

Colorado National Monument

Environmental Education

National Park Service
U.S. Department of the Interior



Lesson Plan: Bill Nye the Science Guy: Fossils

Unit Name: Fossils

Grade/Subject: Fourth/Life Science

Evidence Outcomes:

- a. Use evidence to develop a scientific explanation for:
 1. What fossils tell us about a prehistoric environment
 2. What conclusions can be drawn from similarities between fossil evidence and living organisms (DOK 1-3)
- b. Analyze and interpret data to generate evidence about the prehistoric environment (DOK 1-2)
- c. Evaluate whether reasoning and conclusions about given fossils are supported by evidence (DOK 1-3)
- d. Use computer simulations that model and recreate past environments for study and entertainment (DOK 1-2)

Lesson Learning Targets: Students will be able to tell what a fossil is, how fossils are made, identify several different types of fossils, and understand how fossils tell us about the prehistoric environment.

Materials: Bill Nye the Science Guy: Fossils (if you don't have the movie, it can be found and viewed on YouTube: <http://www.youtube.com/watch?v=Z4cjYND66J8>), worksheet for students to complete while they are watching the video.

Learning Sequence: What will happen during the lesson? Include *differentiation strategies, materials needed, and 21st Century Skills* that may be included.

Into(Launch): Ask the question does anyone know what a fossil is? Take a few answers, but before too much information is gathered, put up a KWL-W chart (what I know, what I want to know, what I learned, and what I still need to know) and fill in the KW part.

Explain that the student will be watching a video to gain some background knowledge on fossils. Tell them that while they watch they will be fill in a worksheet that shows some of their learning.

Gradual Release: I Do: Discuss with the students how to read each question so you know for what information you are listening. Go over key words for which students will want to listen. Start the video and do the first question together as a group.

I Do You Help: Go over the second question and tell the students you will be playing the video now and want them to help you listen for the answer. When they hear it they need to raise their hand. Start the video and play it until students find the second answer. If they miss it, go back and help them find it. Do this for the third question also.

You Do I Help: Explain that the students will now watch the video to look for the next two answers on their own, but that you will stop the video when they are covered to see if they found them. Before you start the video go over the vocabulary for which the students should be listening. Stop the video after the next two questions have been answered and go over the student work.

You Do I Watch: Explain you will now play the video through only stopping to discuss certain topics and that once the video is finished you will go over the questions as a class.

Closure: Go over the question worksheet and add any information the students want to add to the KWL-W chart.

Assessment: How will you know if they got it?

The assessment for this lesson will be the worksheet the students complete while watching the film.

Differentiation: If you would like, students can work in pairs to complete the worksheet or you can stop the video after the video discusses an answer for each of the questions.

Beyond(Independent project/practice): Students could go home and do further research on fossils using the information they discovered today.

Reflection: What worked well? Didn't? How will you proceed with the next lesson based on your formative assessment?