

Mary Anning

Lesson Plan

Grade
7-8

NGSS Standards
MS-LS4-1, MS-LS4-2,
LS4.A

21st Century Skills
Critical thinking, problem
solving

Materials
Access to D&D Virtual Reality
Exhibit, slide presentation,,
worksheets

Estimated time
1 period

Difficulty
Low

Vocabulary
dinosaur, ichthyosaur,
plesiosaur, pterosaur, fossil,
extinct, evolution, behavior

Author
Randy Hickman
Mountain View Middle School
Idaho Falls, ID

Program Coordinator
Chloe Doucette
Director of Education
Museum of Idaho

Objective

Become familiar with Mary Anning's discoveries and her contributions to science.

Activity

Teacher reviews the slide presentation with the class. There are questions on some of the slides the teacher can pose to the class.

Students then visit the museum or the virtual reality exhibit and complete the quiz.

Assessment

There is a fifteen question quiz that students hand in at the end of the lesson worth 25 points. All the answers can be found in the slide presentation or the museum exhibit.

Class Discussion

Mary Anning presents a unique opportunity to discuss a number of important topics, including:

The role of women in science - in Victoria times and today - and how it has changed and why.

The importance - and danger - of field work in science and how new discoveries can dramatically change scientific thinking.

How Mary Anning learned to read and write and educate herself to the point she began corresponding with the leading scientists of the day, instructing them on new paleontological discoveries.

Lesson plan based on Darwin & Dinosaurs Virtual Reality Exhibit
More lesson plans at darwindinosaurs.com

Mary Anning

Additional Resources

[Transactions of the Geological Society of London](#), Second Series, Volume III, 1835.

Published Extract from Letter, [Magazine of Natural History, Volume III, New Series](#), 1839, page 605.

Tribute after Mary's death, [The Quarterly Journal of the Geological Society of London](#), Volume IV, Part 1, page xxiv

A Biography, "[Mary Anning \(1799–1847\) of Lyme; 'the greatest fossilist the world ever knew'](#)", Hugh Torrens, 1995.

[Lyme Regis fossil hunter Mary Anning's 'poo' letter auctioned](#), BBC News, 4 August 2020

[maryanningrocks.co.uk](#), a group in the UK that is constructing a statue of Mary Anning in her home town to celebrate her accomplishments.

VR Exhibit

[Darwin & Dinosaurs Virtual Reality Exhibit](#)

my.matterport.com/show/?m=fv3NZ9XP6Zd

Instructions for using the touchscreens in the VR exhibit

When "walking around" in the 3D model click on a touchscreen. A popup will display "Click here for more information." Click on this link. This will open a new tab and let you engage with the interactive. The 3D model will still be open in the first tab.

The touchscreen experiences work on any device with a browser.

Mary Anning

Teacher Answer Key

No.	Question	Answer	Pts.
1	Who was Mary Anning?	She was one of the great fossil hunters of all time.	1
2	What time period did she live?	She lived from 1799-1847.	1
3	Name three of her discoveries.	First ichthyosaur, plesiosaur and pterosaur in England.	3
4	List three of her notable abilities.	Careful observer, meticulous collector, accurate in her descriptions.	3
5	Name three scientists she helped.	William Buckland, Roderick Murchison, Louis Agassiz, Gideon Mantell, Richard Owen.	3
6	What is the scientific name for the pterosaur she discovered?	<i>Dimorphodon macronyx</i> .	1
7	What does the name mean?	Two types of teeth with large claw.	1
8	What does the name ichthyosaur mean?	Fish lizard.	1
9	To what phylum do ammonites belong?	Mollusca.	1

Mary Anning**Teacher Answer Key**

No.	Question	Answer	Pts.
10	Why was the idea of an extinct animal so controversial during her lifetime?	Most people in England believed in the Biblical creation story wherein extinction had no place.	3
11	Why was it dangerous collecting fossils along the coast of Lyme Regis?	Mudslides due to erosion.	1
12	To what geologic era does the plesiosaur belong?	Mesozoic Era.	1
13	Why are plesiosaurs not dinosaurs?	Dinosaurs were terrestrial - they walked on land. Plesiosaurs were marine reptiles.	1
14	Why was the discovery of plesiosaurs so significant?	It forced scientists to wrestle with the idea of extinction and a very old Earth.	1
15	Why was Mary Anning not considered a scientist in her lifetime?	Women could not join scientific societies in Victorian England.	3

Mary Anning

NAME

CLASS

URL my.matterport.com/show/?m=fv3NZ9XP6Zd

No.	Question	Answer	Pts.
1	Who was Mary Anning?		1
2	What time period did she live?		1
3	Name three of her discoveries.		3
4	List three of her notable abilities.		3
5	Name three scientists she helped.		3
6	What is the scientific name for the pterosaur she discovered?		1
7	What does the name mean?		1
8	What does the name ichthyosaur mean?		1
9	To what phylum do ammonites belong?		1

Mary Anning

No.	Question	Answer	Pts.
10	Why was the idea of an extinct animal so controversial during her lifetime?		3
11	Why was it dangerous collecting fossils along the coast of Lyme Regis?		1
12	To what geologic era does the plesiosaur belong?		1
13	Why are plesiosaurs not dinosaurs?		1
14	Why was the discovery of plesiosaurs so significant?		1
15	Why was Mary Anning not considered a scientist in her lifetime?		3