Educator Overview

CSI: Cretaceous Science Investigation

Museums for Digital Learning

Audience	Grade levels 3-5	Subject Science	Topic Earth and Space Science
Guiding Questions	1. How are fossils formed and what can they tell us about how living things have changed over time?	2. How has the surface of Earth changed over time?	3. What can dinosaur fossils tell us about how Texas looked when they roamed the Earth?
Background Knowledge	Students will observe images and answer a series of probing questions to see what they already know about dinosaurs & fossils and how these things can teach us what Earth looked like millions of years ago. There is a **"Dino Detective Journal"** included as an additional resource on this page that may be printed and distributed to students prior to navigating the Resource Kit. The guide will allow students to have a place to record key information and help them successfully complete the Escape Room. It may also be submitted as an assignment.		
Guiding Question #1 Activities	Students will read through a series of **slides** explaining three different types of fossil formation: permineralization, amber, and imprint. Then they will complete **Engagement 1: Match That Fossil** using the annotation tools to identify which types of fossil formation the examples and definitions are referring to. This page may also be printed or projected on the board to complete as a whole group. There is also a pdf of the slides attached to the activity if you'd like to print these and post them around the classroom.		
Guiding Question #2 Activities	Students will read through a **narrative** describing The Geological Timeline and learn more about what the Earth looked like during the Cretaceous Period. They will navigate a Hot Spot map of Texas that highlights evidence of dinosaurs. Next, students will complete **Engagement 2: The Past & Present of Texas** questions using the annotation tools. This page may also be printed for students to		

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	complete by hand or projected on the board to complete as a whole group.
Guiding Question #3 Activities	It may be helpful to have a whole class discussion or search synonymous species before this activity. Students will read through the Sauropod Giants **slides** and observe images of synonymous species and identify similarities & differences by completing **Engagement 3: Sauroposeidon vs. Paluxysaurus** venn diagram using the annotation tools. This page may also be printed for students to complete by hand or projected on the board to complete as a whole group.
Reflection Activity	Students will utilize all the information from the Resource Kit to successfully complete **Engagement 4: Solve the Cretaceous Mystery!** There are 5 questions they must answer correctly to reveal the clues needed to escape. The correct answer is TEXAS. You could also use these questions as a formative assessment, quiz or an exit ticket.
Other Notes (Supplies needed, independent vs. whole class engagement)	All of the pdfs are linked on the Resource Kit under “Additional Resources” near the bottom of the screen. Some of the language and vocabulary might be difficult for the 3rd-5th grade reading level and students may need a little extra support understanding some of the text. It is suggested to read through some of the more challenging material, like the House Bill No. 16, together as a whole group. Any of these activities could be assigned to partners or small groups as well to encourage collaboration.