

Geologic Timeline analysis - DUE THURSDAY 3/8

Answer the questions about your timeline. You should only use your timeline, your group timeline and your brain. DO THIS ON YOUR OWN. THIS IS NOT A PAIR OR GROUP ASSIGNMENT.

1. The first complex animals on Earth... (circle one)
 - a. developed on land and moved to the oceans when it got too hot
 - b. developed in the oceans and moved to the land when the oceans became too cold
 - c. developed in the oceans first, then certain creatures evolved to live on land
 - d. were likely brought here by an asteroid or comet.

2. Explain your answer to #1.

3. Write the period and era that the event took place

Event	Period	Era
first flowers		
first life arises		
3rd mass extinction (in time)		
first forests		
first reptiles		
first fish		
first eukaryote		
most recent snowball earth		
first birds		
present day		

4. Explain the general causes of mass extinctions. Why do you think there aren't any on your timeline before 440 million years ago?

5. Life began to become more diverse around the time of the Cambrian period. About what percentage of the earth's history (4.6 billion years) has there been diverse life?
6. Think about the time scale of the development of life on earth. **Write 1-2 paragraphs comparing the first 4 billion years to the last 600 million.** Oxygen didn't start to accumulate in the atmosphere until the last 1 billion years (1,000 million years). Include in your paragraph what effect you think this had. *Add paper if necessary.*

Evolution: Analyze and interpret the existence, diversity, extinction and change in life forms throughout the history of Earth

Highly Proficient (4)	Proficient (3)	Close to Proficient (2)	Developing (1)
Proficient, plus: <input type="checkbox"/> a clear understanding of the development of life on Earth is evident. <input type="checkbox"/> all answers have evidence and detail. <input type="checkbox"/> student is able to analyze the model for trends	<input type="checkbox"/> student understands the basic development of life on Earth <input type="checkbox"/> analysis questions are complete and most show thought.	<input type="checkbox"/> Student has some knowledge of the development of life <input type="checkbox"/> Answers need more detail for higher level <input type="checkbox"/> Some information is incorrect	<input type="checkbox"/> no understanding is shown <input type="checkbox"/> questions are mostly incomplete.

Science Practices: Modeling the history of the Earth

Highly Proficient (4)	Proficient (3)	Close to Proficient (2)	Developing (1)
Proficient, plus: <input type="checkbox"/> Timeline is final draft quality <input type="checkbox"/> Labels are written neatly and easy to read. <input type="checkbox"/> Events are written neatly and are easy to read	<input type="checkbox"/> Timeline is complete, labeled and mostly correct <input type="checkbox"/> Timeline could be made neater and easier to use as a model.	<input type="checkbox"/> timeline is partially complete <input type="checkbox"/> labels are incorrect, messy or missing. <input type="checkbox"/> events are incorrect, messy or missing	<input type="checkbox"/> timeline is incomplete.

STAPLE YOUR TIMELINE TO THE TOP LEFT

name _____ per _____