

CLEVELAND-LLOYD DINOSAUR QUARRY

Standards Alignment

RESEARCHQUEST

#1: WHAT DINOSAUR DID THESE BONES COME FROM?

Utah SEEd Standard

- **7.5.3** - Construct explanations that describe the patterns of body structure similarities and differences between modern organisms, and between ancient and modern organisms, to infer possible evolutionary relationships.

NGSS Standard

- **LS4-2** - Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships. [Clarification Statement: Emphasis is on explanations of the evolutionary relationships among organisms in terms of similarity or differences of the gross appearance of anatomical structures.]

ELA Standards

- **Reading: Information Text 7:** Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
- **Writing Standard 1:** Write arguments to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s) and organize the reasons and evidence clearly.
 - b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.

#2: WHAT HAPPENED AT CLEVELAND-LLOYD DINOSAUR QUARRY?

Utah SEEd Standard

- **7.5.2** - 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 operate today as in the past.

NGSS Standard

- **LS2-4** - Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations. [Clarification Statement: Emphasis is on recognizing patterns in data and making warranted inferences about changes in populations, and on evaluating empirical evidence supporting arguments about changes to ecosystems.]

ELA Standards

- **Reading: Information Text 1:** Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- **Writing Standard 1:** Write arguments to support claims with clear reasons and relevant evidence.
 - a. Introduce claim(s) and organize the reasons and evidence clearly.
 - b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text

#3: WHAT PHYSICAL FEATURES HELPED A DINOSAUR SURVIVE?

Utah SEEd Standard

- **7.5.1** - Construct an explanation that describes how the genetic variation of traits in a population can affect some individuals' probability of surviving and reproducing in a specific environment.

NGSS Standard

- **ETS1-2** - Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
- **ETS1-3** - Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

ELA Standards

- **Reading: Information Text 5:** Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings
- **Language Standard 6:** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.