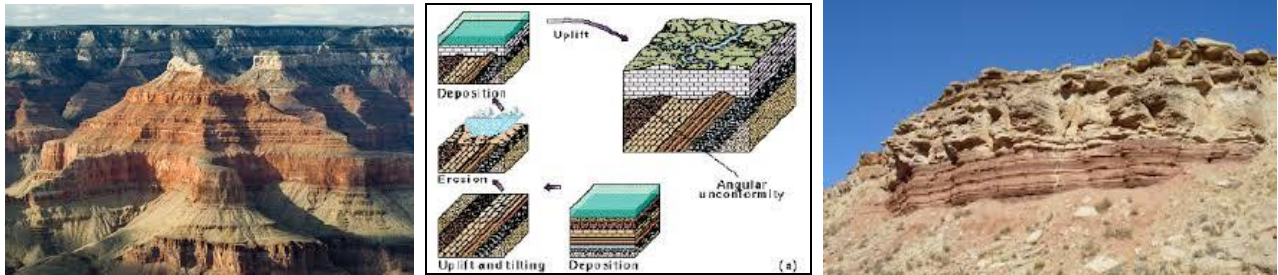


Name: _____

Date: _____

Graded Assignment

Lab Report: Turn in by Sunday, 11/23 for full credit!



In this laboratory assignment, you will write a **narrative history** of a rock section found in the Grand Canyon. You will **describe and explain the events** starting with the Vishnu Schist forming and ending with the unconformity above the Redwall Limestone in the Mississippian. Your description should include environmental changes.

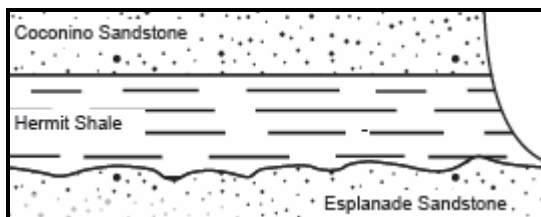
Step 1: Read the Lesson 4.06 carefully and download the [Student Guide](#).

Step 2: Examine the example below. Notice that **each layer is mentioned and described!** Your description will be much longer because there are many more layers.

Step 3: See the diagram on the last page. Answer questions 1 and 2 fully using the diagram (page 5) and the key (page 4).

Step 4: Turn in **pages 2 and 3** to Dropbox by the 11/23 for full credit. **Any work submitted after the midnight deadline will be counted for up to 70% of the points possible (30% off).** Click the link for [Instructions to use Dropbox](#)

Example:



- *Sea level lowered, and the Esplanade Sandstone was deposited in a beach environment.*
- *Erosion, and the sea level rose.*
- *Hermit Shale deposited in a deeper sea.*
- *Sea level drops, returning the area to a beach environment where the Coconino Sandstone was deposited.*

Name: _____ Date: _____

- Examine and then describe the bottom half of the cross section (page 5) in the space below. Your description should read like a story, describing how the area formed geologically. Start with the Vishnu Schist and end with the Redwall Limestone. For full credit, **your description must be at least ten sentences long and must mention the name and the environment of each layer shown**. Please write in complete sentences.

Scoring:

(8 points)

Correct order – Are the layers listed and described in chronological order? (Please list layers from oldest to youngest).

Score

(8 points)

Proper environmental changes – Did you describe how the environment changed between layers?

Score

(4 points)

Attention to detail and completeness – Did you mention each layer and describe how it formed?

Score

Answer:

(5 points)

2. There is one of each type of unconformity in the diagram on page 5. **Identify at least one of each of them by indicating the layers that they are between.** Make sure you explain how you know where each unconformity is located.

Score

Need help with unconformities? Use this [link](#) for help identifying the different kinds of unconformities.

Answer:







Nonconformity:

Angular unconformity:

Disconformity:

Your Score	___ of 25
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Key – You do NOT have to turn this page in.

Symbol	Name	Environment
	Sandstone	Beach or nearshore environment
	Limestone	Forms in warm shallow seas
	Shale	Deep sea
	Igneous rock (granite)	Formed when rocks melt and then recrystallize
	Metamorphic rock (schist)	Formed when rocks are severely deformed without melting; in this cross section, the Vishnu Schist represents the original surface in the area
	Igneous intrusion	Magma melting and rising from deeper levels

Hint: How can you tell the difference between an intrusion and rocks melting in place? Rocks melting in place usually appear as a large mass, whereas intrusions seem to have risen up from a source.

Cross-Section – You do NOT have to turn this page in.

