

The Great Fossil Find

Lesson Overview

In this lesson, students go on an imaginary fossil hunt. As the teacher reads a script, students find (remove from paper bag) paper fossils of some unknown creatures, only a few at a time. They attempt to reconstruct the creatures and hypothesize as to what the creatures are. Their interpretation tends to change as new pieces are found.

Standards Addressed

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| SC 2005 | 8-2.2 Summarize how scientists study Earth’s past environment and diverse life-forms by examining different types of fossils (including molds, casts, petrified fossils, preserved and carbonized remains of plants and animals, and trace fossils). |
| SC 2014 | 8.E.6A.4 Construct and analyze scientific arguments to support claims that different types of fossils provide evidence of (1) the diversity of life that has been present on Earth, (2) relationships between past and existing life forms, and (3) environmental changes that have occurred during Earth’s history. |
| NGSS | MS-LS 4-1 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 operate today as in the past. |

Disciplinary Literacy Best Practices

Read Aloud
Think-Pair-Share-Square

Lesson Plan

Time Required – One 55-minute Class Period

Disciplinary Vocabulary: fossil, paleontologist

Materials Needed:

- Narrative for teacher to read
- Paper bags containing paper cut-out fossil pieces (1 per team—pair of students)
- Student worksheet
- Skeletal Resource Manual
- Materials are available at <http://www.indiana.edu/~ensiweb/lessons/gff.pdf.html>

Assessment:

The Great Fossil Find poster or Exit Ticket

Engage

- The teacher will announce that they are going on a hunting expedition and they will be working in teams of two. They should get into their assigned groups and get their materials. Students should not open the bags until they are told to do so.
- The teacher will begin reading The Great Fossil Find (<http://www.indiana.edu/~ensiweb/lessons/gff.pdf.html>).

Explore

- At the designated points in the reading, students will take the specified number of bones from the bag and attempt to assemble them in hopes of identifying the animal. Students receive approximately 5 minutes each time they are asked to remove bones and assemble their findings.
- Upon completion of reading The Great Fossil Find, each pair of students joins another pair of students to compare and combine their findings. Groups of 4 are given 5 minutes to compare their findings with each other. Clues shared may help in reconstruction or possibly suggest an entirely different animal than earlier ideas. Students should apply the latest clues to the assembly of their fossil skeleton and record the type of animal suspected.
- Back in original pairs and using a Skeletal Resource Manual with drawings, students assemble their fossil skeleton for the final time and record their interpretation. Students answer their questions on the worksheet and return all of the “fossil bones” to the paper bag.

Explain

- Each pair will share with the class what they figured the creature to be and see how many interpretations were made. Answers to the questions should be discussed at this time.

Extend

- Each pair will make a poster following the directions provided on The Great Fossil Find Poster Instructions.

Teacher Reflections and Biographical Information

As I reflected on this lesson, I thought it went really well, but there is always room for improvement. The next time I will do a couple of things differently. I may introduce the story and then let the students read the story themselves. I may change the environment making the story a little more believable with possibly lanterns and a tent.

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This lesson was adapted from a lesson developed by the Evolution and Nature of Science Institutes (ENSI). The original lesson may be accessed at <http://www.indiana.edu/~ensiweb/lessons/gr.fs.fd.html>.