

Grand Canyon Geomorphology: Lecture & Quiz

⚠ This is a preview of the published version of the quiz

Started: May 18 at 4:41pm

Quiz Instructions

The geomorphology lab that uses a geovisualization of Grand Canyon topography and geology is really asking "Why is the Grand Canyon so grand?" Its sort of a silly question, but also sort of summarizes the idea of you breaking down a complex landscape into peices.

An audio-visual presentation is intended for you to obtain basic background information on the geology and geomorphology to help you with the lab. **You can also obtain the same information from this file and read it ([PDF version](#); [MS Word version](#)).**

To access the [audio-visual presentation](#) (https://www.asu.edu/courses/gph111/112/112_html5_Presentations/PublishGrdGrandLectureStageA/index.htm), **you will be asked for a logon and password. DO NOT USE YOUR UNIVERSITY PASSWORD!!** Use this logon: **gph111** and a general password: **gaia**

- If the presentation's doesn't run, hit refresh on your browser, or try a different browser.
- If the presentation's audio freezes on the first slide, then just click on the second slide and get going faster.. There's nothing on the quiz that is presented in the first slide.

When you are done reading the PDF file or watching the presentation, just take the quiz.

Slide Title	Duration
Slide 1	00:16
Grand Canyon Region	00:00
Study Site: Heart of...	00:36
Topics in Presentat...	00:26
Grand Canyon Geology...	01:29
Great Unconformity	01:00
Lab Focus	02:22
Bright Angel Fault: ...	00:47
Bright Angel Fault: ...	00:35
Grand Canyon origin...	00:46
But the river starts...	01:34
Reached 'bottom' abo...	00:52
4 ways a river can c...	01:06
Processes of deepen...	00:49
Longitudinal Profile...	01:36
River removes all ma...	00:41
How does the Grand C...	00:49

(https://www.asu.edu/courses/gph111/112/112_html5_Presentations/PublishGrdGrandLectureStageA/index.htm)

Question 1

1 pts

Why do you see so much bare rock in the Grand Canyon?

- _____
- Transportation (erosion) of decayed rock is at about the same rate as the rate of rock decay
- Transportation (erosion) of decayed rock is faster than the rate of rock decay
- Transportation (erosion) of decayed rock is slower than the rate of rock decay

Question 2**1 pts**

How long ago did the Colorado River start to incise into the rocks of the Grand Canyon? And when did this incision (down cutting) of the Colorado River reach its present-day elevation (level)?

- The Colorado River cut down (incised) during the last ice age.
- The Colorado River was not incised by the river. A giant asteroid blew out the Grand Canyon.
- The Colorado River cut down (incised) between about 80 and 50 million years ago as the Kaibab Upwarp was being uplifted.
- The Colorado River cut down (incised) between about 4.8 and 1.2 million years ago

Question 3**1 pts**

What allows the tributary streams (side streams) of the Grand Canyon to erode down to the level of the main Colorado River?

- a low gradient from the top of the stream system to the Colorado River
- the rock types along the stream channels have been crushed by all those flash floods
- the Kaibab Limestone rock that erodes off the plateau is so hard that it can crush the weaker rock underneath it as it floods down to the Colorado River
- a steep gradient from the top of the stream to the Colorado River

Question 4**1 pts**

What is the top (youngest) formation in the Paleozoic sequence of the Grand Canyon that also makes up the plateaus that surround the Grand Canyon?

- Vishnu Schist
- Coconino Sandstone
- Redwall Limestone
- Kaibab Limestone

Not saved

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