**GEOL102 – Fossil Project Due: April 27th**

Project topic description

For this project you will research and report on a fossil and fossil site.

You must include the following content (in your paper AND presentation):

1. A summary of the fossil site – including the:
	* age (both in years and in geologic time scale)
	* location
	* rock type
	* history of the discovery of this site
	* type of fossil preservation (taphonomy) – why and how were they preserved? can you determine why these animals died?
	* general description of the biota
	* depositional environment/paleoecology
	* geologic context (what was happening at that time – sea level fall/rise; tectonic events/orogenies)
	* comparison with other biotas of the same age
2. A detailed description of one of the fossils from the site (your “focus fossil”) – including:
	* A close up photo of the real fossil
	* An artist’s rendition of what this organism might have looked like in life
	* Biologic context (what did it eat/use as an energy source?; what kind of organism is it most closely related to today?; what type of ecosystem did it live in and what was its role in that ecosystem?)
3. A statement of your personal opinion on the importance of this particular fossil site for learning about changes in life through time and the history of earth.

Project requirements

This project will be an individual project. You will turn in a paper and summarize your findings in a presentation to the rest of the class.

**Paper**

* Due: submitted to Blackboard, Monday, April 27, 11:59pm
* Style: 12pt, Times New Roman, APA format – NO abstract needed (lit review), 1200-1500 words, separate title page with title, author, and class information
* References: Use at least five scientific references, each must be cited within the text of your paper.
* Assessment: Grades will be based on: content, page count, formatting, references, and overall flow/content readability.

**Presentation**

* PowerPoint file, Due: submitted to Blackboard, Monday, April 27, 11:59pm
* Present to the class – via screencast recording – see details on the next two pages
* Timing: 5 minutes
* Assessment: talks must be clear and organized. Grades will be based on: timing, content, and presentation professionalism.

**Presentation Details**

* ***Create a 5-minute video presenting your fossil site project***
	+ Your screencast video should be between 4:50 and 5:10 minutes long. You will lose points for too long or too short.
	+ Your screencast should include the following:
		- Visuals - your power point slides directly embedded into your software
		- Voice over recording of you explaining the visuals
	+ Screencasting software - the following are a few options, but you can use any program as long as it allows you to record the necessary audio and visual information and the video can be saved as a .mp4 file.
		- Screencast-o-matic: <https://screencast-o-matic.com/>
		- Screencastify: <https://www.screencastify.com/>
		- Explain Everything: if you want to do everything on your phone, then this is the app for you: <https://explaineverything.com/>
		- Other websites/apps: feel free to do some research and explore other options!
	+ Download and save your video as a .mp4 file
* ***Embed your video into Blackboard***
	+ Embed (do NOT attach) your video in the discussion forum called "Project Presentation Videos". This means you should be able to see your video and play it without having to click on a link. Videos that are not embedded will not be graded!

**Tips:**

* Text on your slides should be minimal or nonexistent - your voice will do the talking.
* Think about what you want to say before you start recording; you can have a script. This will help you pace the video and also help you determine how many images you will need.
* You should use your cursor to point things out in your images, graphs, etc. Let us know what we are looking at or how to interpret the graph you are showing us.
* Make sure your images are high resolution, not fuzzy, and fill the screen. If you have multiple images on one screen then make sure it is spatially pleasing with images large enough to see.

One of your tasks associated with this assignment will be to ***view all of the presentations and vote on your top 5 favorite videos***. To vote you must reply to the thread, mention the name of the person, and give a reason why their presentation is one of your favorites.

**Example presentation layout:**Your video should cover all the required content described on page 1. Here is an example of how you might lay out the required content.

* Slide one: Your fossil site
	+ Image: Name and age of the fossil site and a map showing its location
	+ Recording:
		- Introduce yourself, the name of your fossil site, where it is located, how long ago it formed, who discovered it
* Slide two: Geologic history
	+ Images: paleogeographic map showing fossil site location at the time of formation, depositional environment image (e.g. image of a swamp or whatever it was, etc)
	+ Recording: Describe what the ancient environment was like, what series of events lead to the death of these organisms and fossil being particularly well preserved here (in this context, mention eventual rock type and fossil preservation type)
* Slide three: Geologic context
	+ Image: Timeline of events (If you’re in N. America: you can use a diagram from the Cratonic Sequences class materials) with a label of when your fossil area formed on the diagram
	+ Recording: Discuss what else was going on (in terms of sea level & mountain building) at the time your fossil site is capturing a snapshot of life
* Slide four: Biologic context
	+ Images: Life through time with a label of where your site falls within the story, biota images
	+ Recording: General description of this biota and comparisons with other biotas of the same age, give a context for what life on Earth at this time. What life is dominant on Earth at this time?
* Slide five: Focus fossil
	+ Images: Fossil image, artist’s rendition of this organism alive
	+ Recording: Details on this particular organism and its role in its ecosystem, the importance of this fossil and/or the fossil site in general for helping scientists tell the story of changes in life through time.