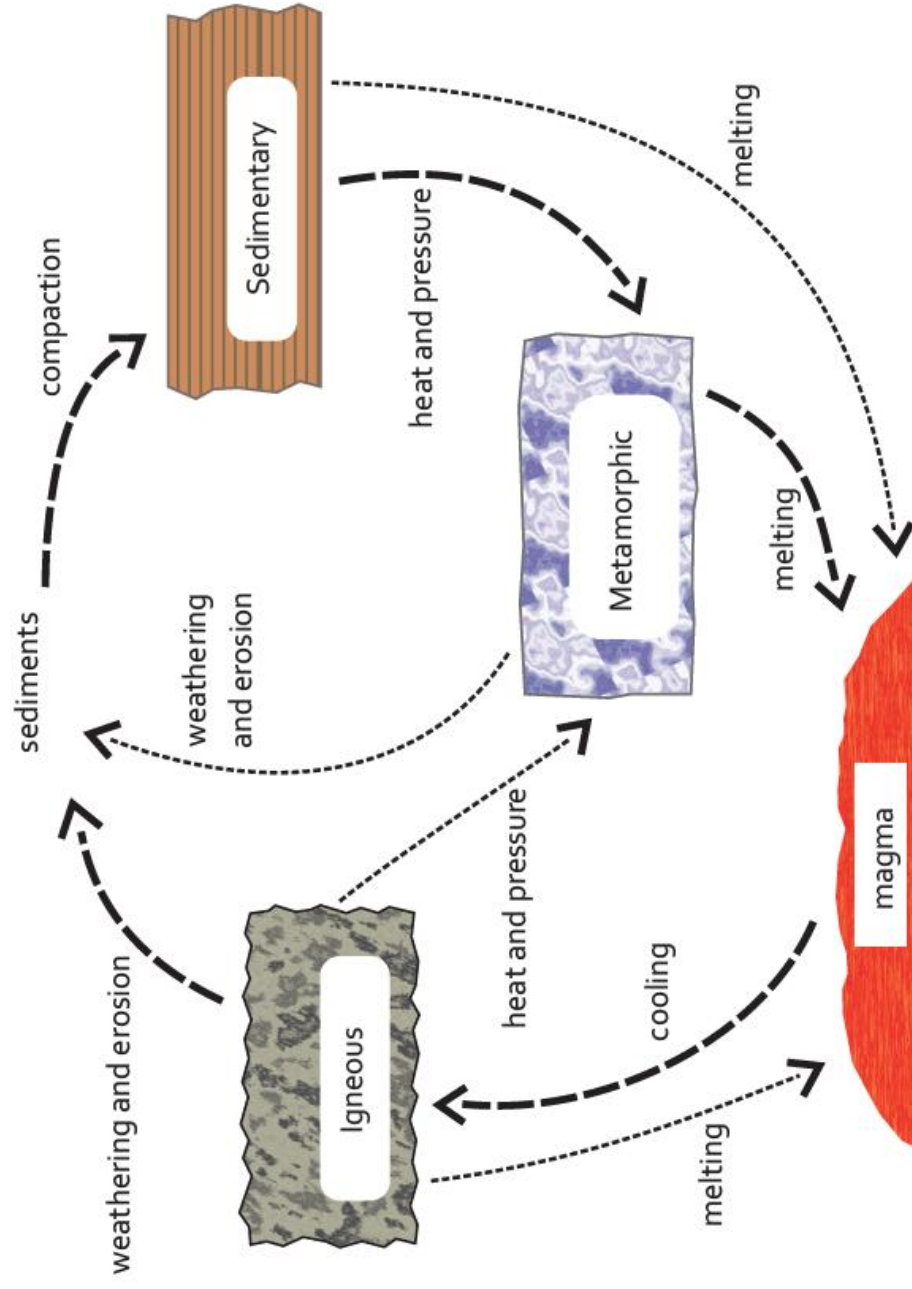
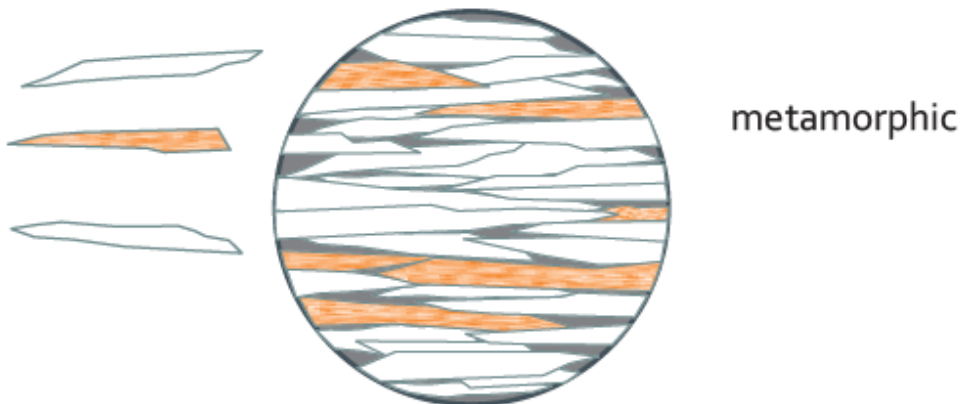
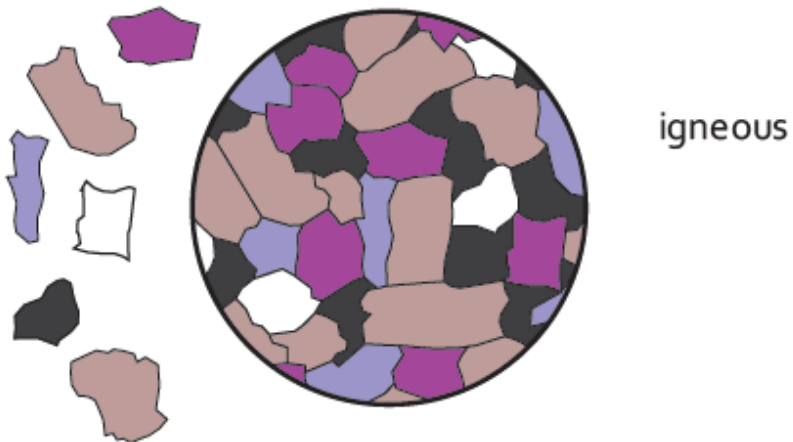
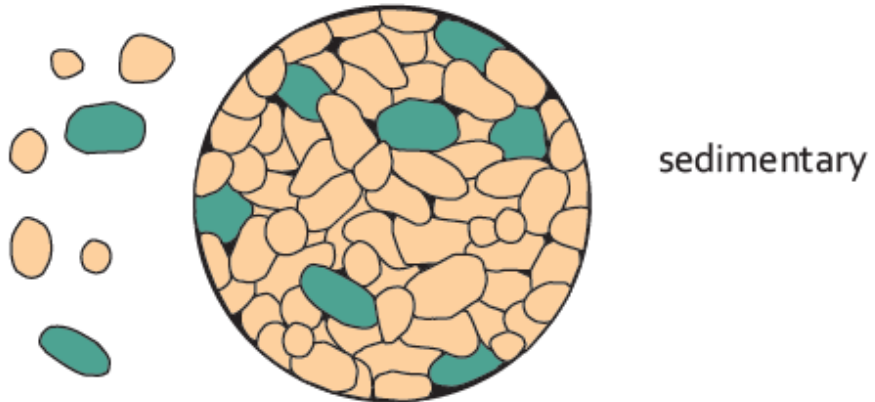


The Rock Cycle

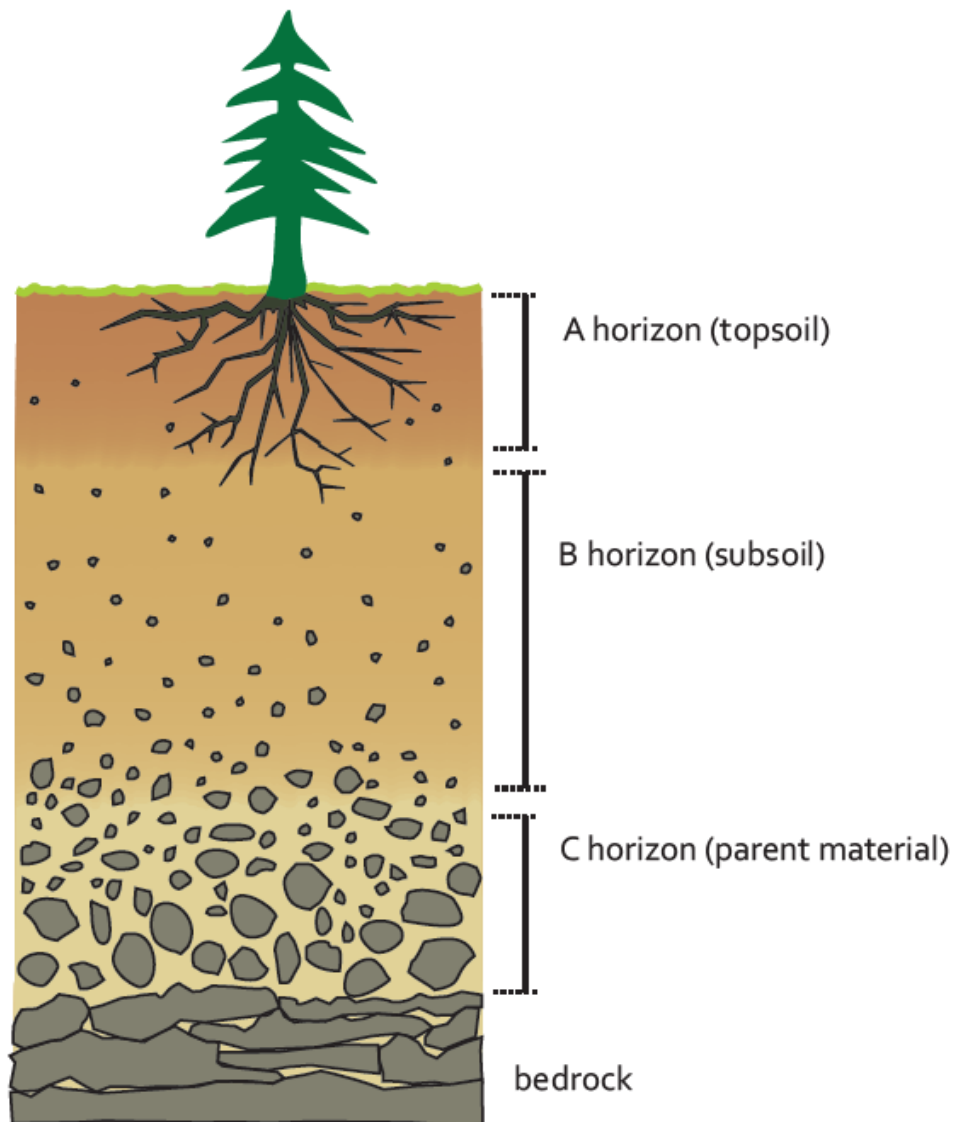


Identifying Rock Types

Magnified samples:

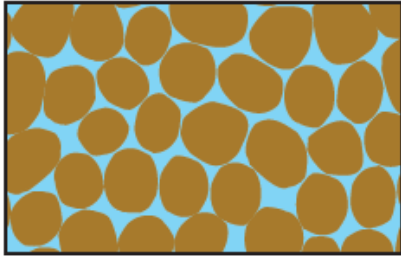


Typical Soil Profile (cutaway)

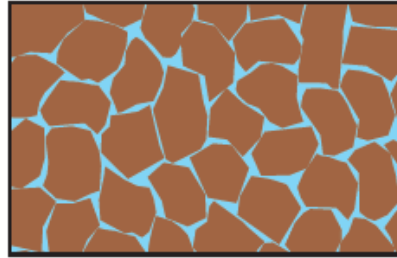


Factors Affecting Porosity in Soil

Particle shape (shown enlarged)

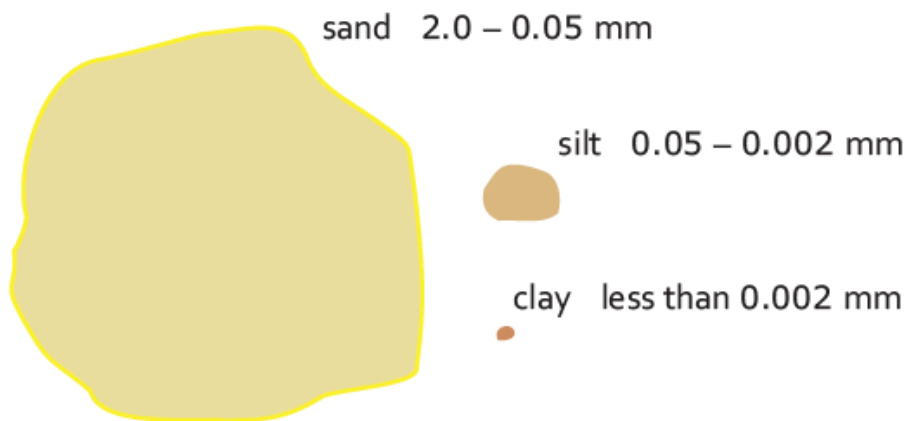


rounded

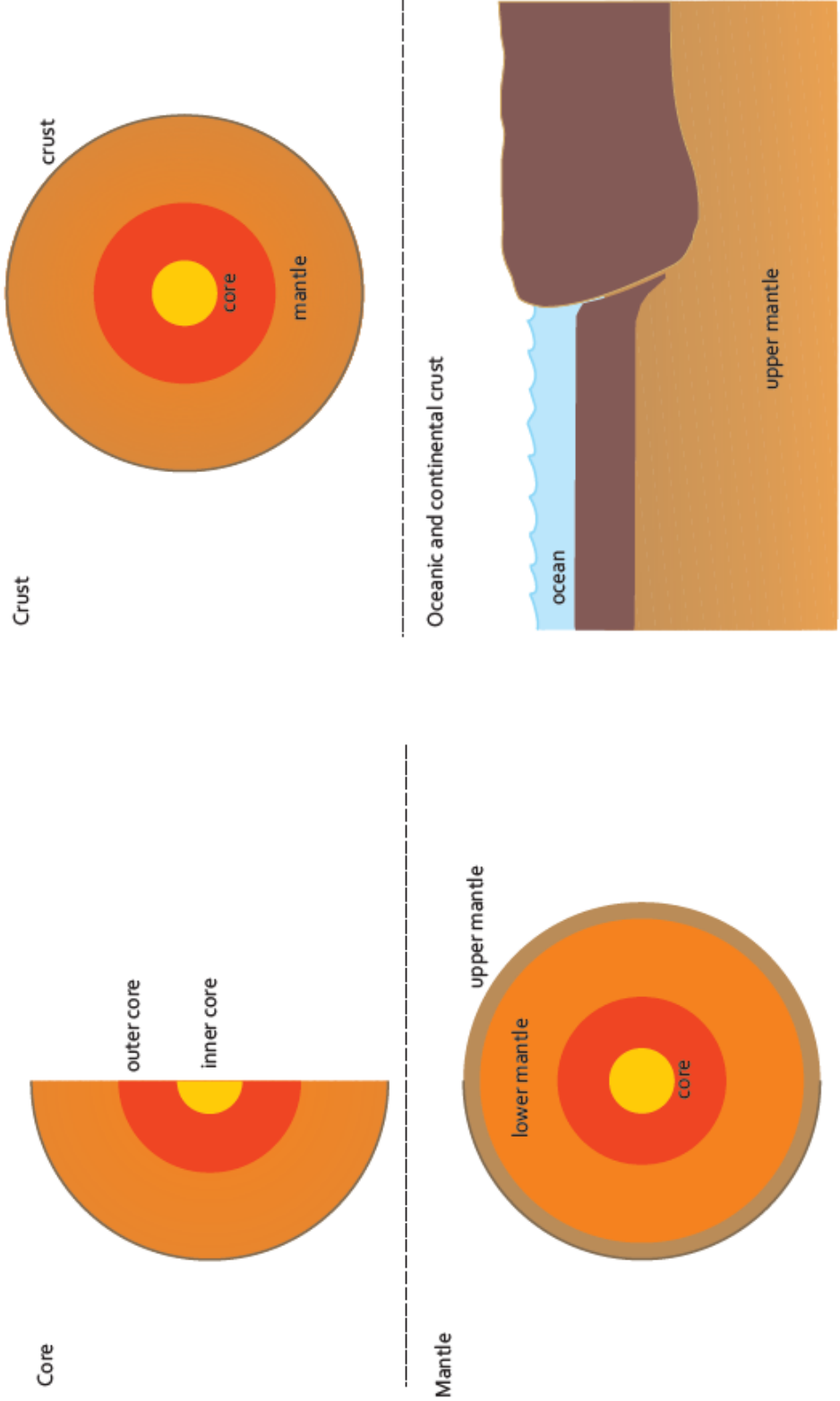


angular

Particle size (shown enlarged)

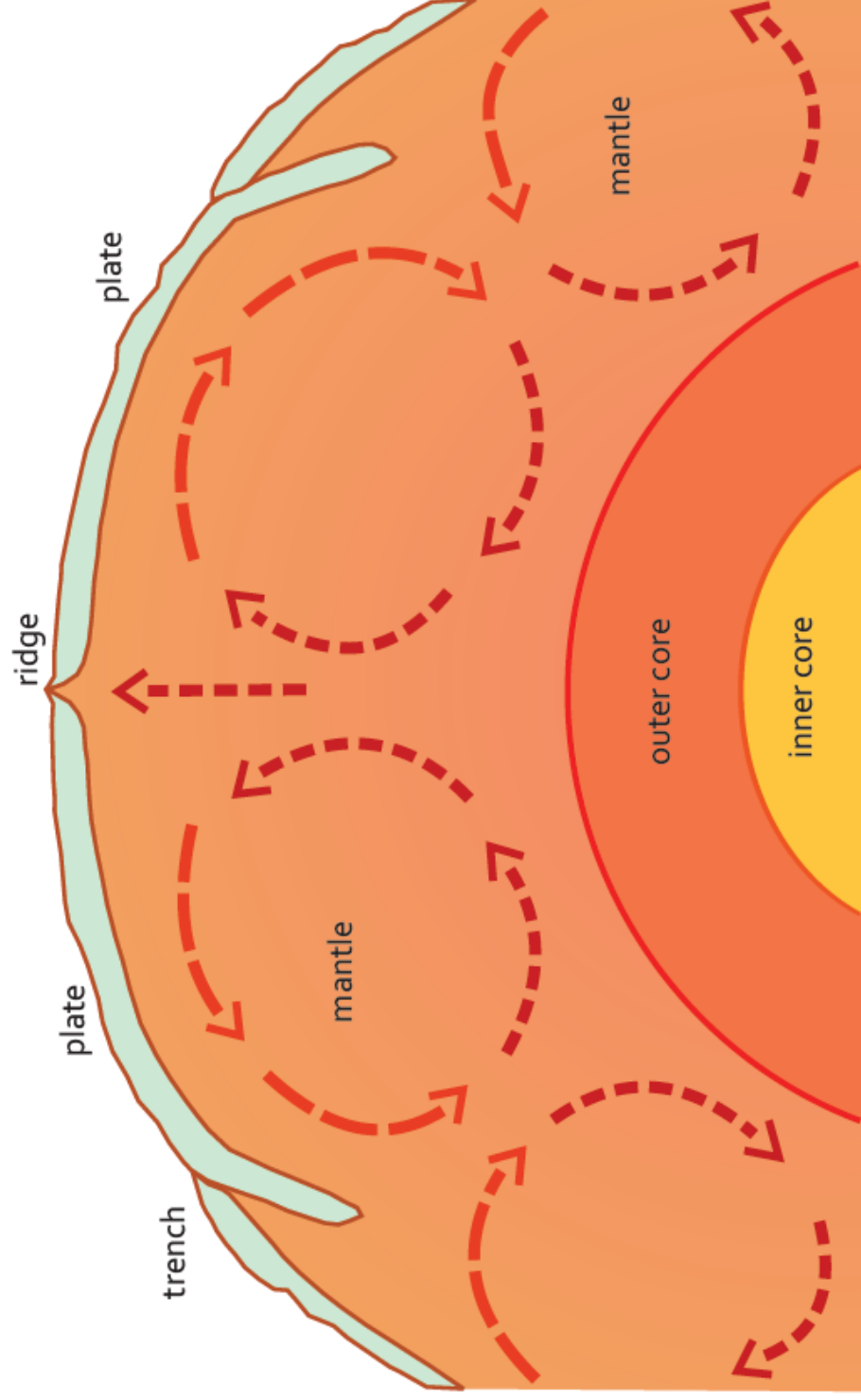


Earth's Internal Structure (cutaway views)

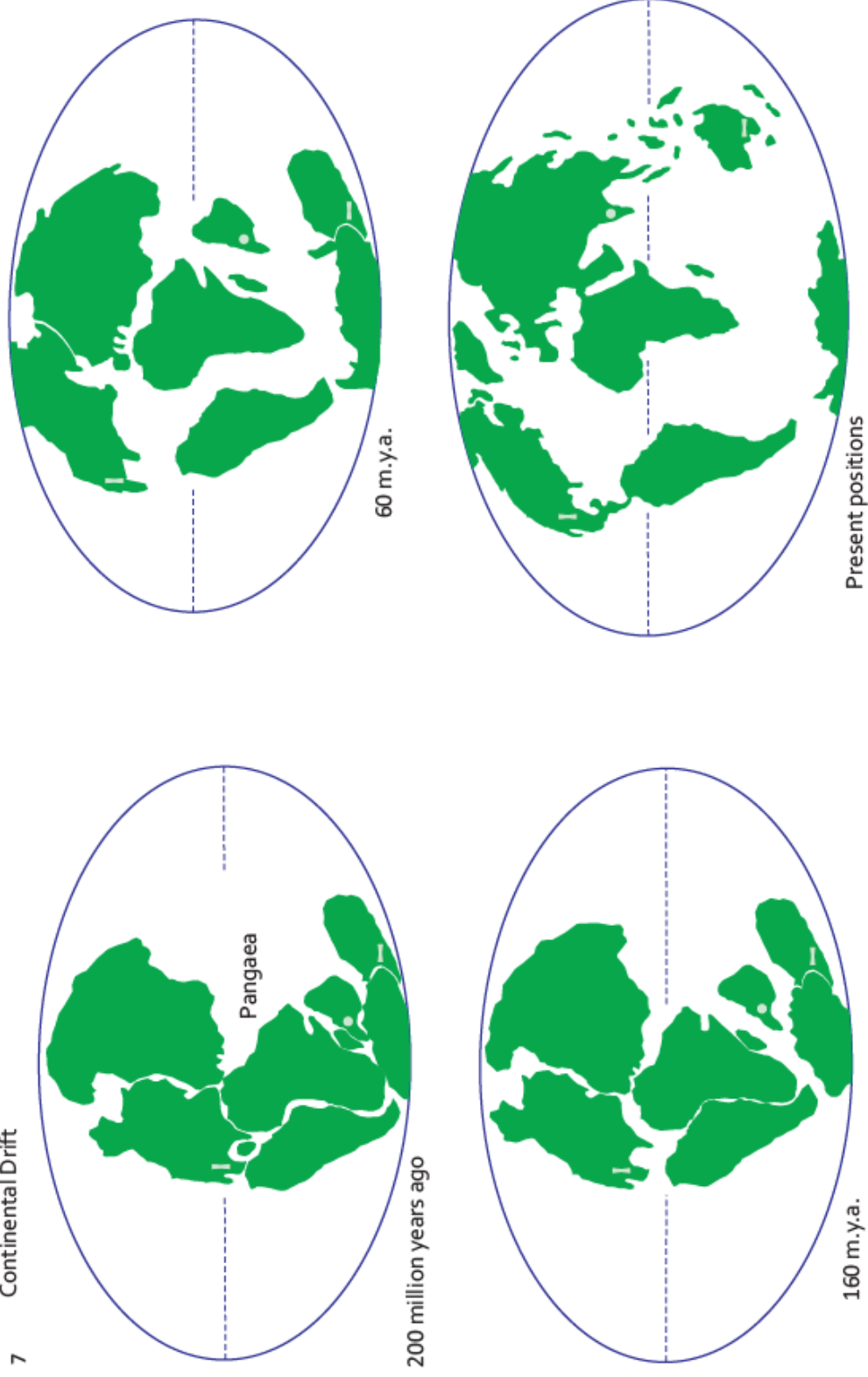


Convection Currents in Earth's Mantle

6

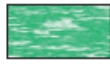


7 Continental Drift



 fossils of Triassic land reptile Cynognathus

 fossils of Triassic land reptile Lystrosaurus

 fossils of tree Glossopteris

 fossils of aquatic reptile Mesosaurus

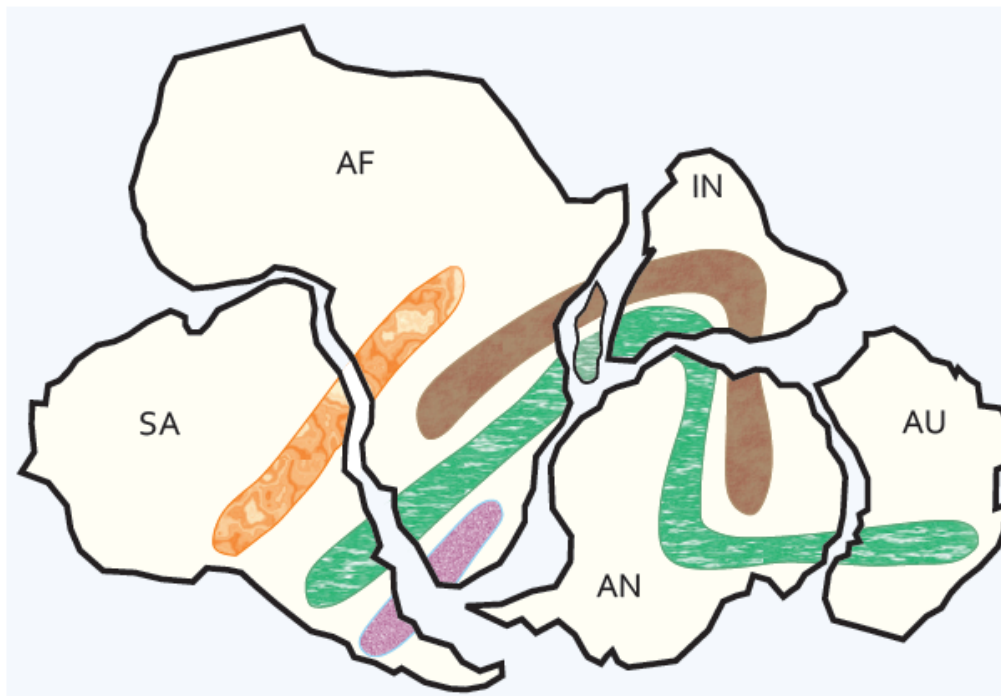
AF Africa

IN India

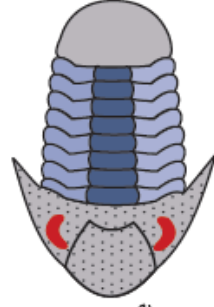
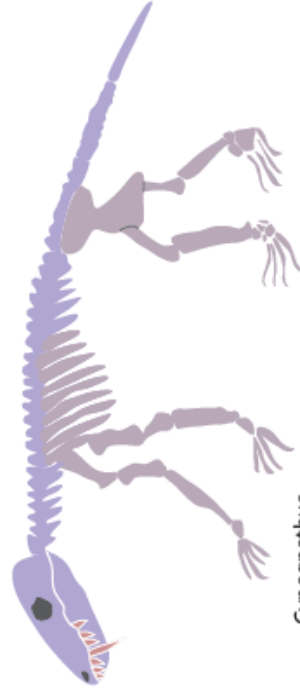
AN Antarctica

SA South America

AU Australia



Fossils



Radioactive Decay

Key:



daughter material



parent material



parent
material



1 half-life



2 half-lives



3 half-lives



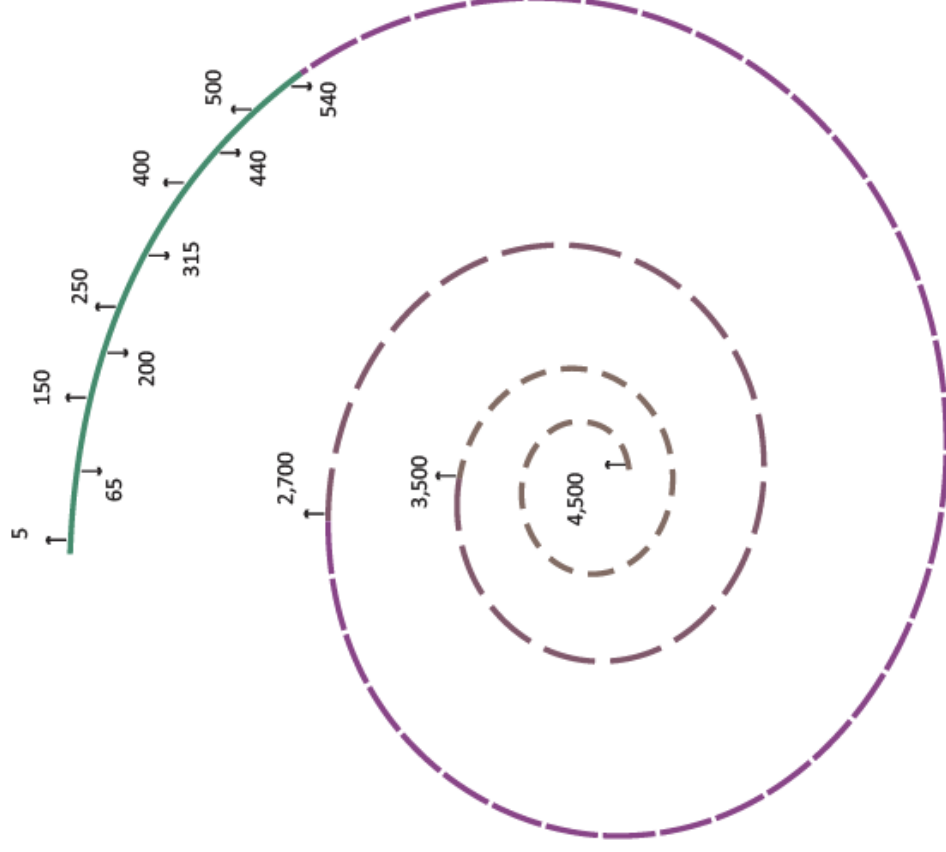
4 half-lives

Geologic Time Scale

Key:

Note: Numbers represent millions of years ago (MYA).

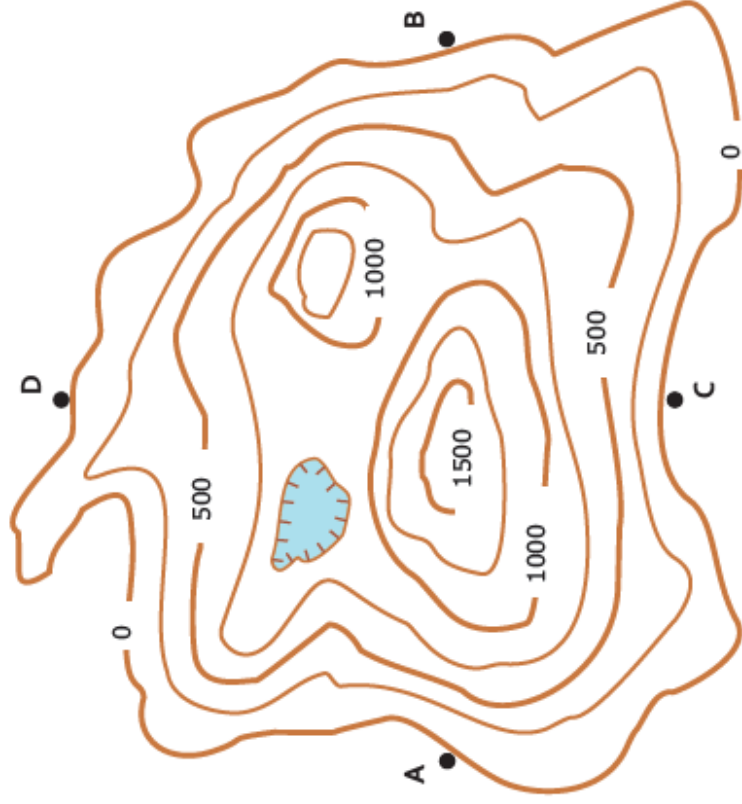
—	Precambrian Eon
—	Phanerozoic Eon
4,500	Origin of Earth
3,500	Origin of life
2,700	Atmospheric oxygen
540	Trilobites and invertebrates
500	Fish
440	Land plants
400	Amphibians
315	Reptiles
250	Mass extinction event
200	Mammals; giant dinosaurs; birds
150	Flowering plants
65	Extinction of dinosaurs
5	First hominins



Island (landform map)



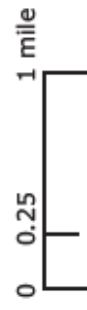
Island (topographical map)



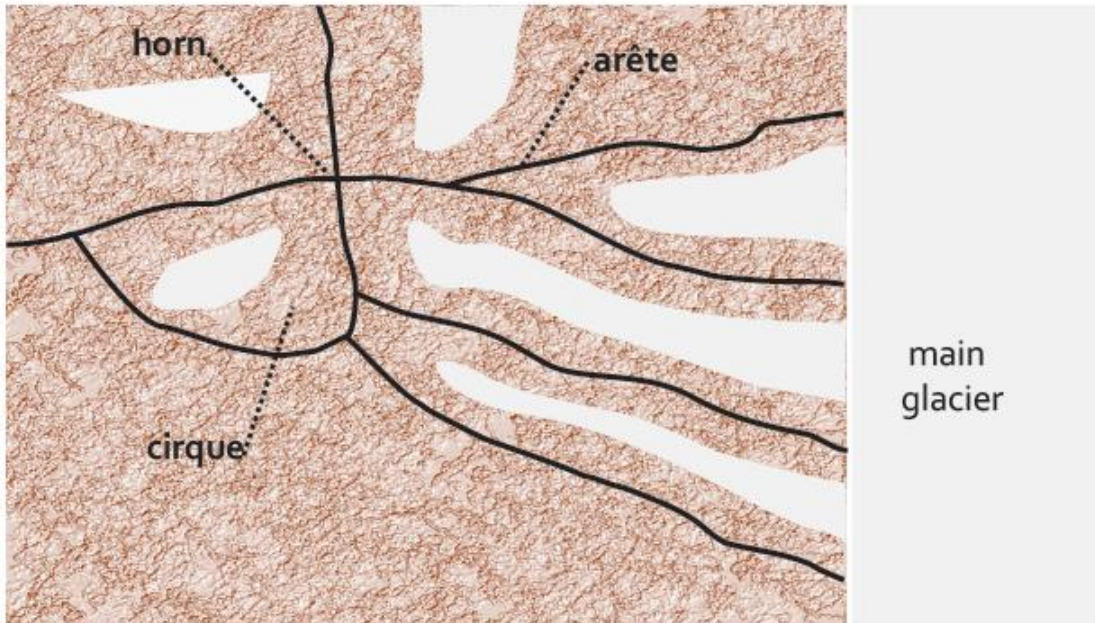
Profile from A to B



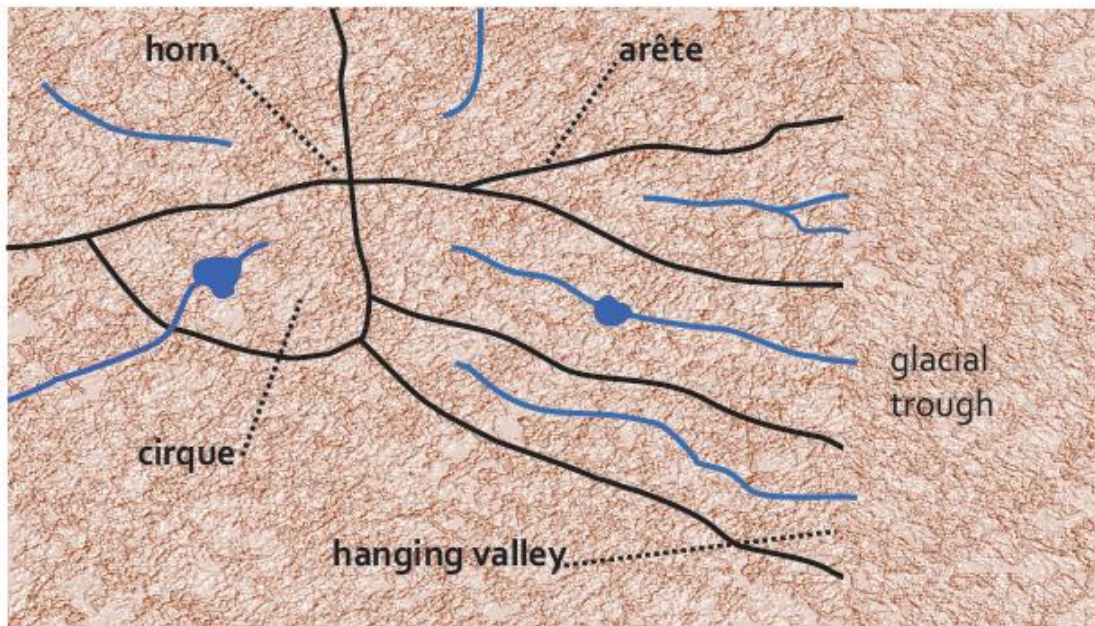
Profile from C to D



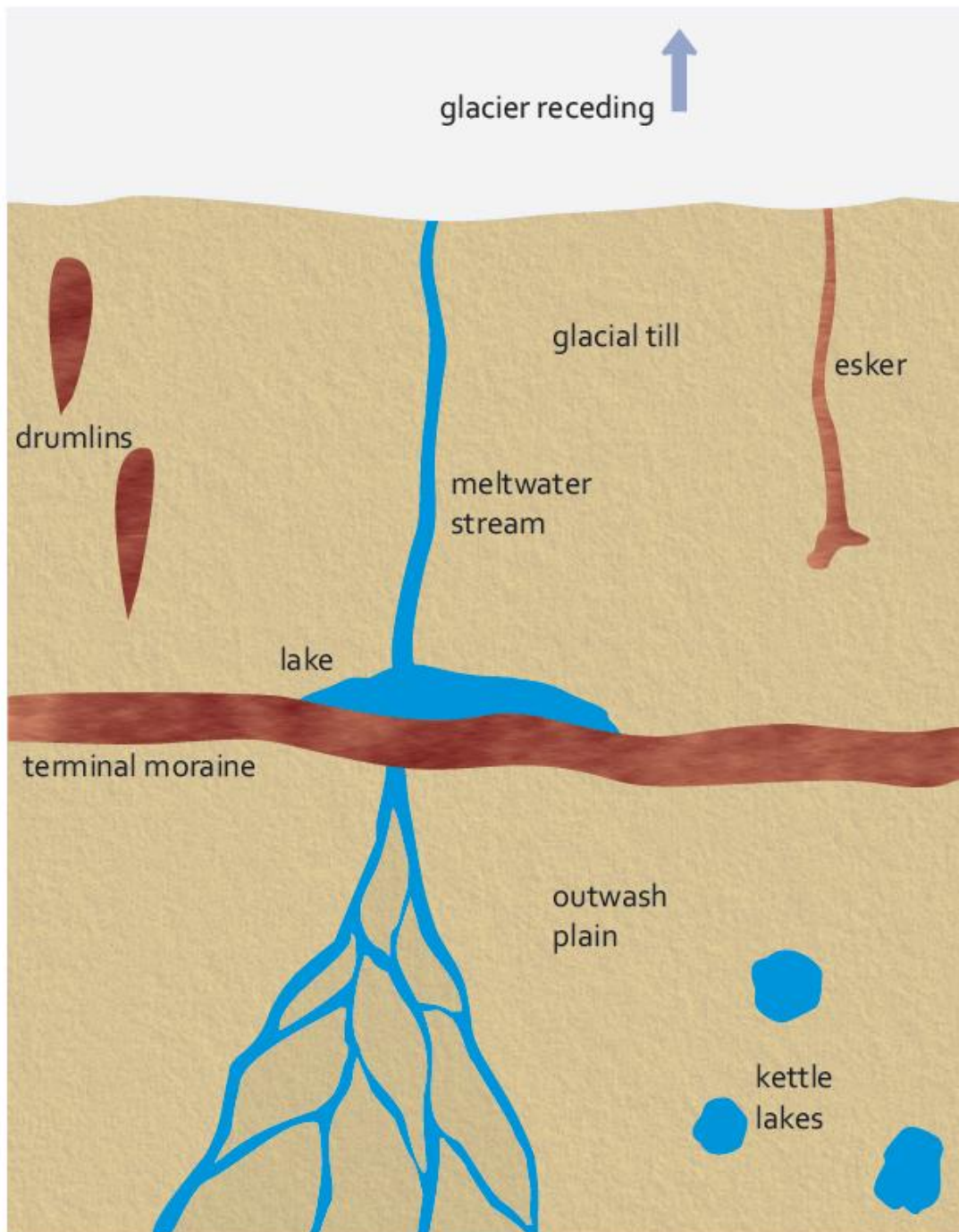
Area with glaciers present

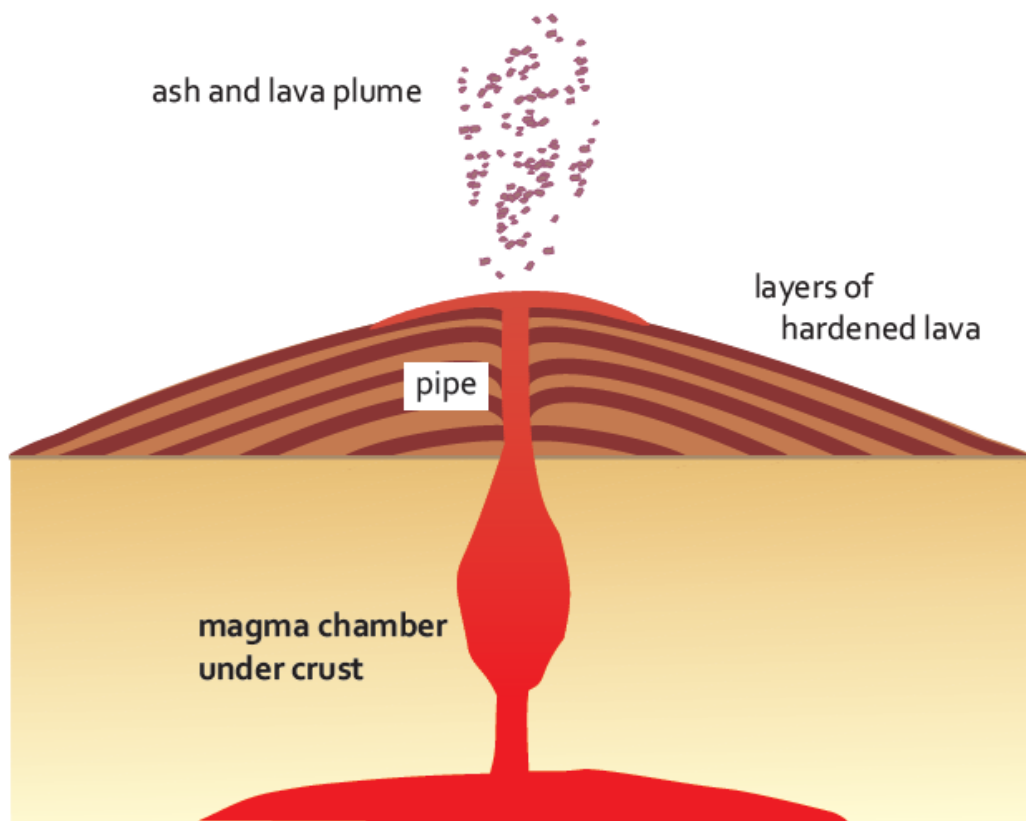


Area after glaciers have moved

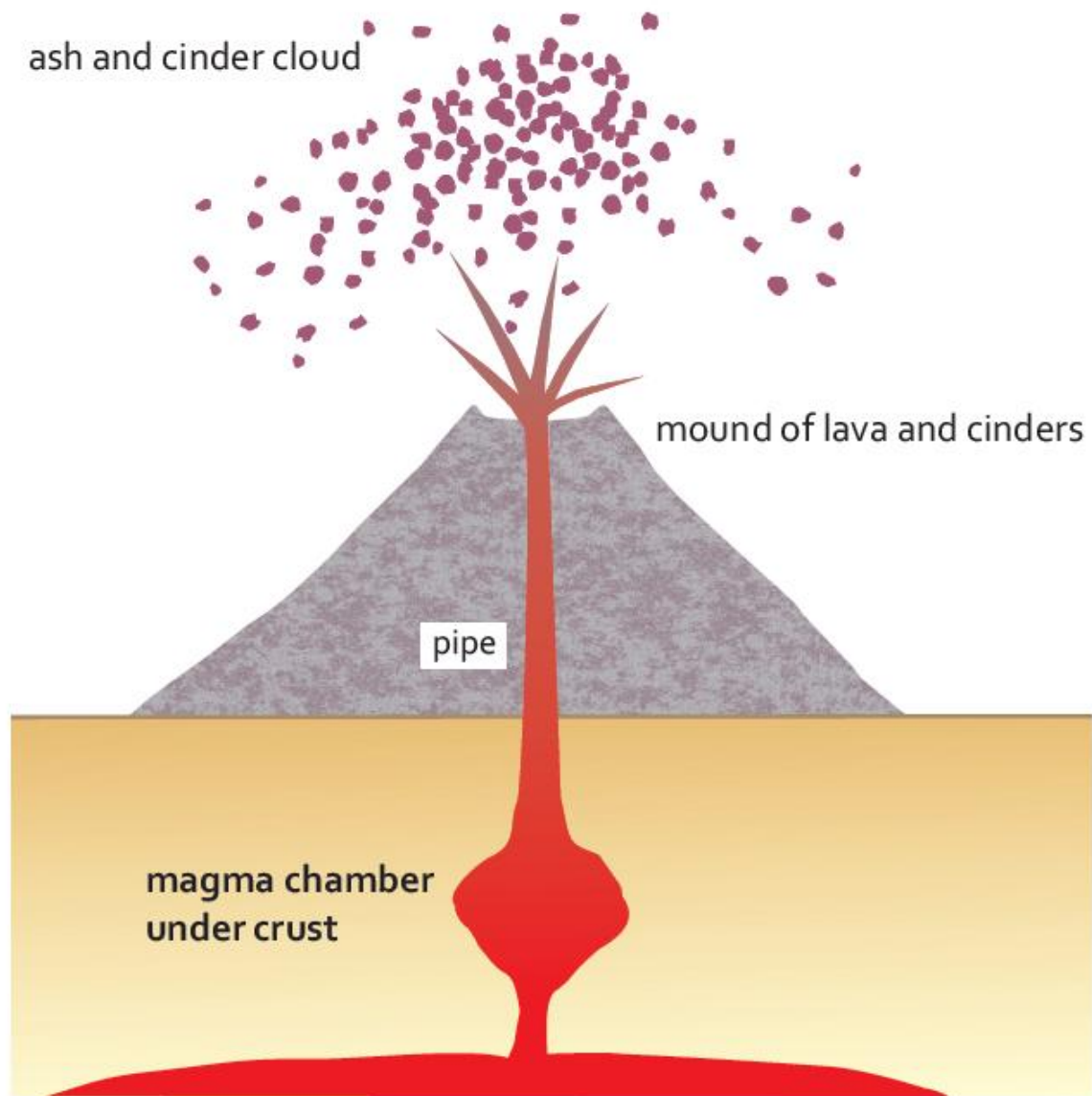


Effects of Continental Glaciers

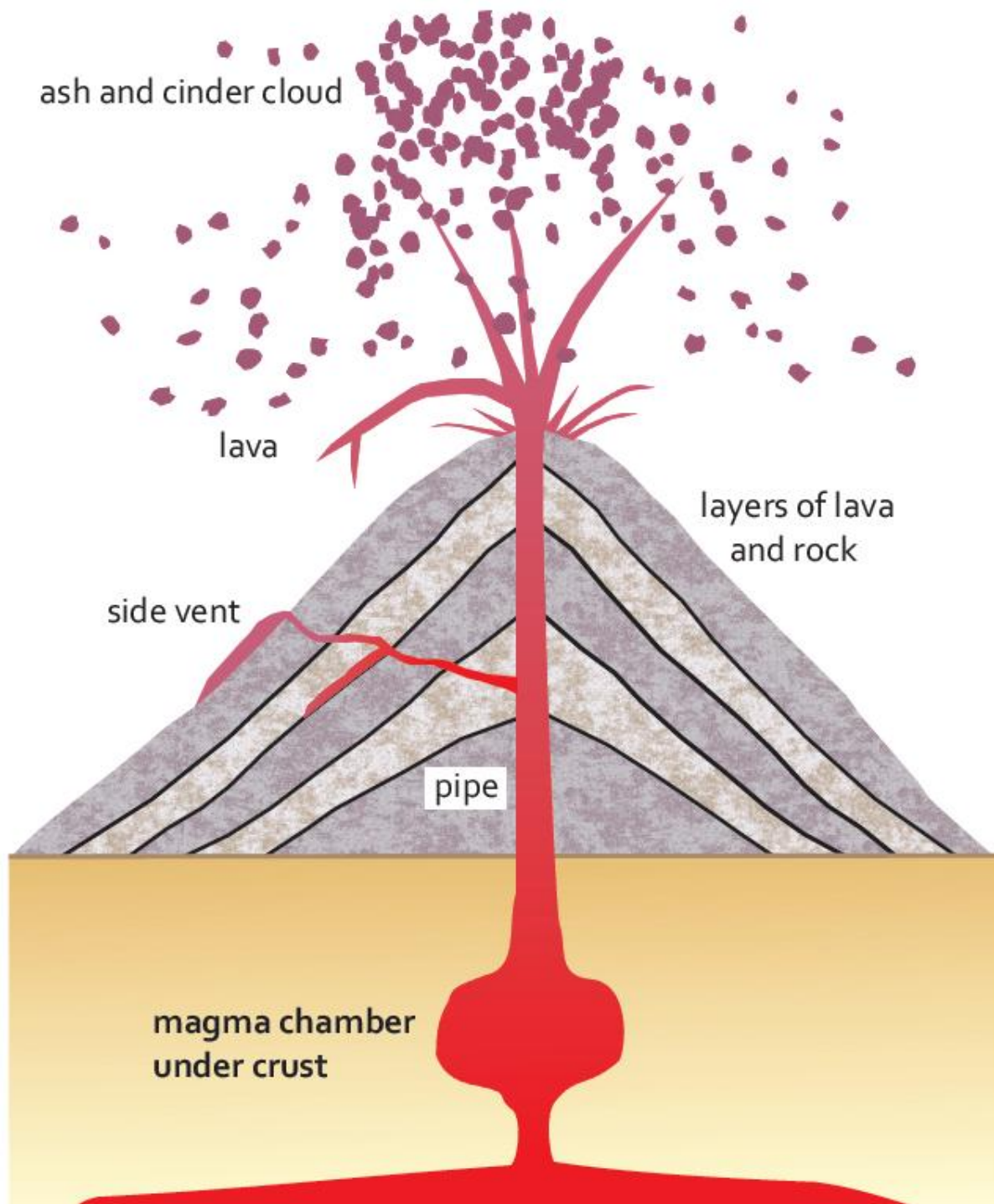




Cinder Cone Volcano (cutaway)

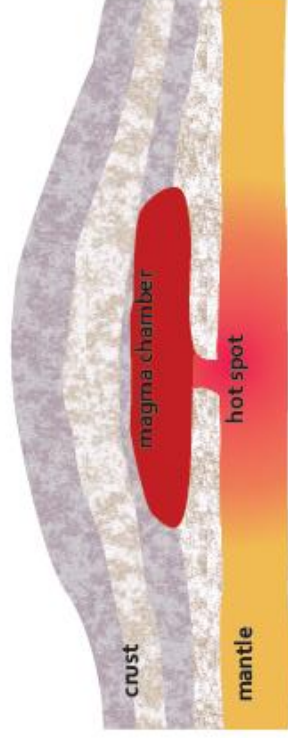


Composite Volcano (cutaway)

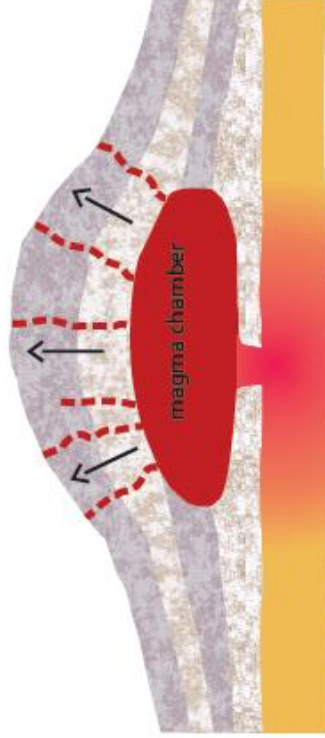


Formation of a Caldera (cutaway)

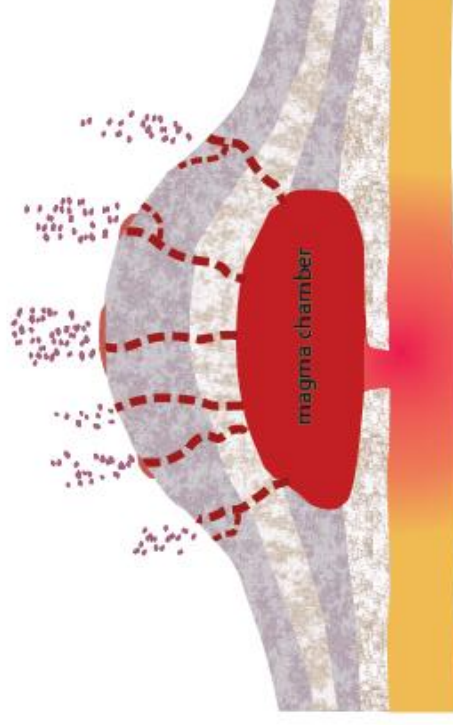
1 Magma chamber forms over hot spot



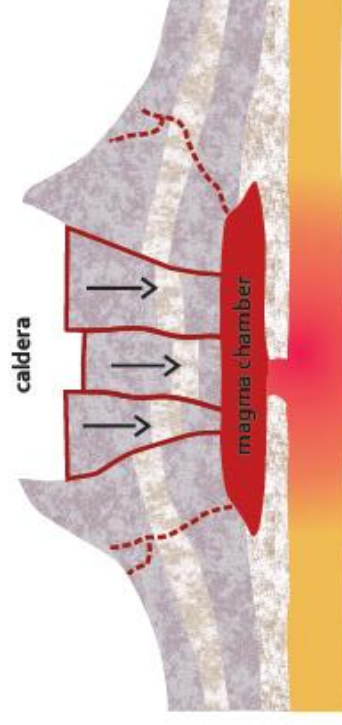
2 Chamber grows, pushes upward, and creates fissures



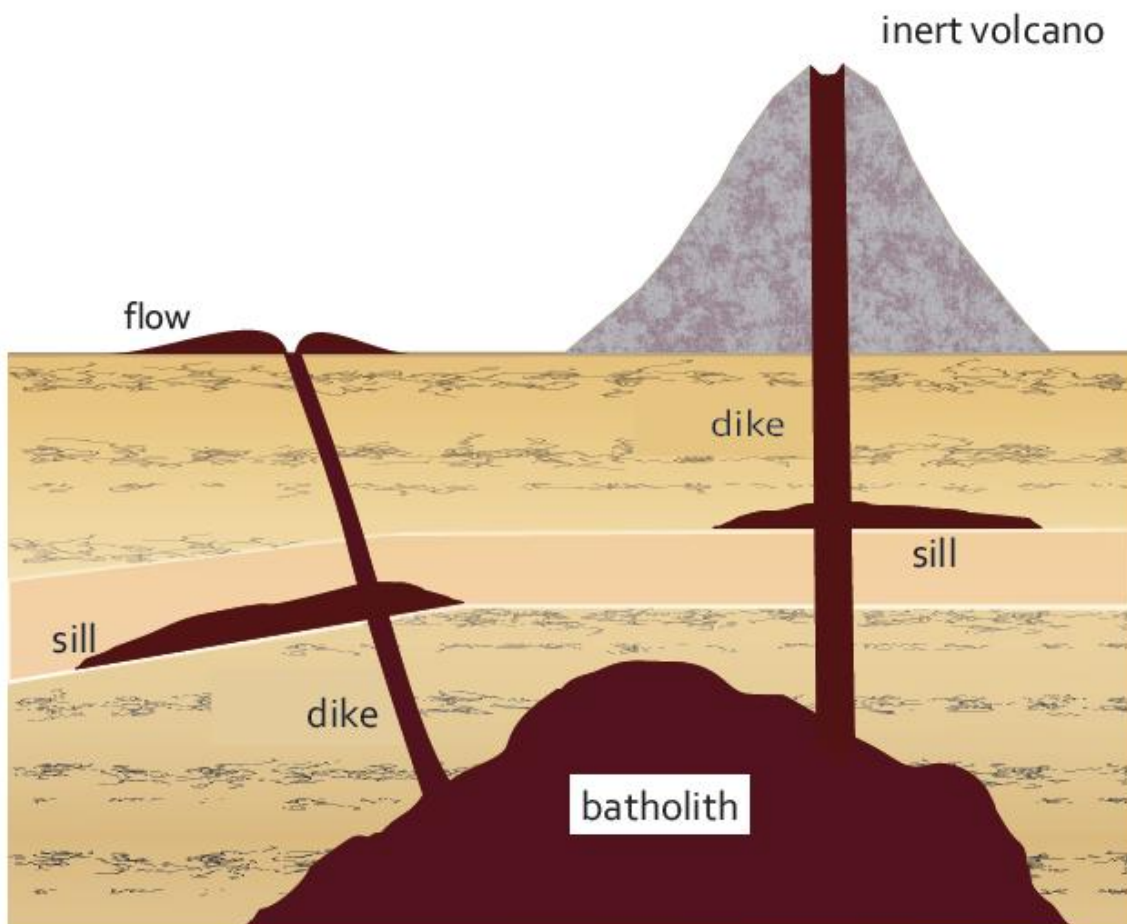
3 Pressure forces magma up through fissures



4 Ground collapses into emptied magma chamber, forming caldera above

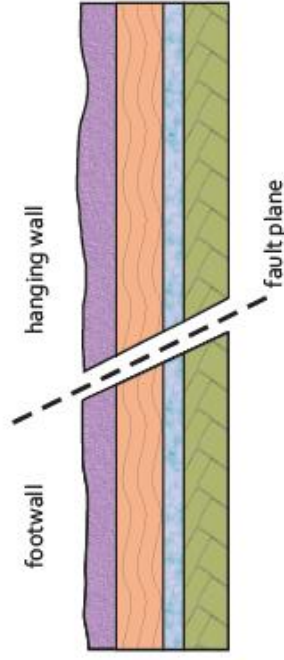


Batholith, Dikes, and Sills (cutaway)

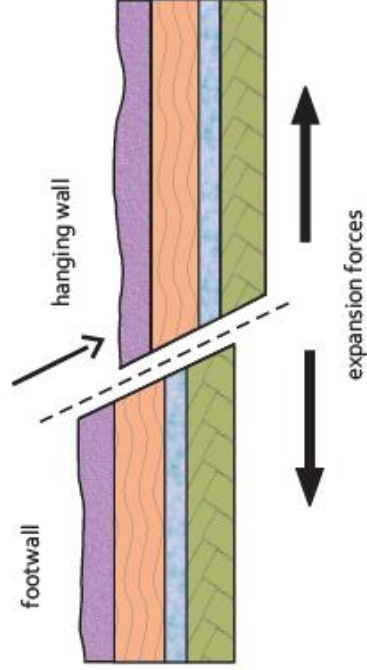


Fault Types

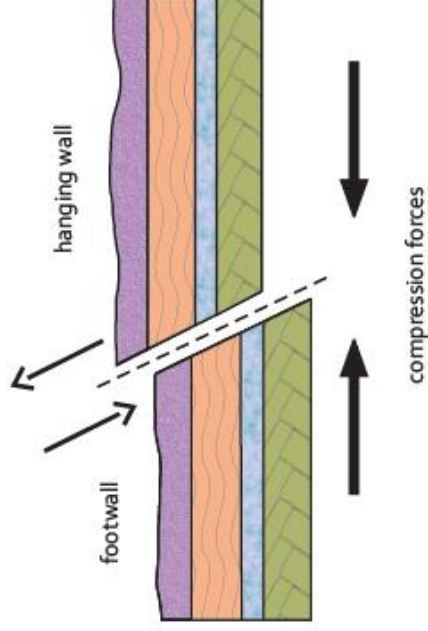
Cross-section of Earth's Crust



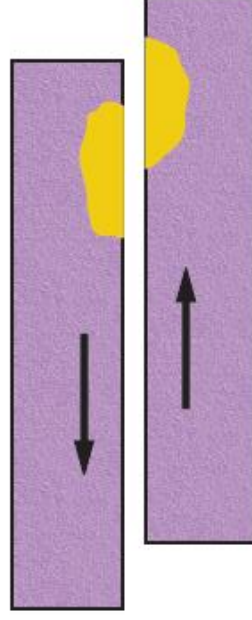
Normal fault



Reverse fault



Strike-slip fault (overhead view)

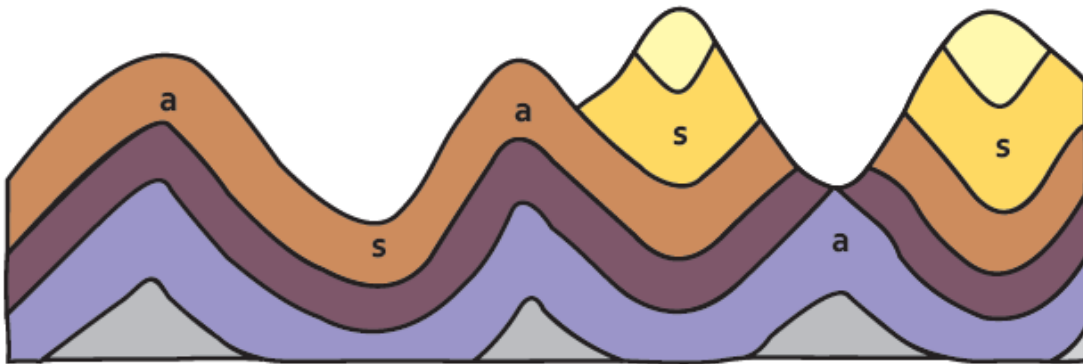


Folded Layers

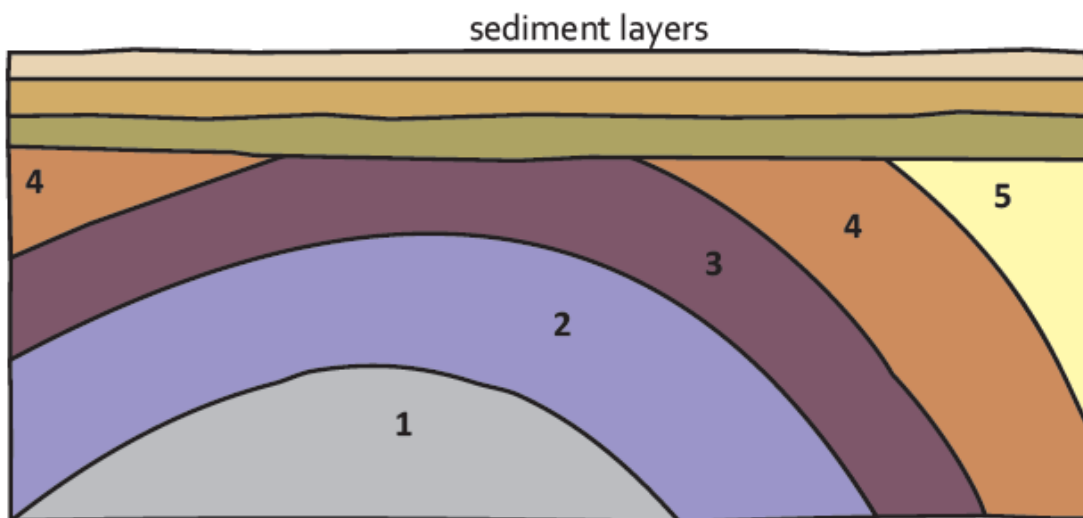
Key:

a anticlinal folds

s synclinal folds

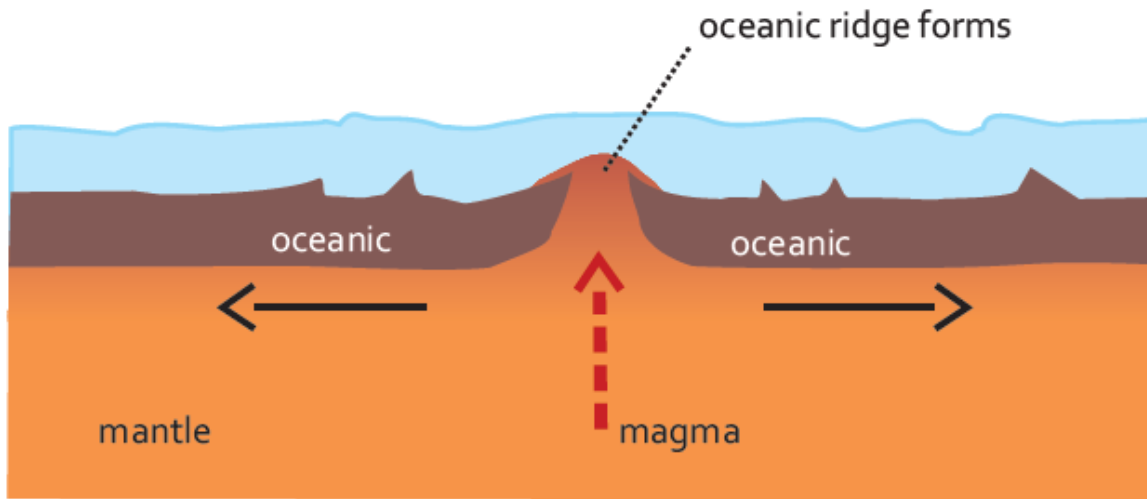


Angular Unconformity

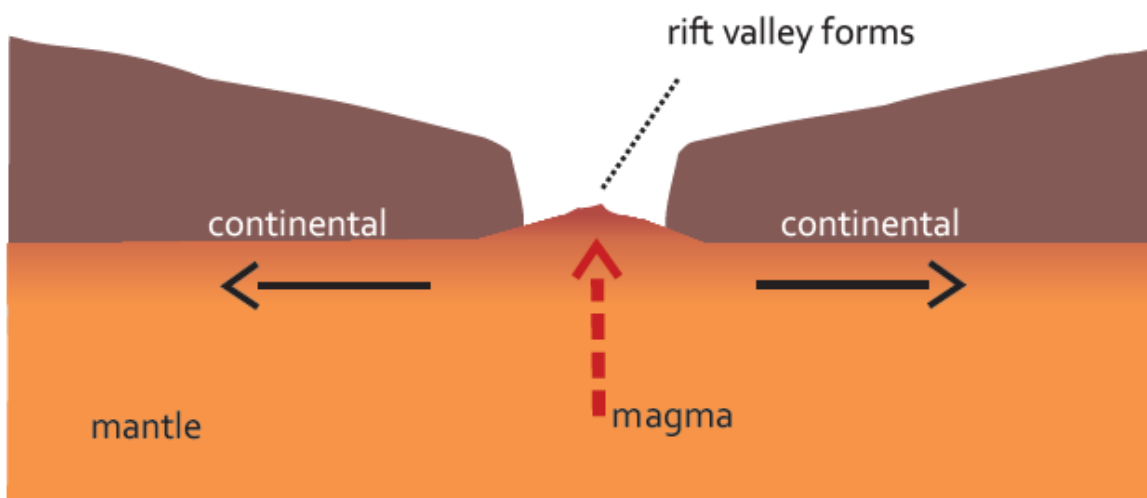


Divergent Plate Boundaries (cutaway views)

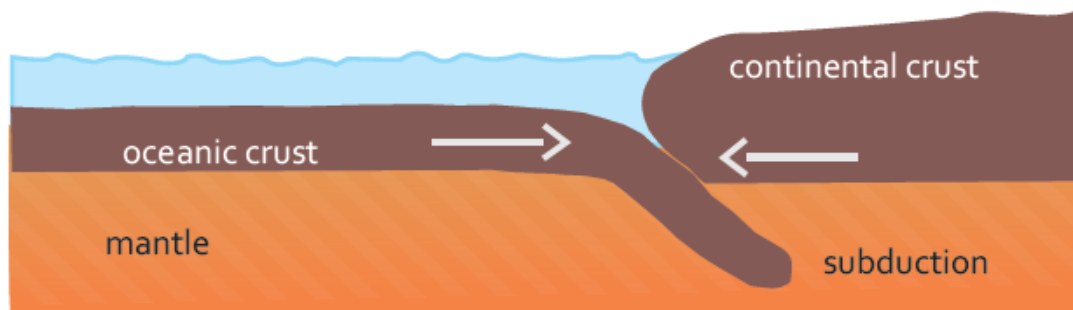
Diverging oceanic crust



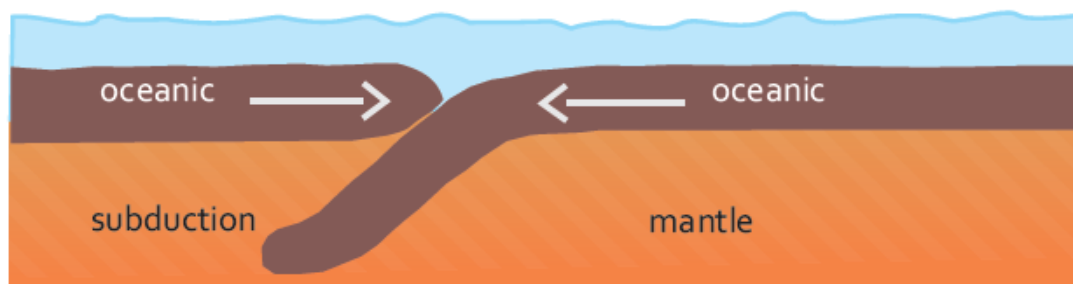
Diverging continental crust



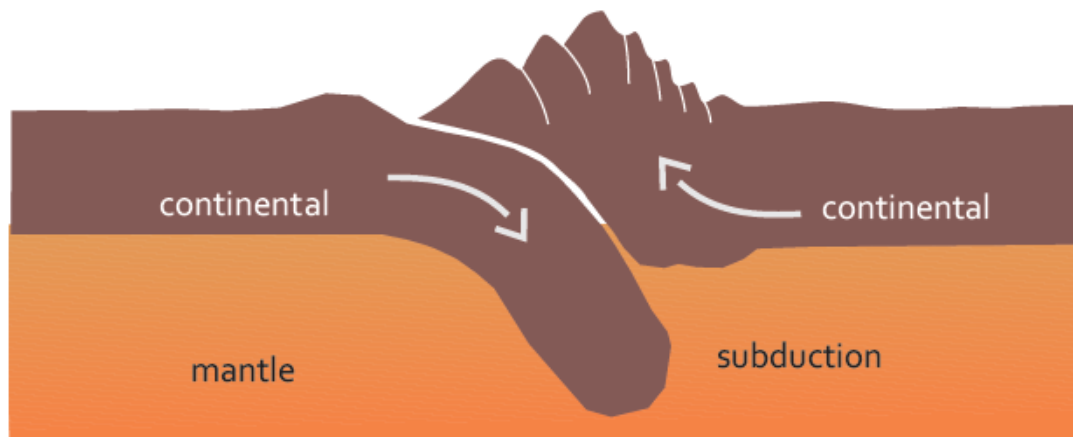
Oceanic-continental convergence

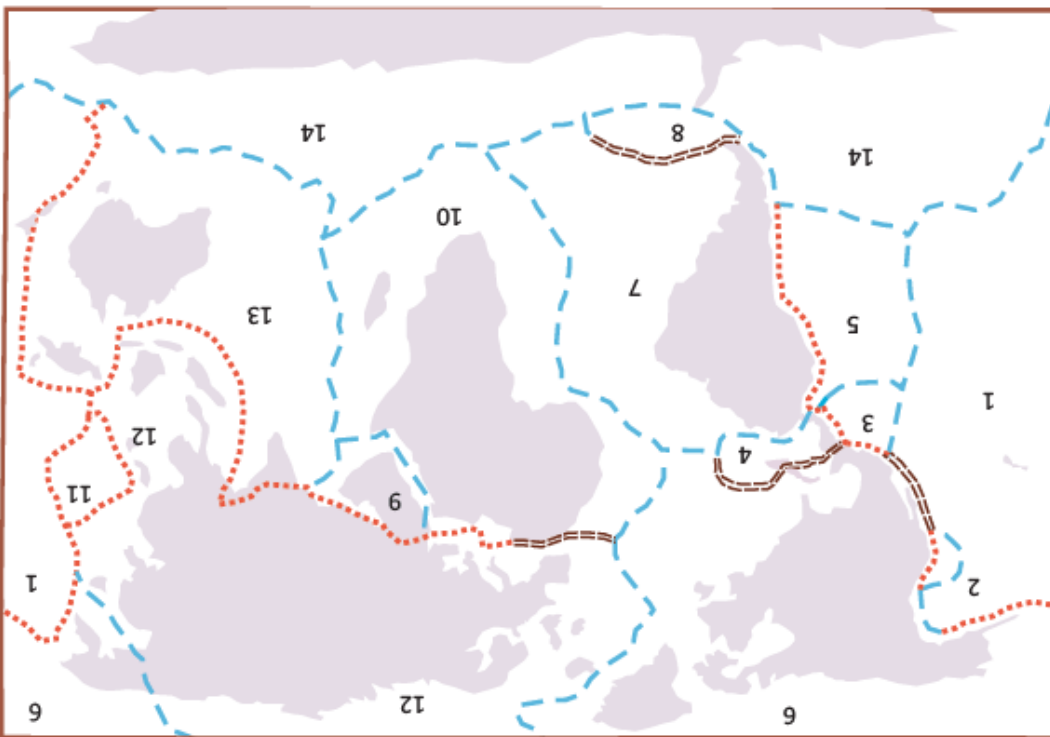


Oceanic-oceanic convergence



Continental-continental convergence





Tectonic Plate Boundaries

 Convergent boundary
 Divergent boundary
 Transform boundary

- | | |
|----|-------------------------------|
| 1 | Pacific Plate |
| 2 | Juan de Fuca Plate |
| 3 | Cocos Plate |
| 4 | Caribbean Plate |
| 5 | Nazca Plate |
| 6 | North American Plate |
| 7 | South American Plate |
| 8 | Scotia Plate |
| 9 | Arabian Plate |
| 10 | African Plate |
| 11 | Philippine Plate |
| 12 | Eurasian Plate |
| 13 | Indo-Australian Plate |
| 14 | Antarctic Plate |
| | N.A. North American continent |
| | S.A. South American continent |

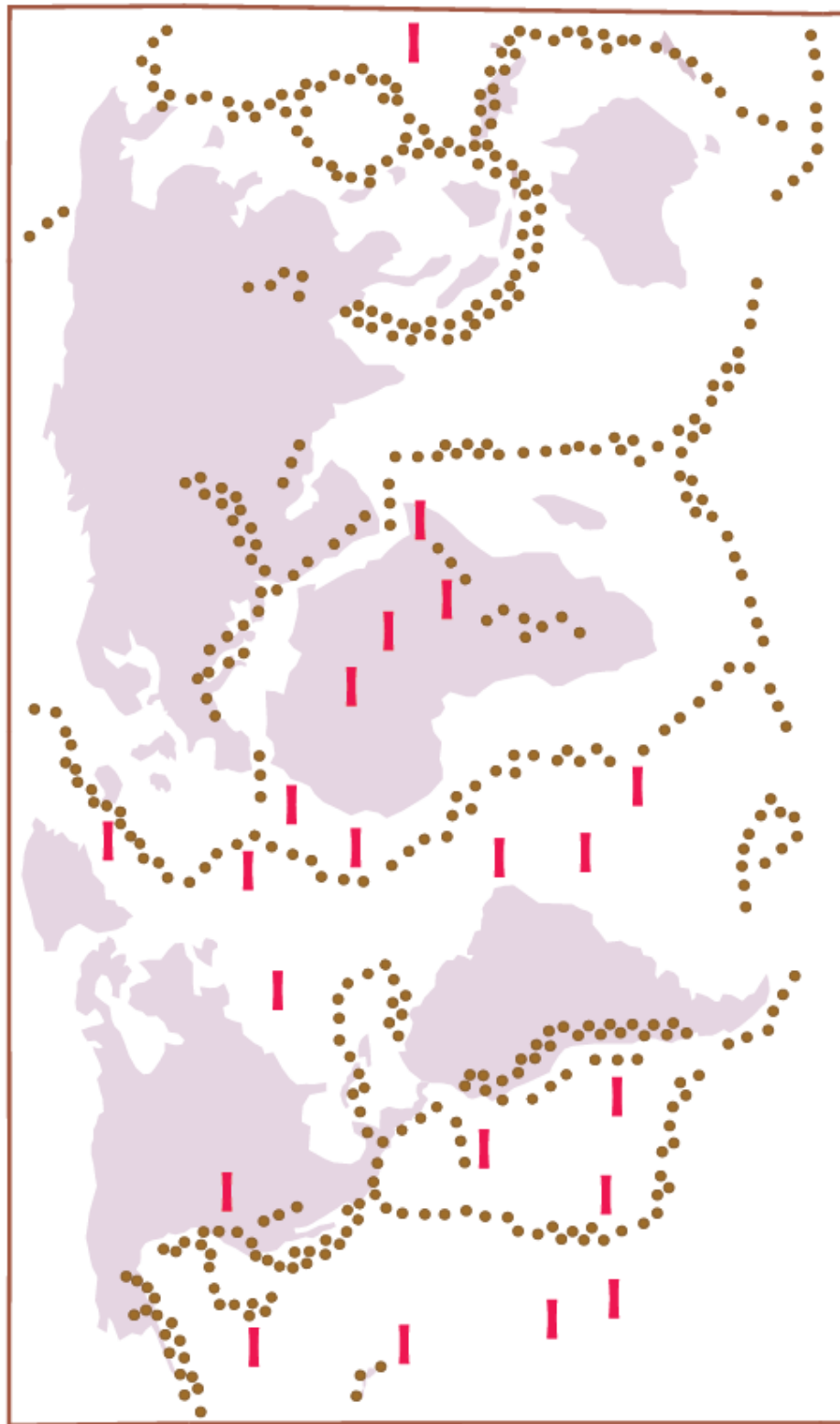
Tectonic Plate Boundaries (key)

Volcanoes, Earthquakes, Hot Spots

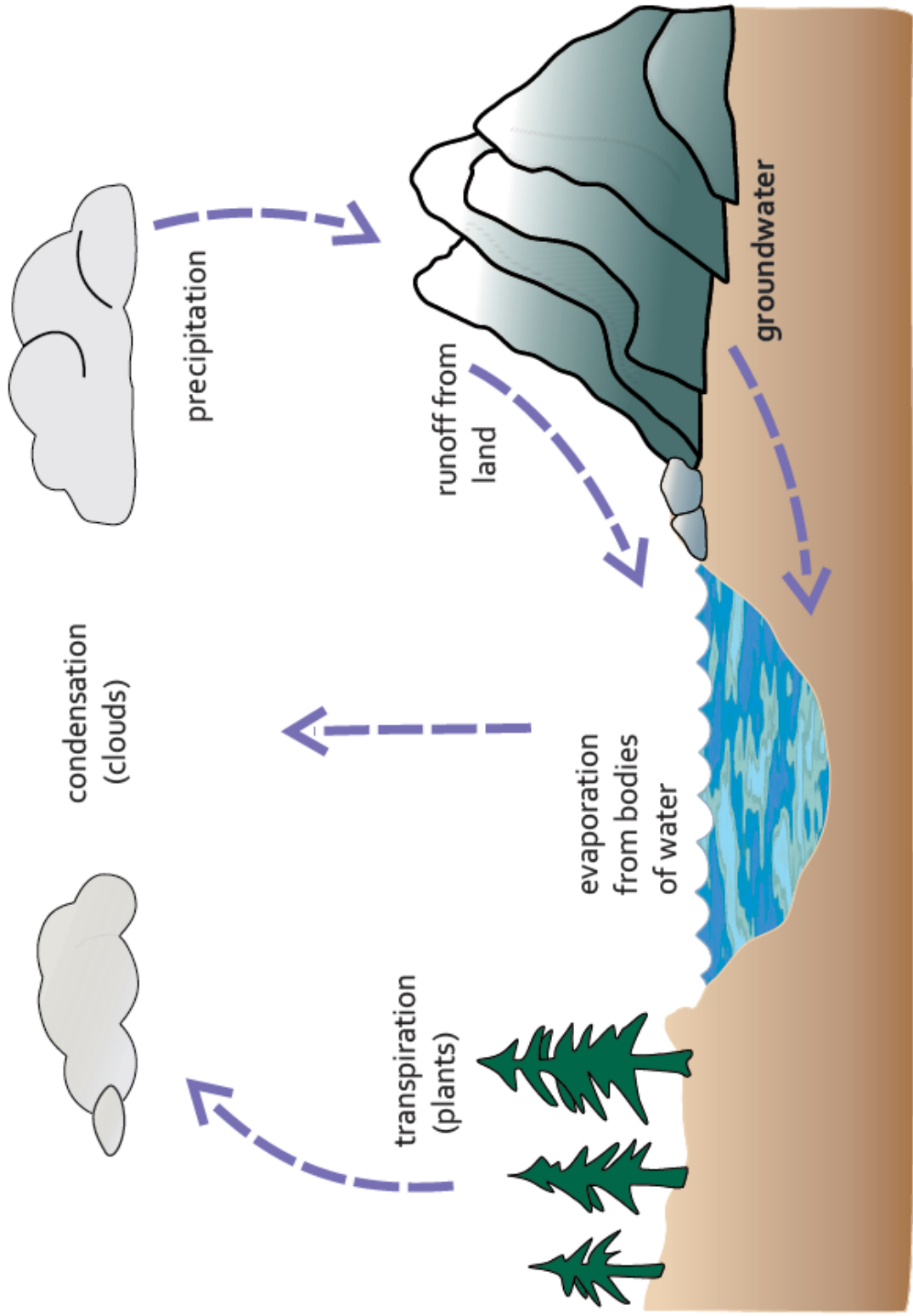
Key:

— hot spot in Earth's mantle

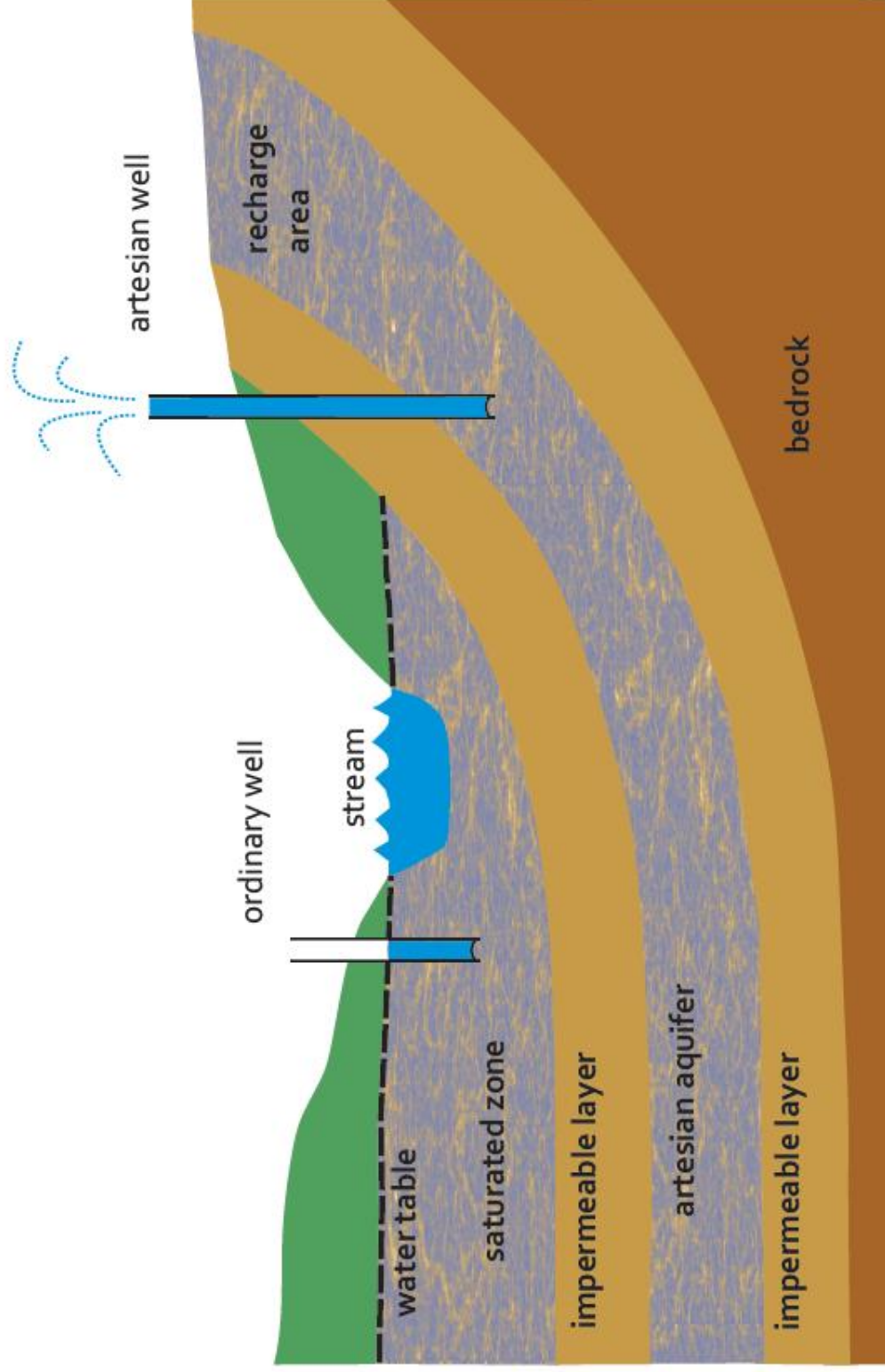
••• active volcano and/or earthquake zone



Water Cycle



Groundwater Features (cutaway)



Reducing Soil Erosion in Farming

Terracing



profile



overhead view

Windbreaks



trees in profile



overhead view

Contour Planting

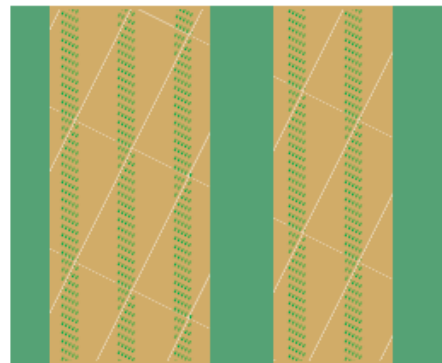


profile



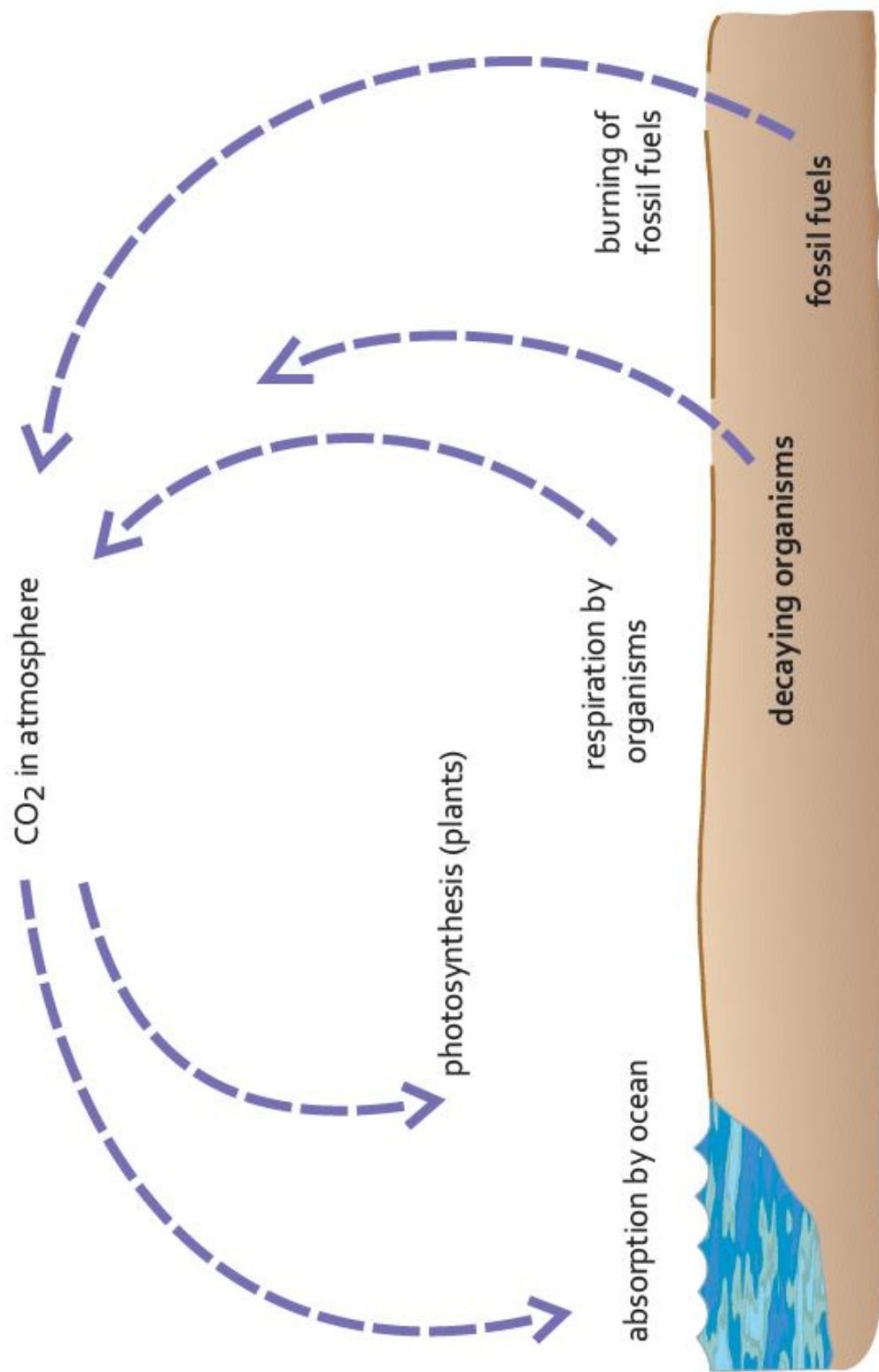
overhead view

Strip Cropping

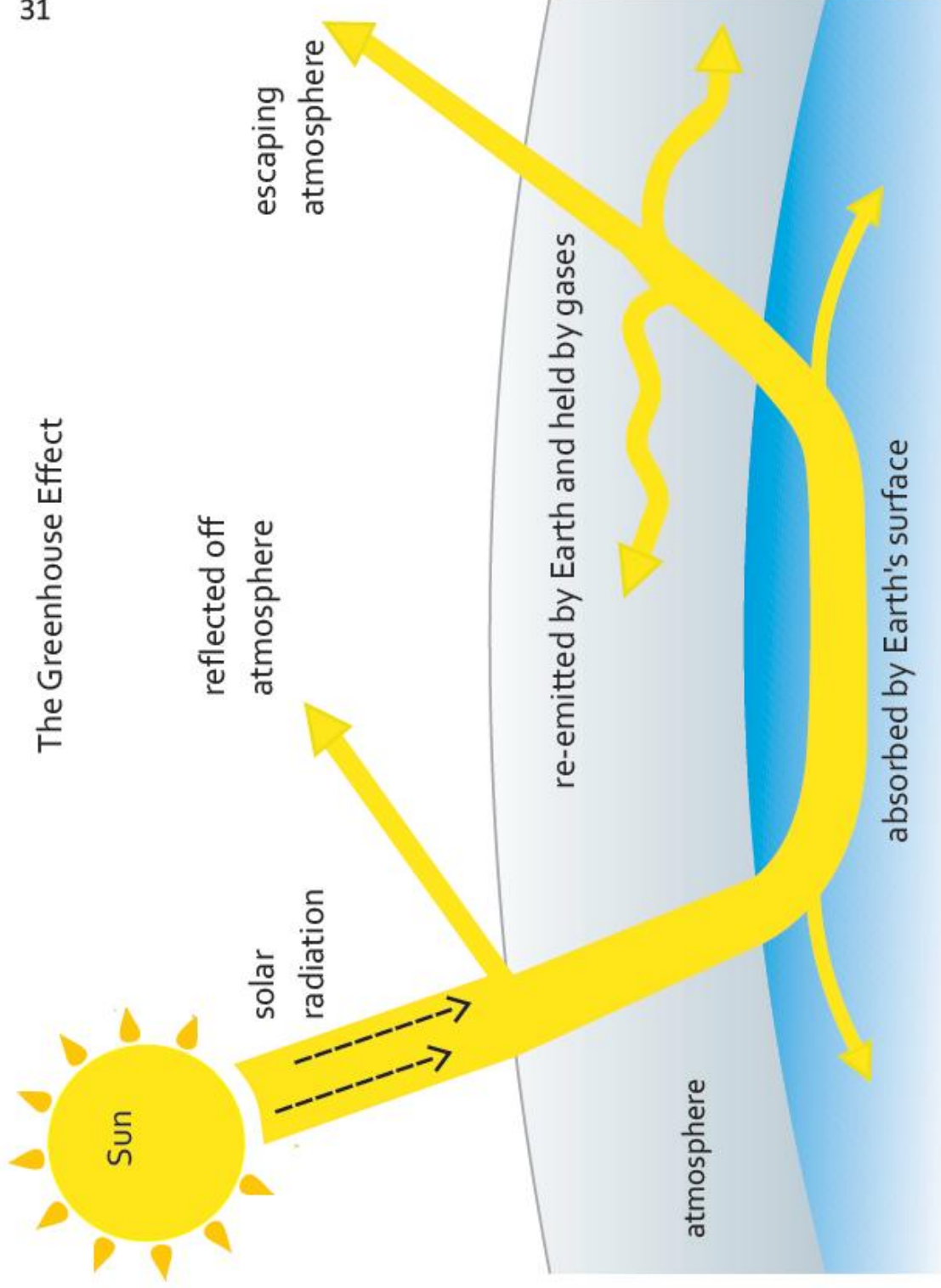


overhead view

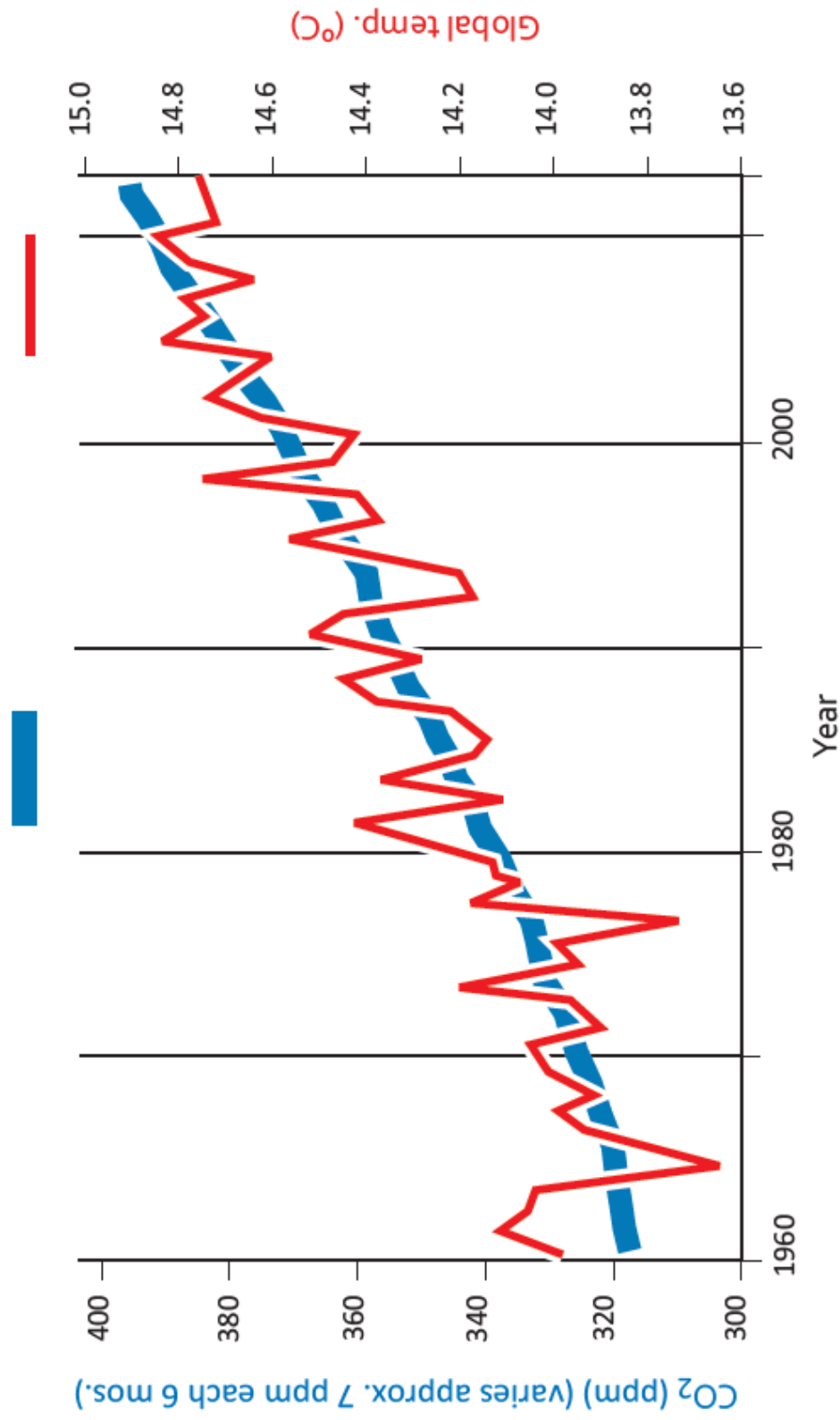
Carbon Cycle



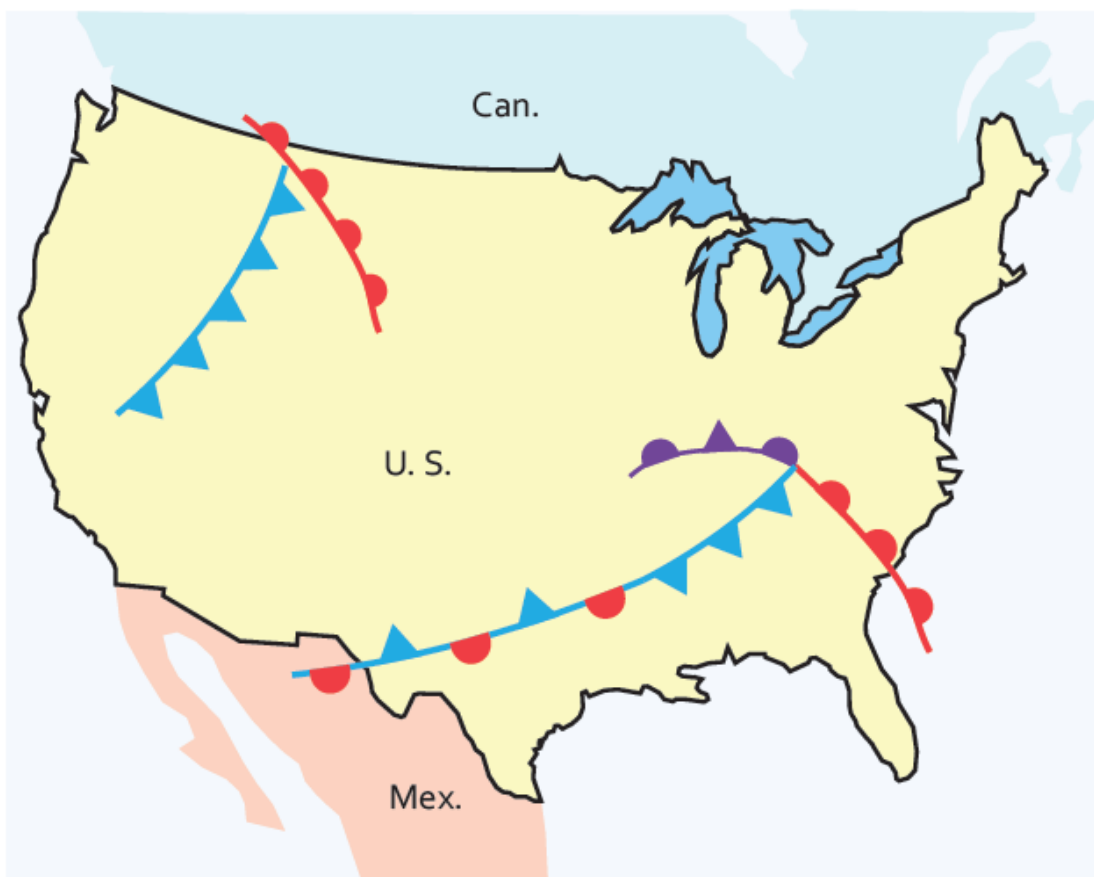
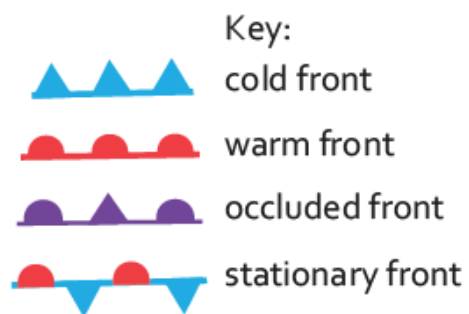
The Greenhouse Effect



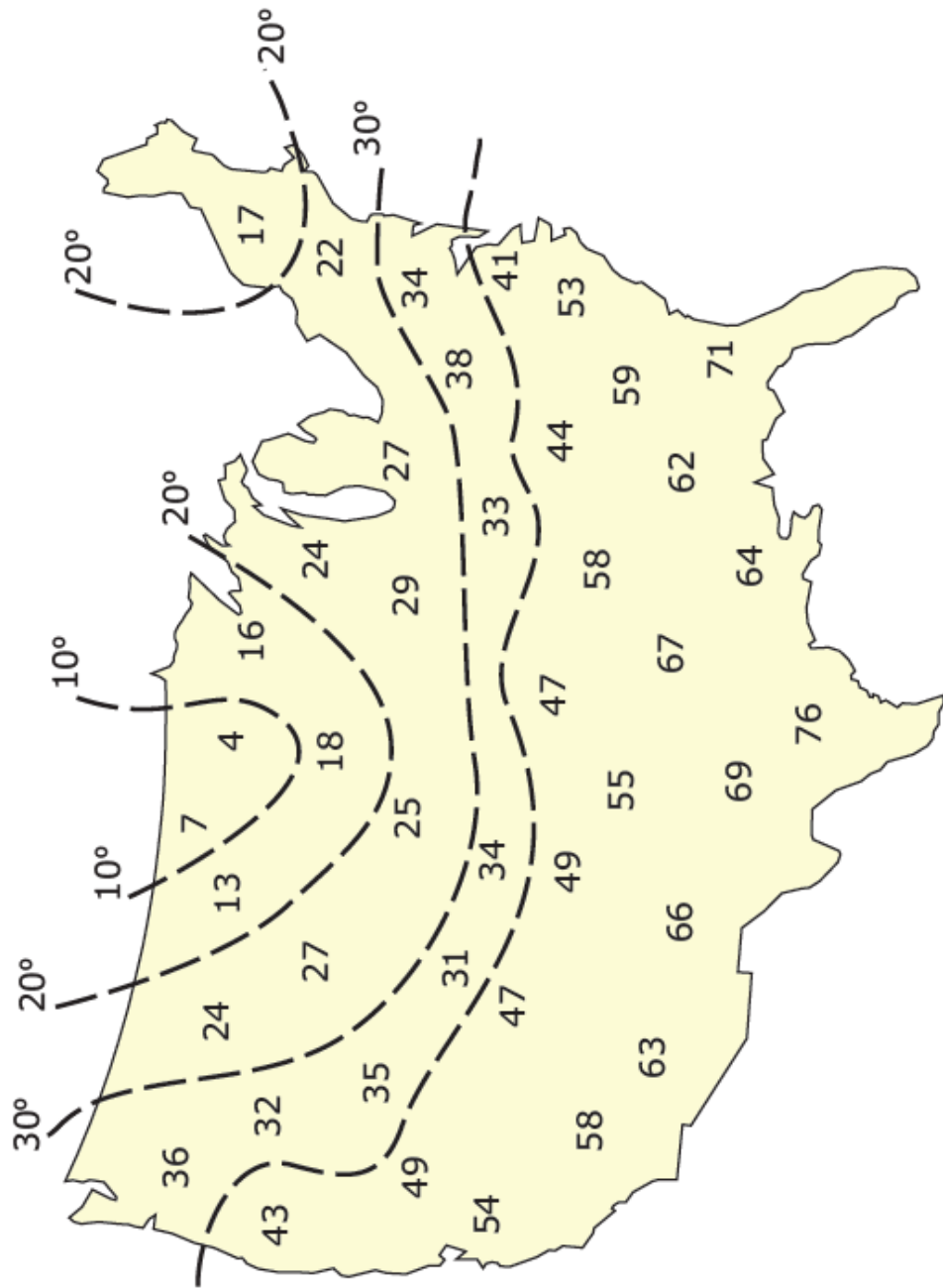
CO₂ and Temperature Change Since 1960



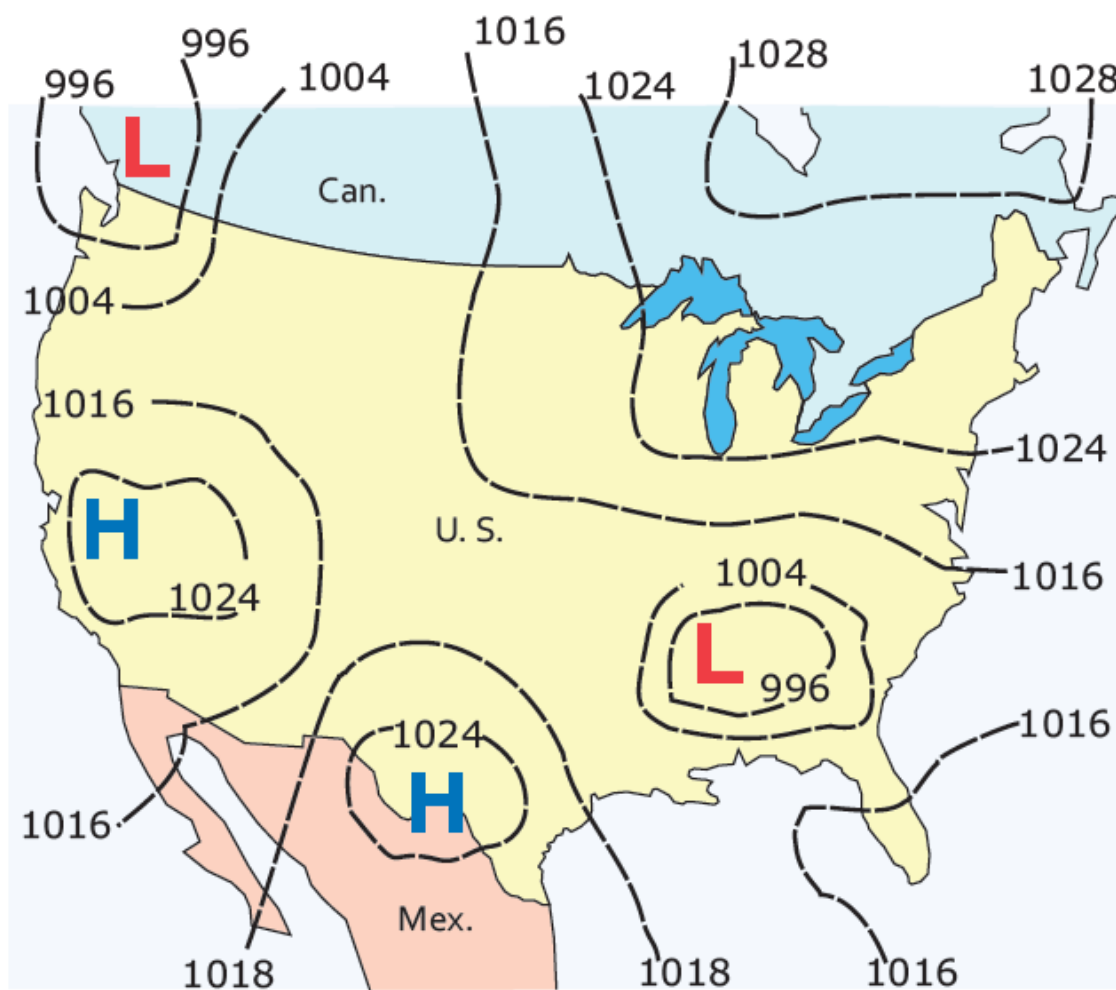
Weather Fronts



Isotherm Examples on US Map

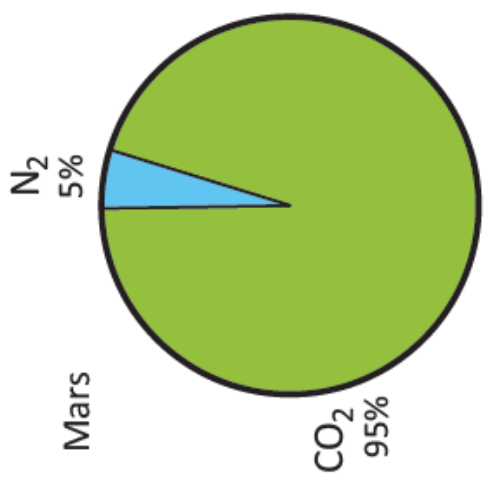
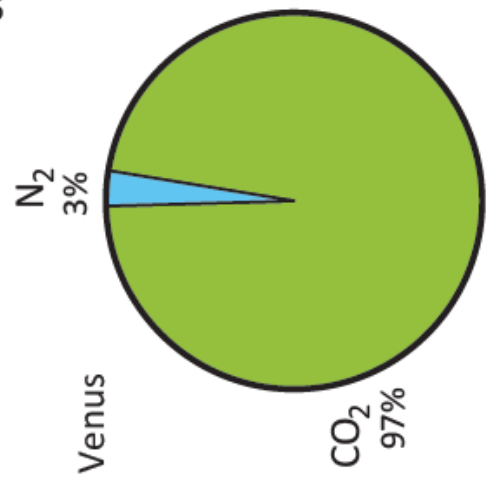
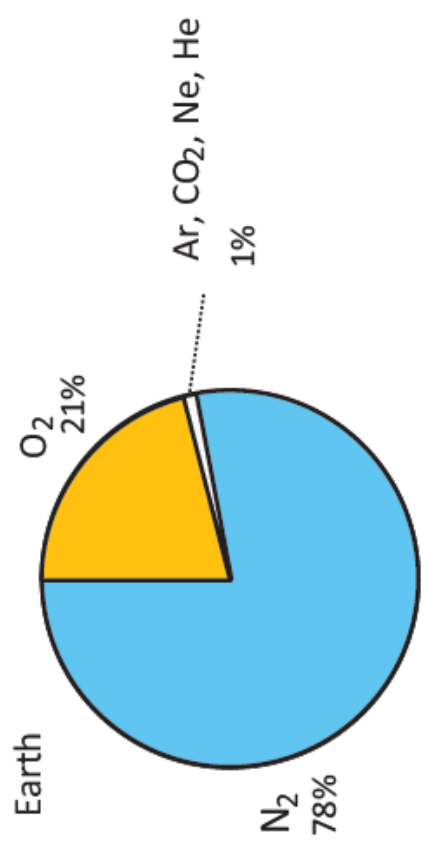


Key:

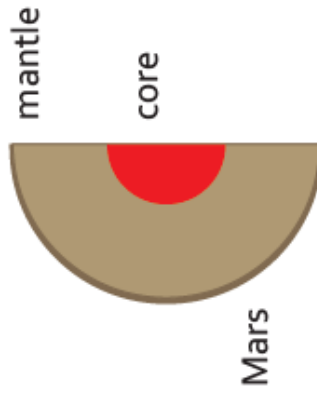
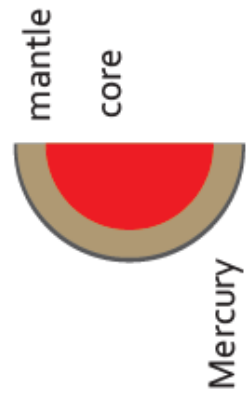
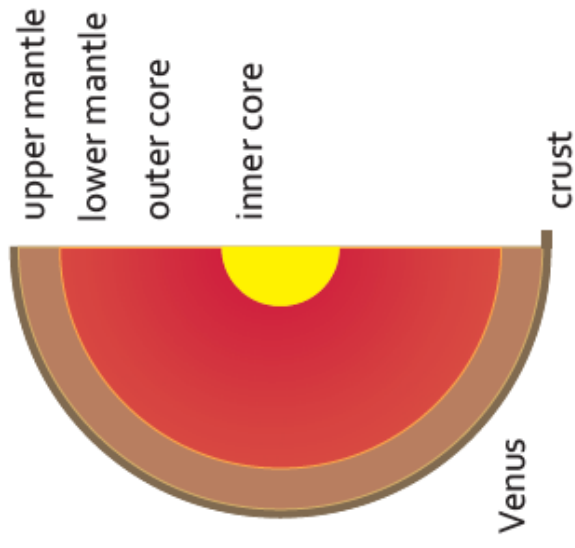
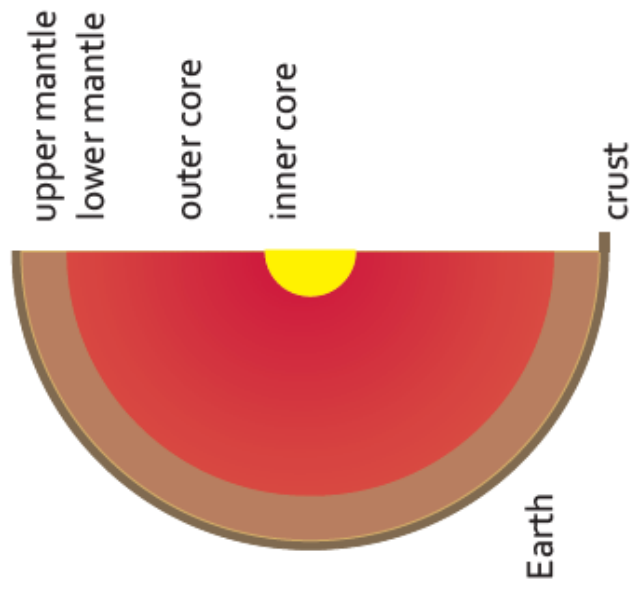
H high pressure area**L** low pressure area

Atmospheres of Terrestrial Planets

36

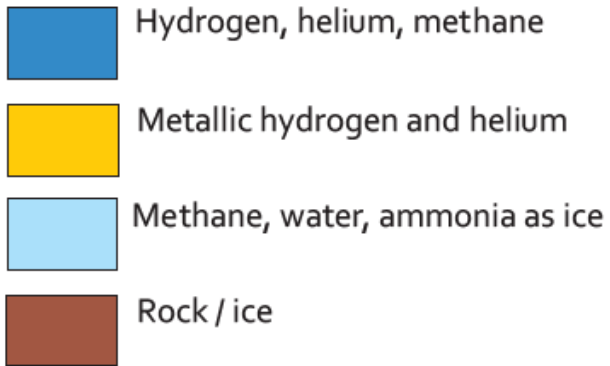


Internal Structure of Terrestrial Planets



Composition of Gas Giants

Key:

size of
Earth

Jupiter



Saturn



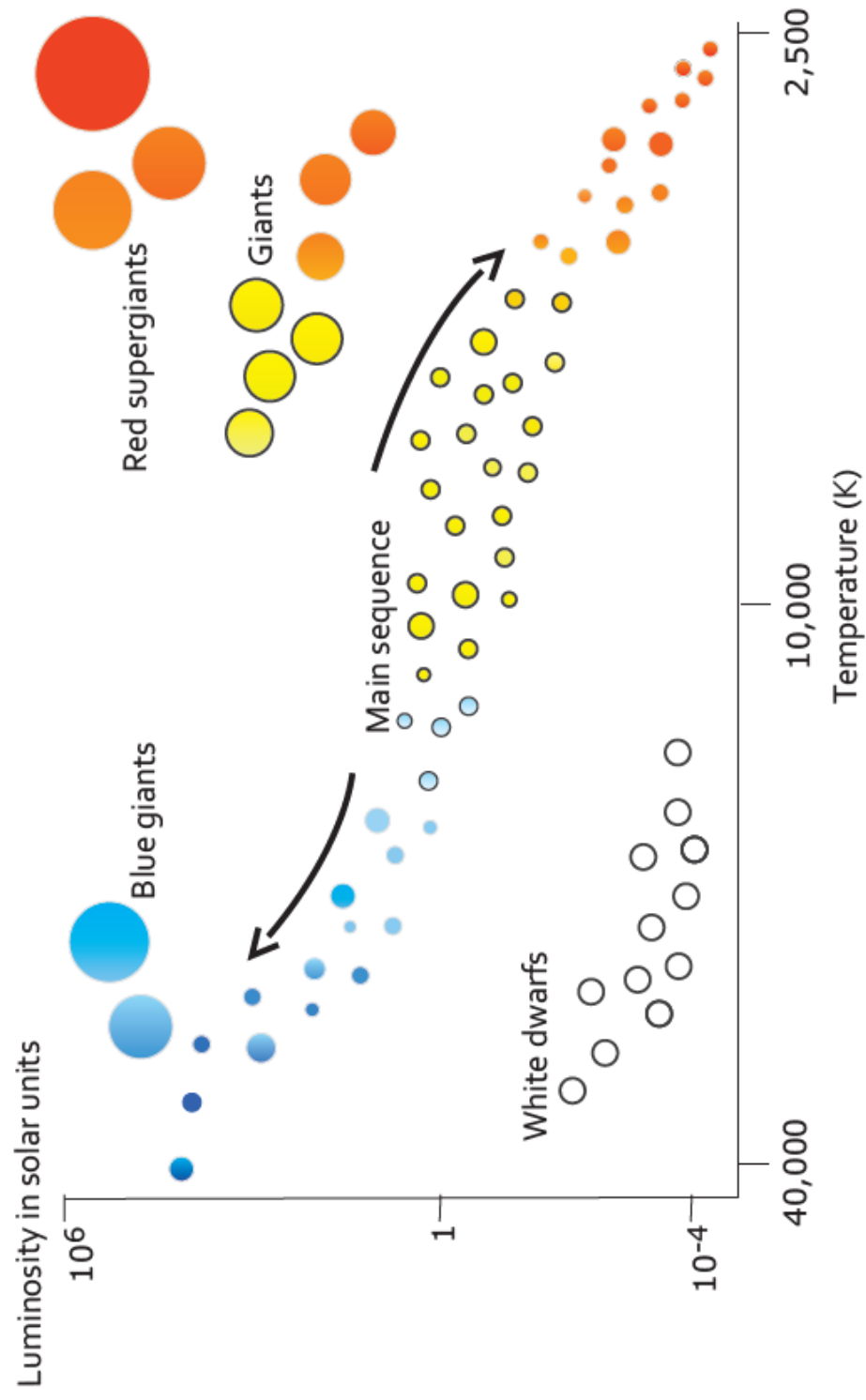
Uranus



Neptune



Hertzsprung-Russell Diagram



Structure of a Comet

