USC Lesson Plan DAY 6

Teacher Candidate	Karli Terlinde
School	Fulmer Middle School
Content Area(s) & Grade Level	8th Grade Science
Date	3/18/2024

Essential Question:

How do geologic events, such as mass extinctions or continental drift, correlate with changes in the fossil record?
What factors contribute to the extinction of certain life forms as documented in the fossil record?

Standard(s):

8-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction,and change of life forms throughout the history of life on Earth under the assumption that natural laws operated in the past as they do today.

Learning outcomes (goals) associated with the content standards (subject-specific, relevant, interdisciplinary, measurable):

Students will be able to… apply knowledge of the fossil record to make predictions about potential future changes in ecosystems and biodiversity.

Students will be able to…analyze data from the fossil record to identify patterns that document the existence, diversity, extinction, and change of life forms throughout Earth's history.

What will <u>you do in this lesson</u> to make it meaningful and relevant to your students?

Students will be comparing their estimated timeline (prior knowledge) to the correct order of geologic timeline.

How will you initially engage your students in today's lesson (e.g., hook, attention getter, topic introduction)?

Student Paper Toss Check-In!
Upon greeting students at the door, the educator will do a check in activity.

What "warm-up" will you use today? (if applicable)
Student Paper Toss Check-In!
Upon greeting students at the door, the educator will do a check in activity.

Assessments used to monitor student learning:

<u>Assessment</u>	<u>Type of Assessment (in/formal)</u>	<u>What is being assessed?</u>
1. Digital Questionnaire: Fossil Record	1. Informal	1. Student engagement with video and facts about the fossil record
2. Geologic Timeline Notes	2. Informal	2. Student understanding of what they learned in this set of notes (Geologic Timeline)

Elements	**Procedures/Activities** A description of each activity that you will use, including a script of the "teacher talk" you will say during each activity.	**Resources & Materials Used**	**Time**
Warm-up (if applicable)	Student Check-In! Upon greeting students at the door, the educator will do a check in activity. "I am passing out sticky notes now to everyone individually. Now, I want you to write how you are feeling on this sticky note. It can be something you are excited about, nervous about, anything you want to share! You do NOT have to put your name and there is a chance it may be read aloud. I will give you about two minutes to write down something. Once you are done, sit tight and crumble up your papers." Once students are finished, go over classroom rules and expectations. Students will be (on educator count) tossing their papers to the front of the room. The educator will then select a few sticky notes to read aloud, offering supportive feedback.	Sticky Notes Writing Utensil	3-5 minutes
Activity to initially engage students in today's lesson	Educator will play (continue playing if started the day prior), the Generation Genius Video on the Fossil Record (16 minutes). https://www.generationgenius.com/videolessons/fossil-record-video-for-kids/ Students are expected to complete the digital questionnaire during the video. https://docs.google.com/forms/d/1s69NROeB6QFa70KS-2f4CdvcimCOAJB4TZ6KdXceGus/edit	SmartBoard ChromeBook Link to Video: https://www.generationgenius.com/videolessons/fossil-record-video-for-kids/ Link to Questionnaire: https://docs.google.com/forms/d/1s69NROeB6QFa70KS-2f4CdvcimCOAJB4TZ6KdXceGus/edit	16-20 minutes
Transition	Have students submit their questionnaires and open Google Classroom.		1 minute
Instructional strategies and learning tasks, including potential questions & prompts if appropriate Educator will walk around the room during this time and gauge the student's predictions. The educator may also need to adjust the timer to fit the needs of students! <u>Potential Questions to ask:</u>	Educator will begin going over the next task: Geologic Timeline Predictions. "How many of us have heard of the 'geologic timeline'? What do you think it is?" After giving students time to answer, begin to go over directions. "On Google Classroom, you will be able to open up the 'Geologic Timeline Predictions' WS. Individually, you will be making predictions about the order of events in Earth's history. You are given around 13 different events that you need to place on the timeline where you think they should go. You will place your guesses in the column labeled "Prediction". I am going to set a timer on the board for five minutes and then we will go over your selections and the correct answers!"	SmartBoard ChromeBooks Link to WS: https://docs.google.com/presentation/d/1djn6Y1LEOVnloz6x3v5JwJLTRvukA2O0pryIcGsSrP8/edit?usp=sharing	15 minutes

-How close were your predictions to the actual answer? -How old is the Earth? -Why was it necessary for plants to be present before animals would survive?	Once students have completed their predictions (timer may need to be roughly adjusted), the educator will pull up on the SmartBoard, the correct Geologic Timeline. The educator should ask questions to the class and have them discuss the follow-up questions on the back of the geologic timeline worksheet.		
Transition	Students should be asked to keep ChromeBooks open and pull up "Geologic Timeline" Notes on Google Classroom		1 minute
Instructional strategies and learning tasks, including potential questions & prompts if appropriate.	The educator will instruct students to access the 'Geologic Timeline' (blank) notes. https://docs.google.com/document/d/19qVcnz-hjeEfvlNxF6b9Y3qYXMcA92PGYruoKOOL3Qs/edit?usp=sharing The educator will then begin going over each slide, beginning with asking the EQ on slide 1. As the educator is going through slides, ensure each students has applicable time to complete their notes and ask questions periodically (higher-level/critical thinking questions): Examples:	ChromeBooks SmartBoard Notes Presentation https://docs.google.com/presentation/d/1Pu5lak_Z1wKr-iRP-JOqBxrvhiN2ihJqaQYm_I7CWE8/edit?usp=sharing Blank Student Notes https://docs.google.com/document/d/19qVcnz-hjeEfvlNxF6b9Y3qYXMcA92PGYruoKOOL3Qs/edit?usp=sharing	
Transition	Have students keep their chromebooks out. Students who completed the notes and the individual summary portion, they may submit. If not, students can complete for homework.		
Closure: Content and Procedural (homework if applicable)	Educator will go over the "homework slides" for today. https://docs.google.com/presentation/d/1nxRnrCSfJkuGuwaBbaeonwaqF-zZzJzLXwFgKX94cWQ/edit?usp=sharing Homework: If students have not already, the Ordering of Rock Layers notes will be due TODAY 3/18. The 'Geologic Timeline' notes are due 3/21. Emphasize to students that the summary at the end of each set of notes needs to be detailed, 4-5 complete sentences, showing what the students learned. This also counts as an "exit ticket" for this set of notes.	SmartBoard HW Slides https://docs.google.com/presentation/d/1nxRnrCSfJkuGuwaBbaeonwaqF-zZzJzLXwFgKX94cWQ/edit?usp=sharing	2 minutes
Lesson Extender--Whole Class & Individual (e.g., an additional activity that will enhance the learning of this concept)	Students can begin working on the first half of the Fossil Unit Study Guide if all notes have been turned it. https://docs.google.com/document/d/1kWlseI7-2u3_ouFmxovzDOdAr_EcrKxgOS4ogpCjrxo/edit?usp=sharing	ChromeBook	remaining class