

Exam 2 Review

In order to be fully prepared for exam 2 you should be able to fully respond to each statement below.

1.Sedimentary Rocks

1.1.What is a **clastic sedimentary** rock?

1.1.1.What is a **chemical sedimentary** rock?

1.1.2.How do clastic sedimentary rocks form?

1.1.3.What terms are used to describe the grain size of clastic sedimentary rocks

1.1.3.1.What do grain sizes tell us about the environment in which the sediment was deposited?

1.1.4.What does **sorting** refer to?

1.1.5.What does **rounding** refer to?

1.2.What is the difference between chemical and biochemical sedimentary rocks

1.3.What are sedimentary structures

1.3.1.Describe bedding(stratification)

1.3.1.1.define: **Beds, lamination**

1.3.2.Describe how **graded bedding** forms

1.3.3.Describe how **cross-bedding** forms

1.3.4.Describe how ripple marks form

1.3.4.1.**current ripple marks** (asymmetrical)

1.3.4.2.**wave-formed ripples** (symmetrical)

1.3.5.Describe how mud cracks form

1.3.6.What are biogenic sedimentary structures?

1.4. How do the major sedimentary environments differ from one another?

2. Metamorphic Rocks

2.1. Be able to define what a metamorphic rock is?

2.2. Be able to define what a [Protolith](#) is

2.3. Be able to describe the causes of metamorphism. Be able to describe metamorphic processes:

2.3.1. [Recrystallization](#)

2.3.2. [Phase change](#)

2.3.3. [Neocrystallization](#)

2.3.4. [Pressure Solution](#)

2.3.5. [Plastic deformation](#)

2.4.9. Be able to describe metamorphic grade and how it relates to contact metamorphism, mountain building, and subduction.

3. Plate Tectonics

1. Early ideas (continental drift)

1. How was fossil evidence used to show continental drift? Explain.

2. What climatologic evidence was used to show continental drift? Explain.

3. What geologic evidence was used to show continental drift? Explain.

2. Earth's Interior

1. Be able to list and describe Earth's internal layers (lithosphere, asthenosphere, mantle, outer core, inner core)

3. Explain paleomagnetism.

1. What are polar wandering curves and why were they useful in showing continental drift?

2. How was paleomagnetism used to show sea-floor spreading?

4. Plate Tectonics Theory

1. What is a lithospheric plate?

2. What is the difference between continental and oceanic plates.

3. What is a divergent plate boundary?

4. Be able to sketch the profile of a divergent plate boundary.

5. What geologic feature occur at divergent plate boundaries?

6. What is a convergent plate boundary?

7. Be able to sketch the profile of the three convergent plate boundaries.

8. What geologic features occur at oceanic-oceanic convergent plate boundaries?

9. What geologic features occur at oceanic-continental convergent plate boundaries?

10. What geologic features occur at continental-continental convergent plate boundaries?

11. What mechanisms are responsible for plate tectonics?

1. Describe convection models

2. Slab-pull

3. Ridge push