Lesson: Learning the Process of Paleontology

Grade Level: K-8
Activity Duration: 20 minutes

Background concepts:
- Many specific steps and techniques are followed and used between finding a fossil and museum display—this is the process of paleontology.
- Excavation of fossils is done carefully to accurately record as much scientific data as possible.
- Fossil preparation, completed by fossil preparators, is the step in the paleontological process where fossils are carefully removed from matrix, then cleaned and prepared for study or display.
- Different fossils may follow different paths through parts of the process of paleontology.

Objectives:
- Students will be able to explain major steps in the process of paleontology, and the general path a fossil follows from discovery to museum display.

Materials:
- Laminated Process of Paleontology images
- *List and Explanations of Major Steps in the Paleontological Process*
- Masking tape
- Whiteboard or large (6-8 feet long) piece of paper from roll Whiteboard markers or washable markers
Lesson Procedure:

1. Using tape, place “fossil discovery” image at the far-left end of a large sheet of paper (taped to wall, length parallel to floor) or whiteboard
2. Place “museum display” image at the far-right end of the paper or board.
3. Ask the students if they know, or have ever wondered, what happens between finding a fossil and seeing a fossil on display in a museum?
4. Explain to the students that the image to the left represents the initial discovery of a fossil (this could be by anyone—not just a paleontologist). Explain that the image to the right shows the same fossil as part of a finished museum display.
5. Ask if anyone can think of a step that happens between these two images.
6. Allow one student to say what they think should be added and then to go to the board or paper and add a simple sketch and label if possible to represent that step.
7. Choose another student and allow them to add a sketch. You may want to gently help with the order of events as this process continues, although event order should be covered at the end of the activity as a group.
8. Continue allowing students to add sketches until they, or you, decide they are done.
9. Go back over the drawing as a group to elaborate on the different steps in the process of paleontology and to modify the order of the steps as necessary.
10. Leave the drawing up in the room for reference.
11. Hand out the laminated “Process of Paleontology” images one at a time to various students and have them try to place them in order—discussing each step as you go. Ask them to make comparisons between their timeline and the images. Did they forget anything? Did they think of an extra step?