

Physical Geology

Review Questions

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Weathering and Soils

- What is the difference between regolith and soil?
- What are three processes of physical weathering and how do they occur?
- What are talus piles and how do they form?
- What are the planes of weakness where weathering occurs?
- Describe the three common chemical reactions in soils and how they take place.
- How does clay form and accumulate in soils?
- What is the relative susceptibility of silicate minerals to weathering?
- What is the chemical reaction involved in the weathering of limestone?
- How does spheroidal weathering, columnar weathering, and exfoliation occur?
- What are the major soil horizons and their characteristics?
- What are the three main factors influencing rates of weathering?
- What are caliche, laterite, and bauxite?

Sediment and Sedimentary Rocks

- What processes turn sediment into sedimentary rock (know the difference between lithification, compaction, and cementation)
- Define and describe the differences between clastic (detrital) and nonclastic (chemical) sedimentary rocks.
- How do you tell the difference between limestone and sandstone?
- How do you tell the difference between shale and mudstone (hint describe fissility)?
- What are the four basic types of clastic sediment and how do you tell them apart?
- How can organic sedimentary rock form? What are carbonates?
- How does chemical sedimentary rock form? What are evaporites?
- What are the common cements in sedimentary rocks?
- How do graded bedding, cross bedding, ripple marks, and mudcracks form? How are they useful to geologists?
- How are sedimentary structures used to determine paleocurrent directions?