

Study Topics for Exam #2 (Episodes 10-18)

Chapter 8, Geologic Time (Episode 10)

- 1) Relative Dating Techniques
 - a) Superposition
 - b) Original Horizontality
 - c) Faunal Succession
 - d) Cross-cutting Relationships
 - e) Inclusion
- 2) Absolute Dating Techniques
 - a) Radiometric Dating
 - b) Cosmogenic Dating*
- 3) Time Divisions of the geologic time scale
(Eons>>Eras>>Periods>>Epochs>>Ages)

More Chapter 8, Evolution through Time (Episode 11)

- 1) The Importance of Stromatolites (Cyanobacteria) to Life on Earth
- 2) Major Occurrences of the Geologic Time Scale
(What happened during each major Eon, Era or Period?)
- 3) The Paleozoic and Mesozoic Mass Extinctions
- 4) What's in the La Brea Tar Pits?
- 5) Fossil Formation

Chapter 9, Minerals (Episode 12)

- 1) Formation of Minerals
 - a) Geothermal or Hydrothermal Formation of Ores
 - b) Evaporites
- 2) Ionic Bonding and Covalent Bonding of elements
- 3) Physical Properties of Minerals
- 4) Criteria to be called a mineral

Chapter 10, Volcanism (Episode 13)

- 1) Types of Volcanoes
 - a) Shield
 - b) Composite Cones or Stratovolcanoes
 - c) Cinder Cones
- 2) Famous Volcanic Eruptions
- 3) Where do volcanoes occur?
 - a) Locations of Earth
 - b) Locations in the solar system

Chapter 11, Intrusive Igneous Rocks (Episode 14)

- 1) Texture: Granite and Rhyolite
- 2) Igneous Intrusions
 - a) Dikes and Sills
 - b) Laccoliths
 - c) Batholiths
- 3) Bowen's Reaction Series

Chapter 12, Weathering and Soil (Episode 15)

- 1) Mechanical Weathering and Examples
- 2) Chemical Weathering and Examples
- 3) Soils and their development

Chapter 13, Mass Wasting (Episode 16)

- 1) Creep and evidence
- 2) Point Fermin Landslide
- 3) Flows, Slip and Fall

Chapter 14, Sedimentary Rocks (Episode 17)

- 1) Continental Environments
- 2) Shoreline Environments
- 3) Marine Environments
- 4) The Formation of a Sedimentary Rock
- 5) Sedimentary Structures
 - a) sorting
 - b) cross-bedding
 - c) graded bedding
 - d) stratification

Chapter 15, Metamorphic Rocks (Episode 18)

- 1) Foliated and Nonfoliated rocks
- 2) Metamorphic Facies
- 3) Factors that determine the texture and composition of metamorphic rocks

I will ask you seven or eight essay questions from this list of topics. You will be only required to answer five of those questions. There will also be a bonus question. The essay section of the test is worth 50 points. The multiple choice part of the exam is also worth 50 points.