

Guide: An Introduction to Fossils Slideshow

Notes, background information, and discussion prompts

This guide provides teachers with extra background information to accompany the slides in “An Introduction to Fossils.” The slideshow is intended for a wide audience and some of the content may not be suitable for your classroom. Use your own judgement and adapt as needed.

Please note that not all slides have extra information and/or discussion prompts. Photo credits/sources are listed on page 33.

Slide 2 - What is a fossil?

Discussion Prompt: *What do you think of when you hear the word fossil?*

Slides 3 & 4: What is a fossil?

These slides illustrate a range of types of fossils that can be categorized as either body fossils or trace fossils.

Slide 3 Photos:

Top left	A cast and mould of a fossilized bivalve
Top right	<i>Metasequoia</i> leaves
Middle left	An insect fossilized in amber
Bottom left	A theropod footprint
Bottom right	<i>Marrella splendens</i> , a small species of arthropod

Slide 4 Photos:

Top	Mosasaur jaws and teeth
Bottom	Trace fossil; horizontal burrows in siltstone

Slides 5 & 6: Body Fossil or Trace Fossil?

Class Practice Question (slide 5): *Body fossil or trace fossil?*

→ It is a trace fossil. Slide 6 gives further details.

Discussion Prompt (slide 6): *Does the footprint remind you of any other animal?*

→ Theropods are ancestors of birds. If needed, you can bring up a photo of a bird footprint. This is a good place to talk about how fossils can teach us about evolution.

→ Footprints provide many clues about an organism.

Slides 7 & 8: Pseudofossils

We introduce this concept because sometimes inorganic objects get mistaken for real fossils - for example, this blob might look like a trace fossil (feces) or sometimes rounded stones are mistaken for dinosaur eggs!

The fossilized dinosaur eggs shown on slide 8 are from an unknown species of theropod.

Slides 9 & 10: Is This a Fossil?

Class Practice Question (slide 9): *Is this a fossil?*

→ It is not a fossil. Slide 10 gives further details.

Discussion Prompt: *What are some ways you could tell a regular crab shell from a fossilized crab shell?*

When you reveal Slide 10, you can tell students that modern, recently dead creatures are not fossils. Fossils need to be buried for thousands and millions of years and need to be within layers of sediments (or sedimentary rock) called the geological record.

Slides 11 to 15: Body Fossil Preservation

Slide 11 introduces the various types of preservation, described in Slides 12 to 15. If you have the fossil kit available, you can pass around examples to accompany the slide (except for Slide 12 as there is no amber sample).

Slide 13: Pass around a bone fossil or petrified wood

Slide 14: Pass around an ammonite

Slide 15: Pass around a plant fossil