

See Science Everywhere (Lesson 5)

Mary Anning: The Princess of Paleontology

Lesson Overview: Students, in this lesson, will be introduced to an often overlooked figure in history: Mary Anning. Born in England in 1799, Anning was a pioneer in paleontology and an avid fossil collector. She is credited with many monumental geological discoveries; notably the discovery of the first *Ichthyosaurus*. She also uncovered the fossilized remains of the first winged dinosaur, the plesiosaur. Read to your student about her inspiring life in *Dinosaur Lady: The Daring Discoveries of Mary Anning, the First Paleontologist*, and explore the fascinating world of fossils with a hands-on activity.



1. **Pre-reading:**

Vocabulary: (These terms can be found at the end of the picture book.)

- **Fossil**
- **Paleontology**
- **Ammonite**
- **Belemnite**
- **Coprolites**
- **Petricola pholadiformis**

- **Plesiosaurus**
- **Ichthyosaurus**
- **Dinosaur**
- **Jurassic Period**

2. **Read:** Follow this link to read the picture book [*Dinosaur Lady: The Daring Discoveries of Mary Anning, the First Paleontologist*](#) by Linda Skeers.

3. **Watch:** View this brief video clip from *The Smithsonian* about Mary Anning.
[The Princess of Paleontology](#)

4. **Further Exploration:** Explain to your student that during this time in history, the field of paleontology had not been widely studied. Anning's contributions were controversial; and the fact that she was not only a woman, but a poor, uneducated woman did not help gain her high ranking status among professional scientists. She is truly an unsung hero in this scientific field. Follow this link to read more about her [amazing discoveries](#).

Click here to view a collection of Mary's discoveries: [Slideshow](#)

5. **Activity: Making Fossils**

Your student will need the following materials for this hands-on activity:

- Plaster of Paris
- Objects found in nature (leaves, shells, flower petals, feathers, rocks, sticks, etc.)
- Paper plate
- Water
- Paper and pencil

You can also try this step by step method: <https://www.osc.org/diy-fossils/> (If you choose this method, you can follow the steps on that website and then return to Step 5 on the list below.)

1. Tell your student that they are going to make models of fossils. Explain that a model is a representation of something that is real.
2. Begin by helping your student recall the definition of a fossil from the earlier part of the lesson (a fossil is the remains of an animal or plant that has turned to rock over many years.)
3. Show your student this short film clip to help them understand how dinosaur fossils formed: [Dinosaur Fossil Film](#)

4. Tell your students that they will now create their own fossil. Begin by giving your student a paper plate filled with wet plaster of Paris.
5. Have them take the natural objects that they found outside from home and press them into the plaster. Once the impressions have been made, they can remove the objects from the plaster. Remind your student to be careful not to touch the plaster, as it will need time to harden and dry.
6. Then ask your student to write down some initial observations about their fossil. For example, they should consider which parts of the objects made very visible impressions in the plaster, and which ones are harder to see.