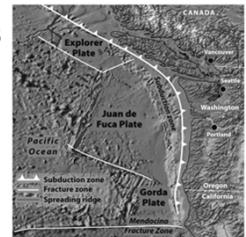
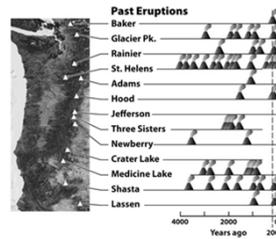
## Fold and Thrust Mountains



## Fault Block Mountains



## CASCADE MOUNTAINS



## Volcanic Mountains

