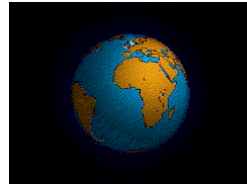## Continental Drift

match continent
  shapes
  fossils
  rock types

play

200-250 million years ago
  single continent
    Pangea
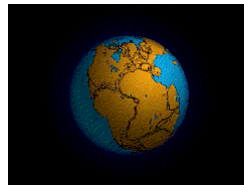 single ocean
    Panthalassa

150 million years ago
  Laurasia in north
  Gondwana in south

play

70 million years ago
  current continents
  different positions

Seafloor Spreading - explained how continents could move

ocean floor young compared to land
little sediment - igneous rock

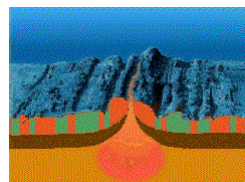## Midocean Ridge - mountain range in center of oceans

molten rock from mantle
  rises through crack
  spreads outward and hardens
carries continents along
record of Earth's magnetic field

play

Plate Tectonics - movement of large sections of Earth's crust

plate
  section of crust
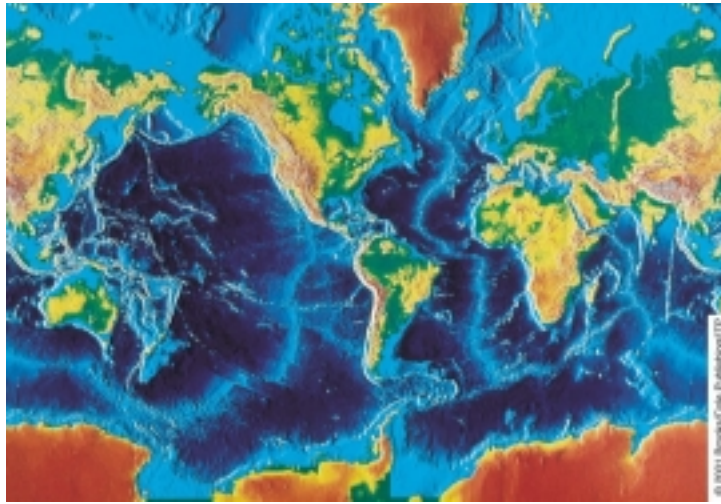tectonics
  Greek for "builder"

06-03

plates move because mantle is highly plastic just below surface
convection current rise from center, break crust
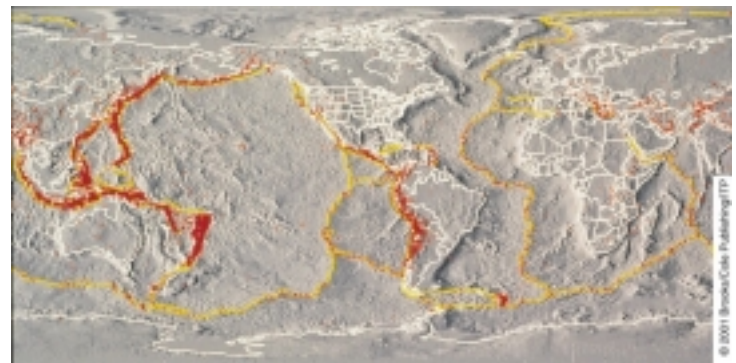   slide at rates of a few cm/yr
midocean rise and rift - where new crust is formed
subduction zone - old crust destroyed, deepest part of oceans
   melts, low-density magma rises, volcanos, mountains

06-04
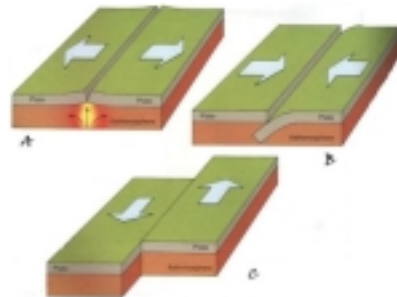
Continental
Drift
continued
motion of
plates

Earthquakes
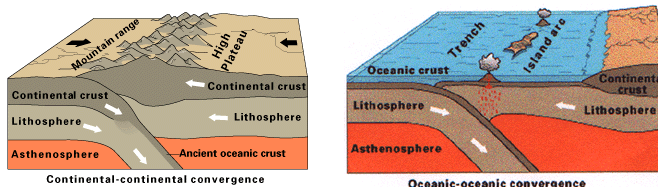along plate
boundaries

06-06

PLATE BOUNDARIES

A. Divergent
new crust created
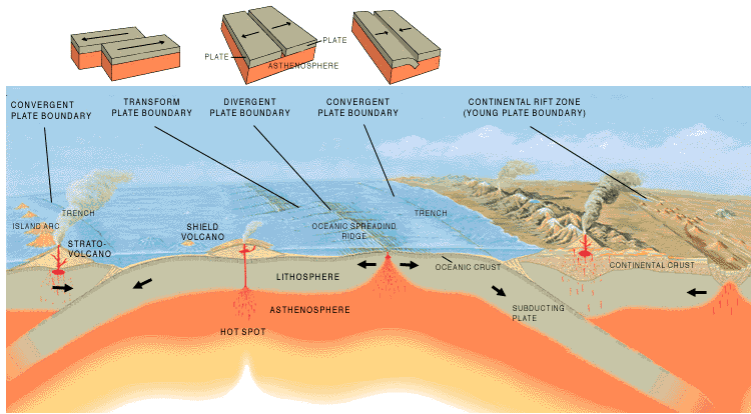plates move apart
mid-Atlantic ridge

B. Convergent
plates pushed together

one plate pushed
   back to mantle
high mountains
   over continents
deep trenches
   in oceans

C. Transform

or Transcurrent
plate slide laterally
   past each other
San Andreas fault

Erosion - Earth sculpting
removal of parts of crust
   to new locations

Weathering reduces rocks
   to loose debris
   that can be moved

chemical
     water, oxygen,
     carbonic acid
   forms new materials

mechanical
   water, waves, freezing
   roots

mass-wasting
   movement to lower ground
   streams, hydraulic action