

Introduction and Plate Terms

- Hypothesis
- Theory
- External heat engine
- Internal heat engine
- Radioactive decay
- Thermonuclear fusion
- Subduction
- Convection
- Divergent boundary
- Convergent boundary
- Transform boundary

Plate Tectonics Terms

- Lithosphere
- Asthenosphere
- Oceanic Crust
- Continental Crust
- Upper mantle
- Lower mantle
- Outer Core
- Inner core
- Moho
- Magnetic Anomaly

Atoms & Elements Terms

- Proton
- Neutron
- Electron
- Atomic weight
- Atomic number
- Mass Number
- Cation
- Anion
- Valence
- Isotope
- Nuclear Fusion
- Nuclear Fission
- Chondrule
- Siderophile
- Atmophile
- Chalcophile
- Lithophile

Mineral & Rock Terms

- Mineral
- Crystal
- Hardness
- Luster
- Habit
- Density
- Isomorph
- Polymorph
- Isotope
- Fusion
- Fission
- Chondrule
- Siderophile
- Atmophile
- Chalcophile
- Lithophile

Igneous Rock Terms

- Polymerization
- Magma
- Igneous Fractionation
- Partial melting
- Fractional Crystallization
- Ultramafic
- Mafic
- Intermediate
- Silicic
- Peridotite
- Gabbro
- Diorite
- Granite
- Pluton
- Stock
- Batholith
- Dike
- Sill

Sedimentary Terms

- Boulder (>256mm)
- Cobble (64-256mm)
- Pebble(2-64mm)
- Sand (.06-2 mm)
- Silt (4 - 60 μ m)
- Clay (<4 μ m)
- Conglomerate
- Breccia
- Arkose
- Sandstone
- Siltstone
- Shale
- Limestone
- Evaporite
- Reef
- Lithification
- Cross bedding
- Ripple marks
- Alluvial
- Fluvial
- Eolian

Metamorphism Terms

- *Regional Metamorphism*
- *Contact Metamorphism*
- *Isochemical*
- *Metasomatism*
- *Hydrostatic*
- *Foliation*
- *Lineation*
- *Terrane*
- *Quartzite*
- *Phyllite*
- *Slate*
- *Schist*
- *Gneiss*
- *Marble*
- *Eclogite*
- *Granulite*
- *Migmatite*

Sample Short Essays

- 1. What is a mineral and how does it differ from a rock?
- 2. What are protons, neutrons, electrons, isotopes, and elements and how were they formed?
- 3. What is igneous fractionation and how does it account for the differences between mantle, oceanic crust and continental crust?

Sample Short Essays

- 4. What is the scientific method and how is it used to draw conclusions about the origin and age of the Earth?
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- 5. What are the two major energy sources that drive Earth processes and which processes does each primarily control?
- 6. Why is there no oceanic crust on the planet that is older than 200 million years?

Sample Short Essays

- 7. How do the weathering rates of the different minerals in granite give rise to different grain sizes of the weathering products?
- 8. How does the transport of sediments (weathering products) by wind and water result in the different sedimentary rocks having different compositions?

Sample Short Essays

- 9. Why do metamorphosed shales account for about 70% of all metamorphic rocks?
- 10. How do metamorphic petrologists estimate the maximum temperature and pressure experiences by a rock?