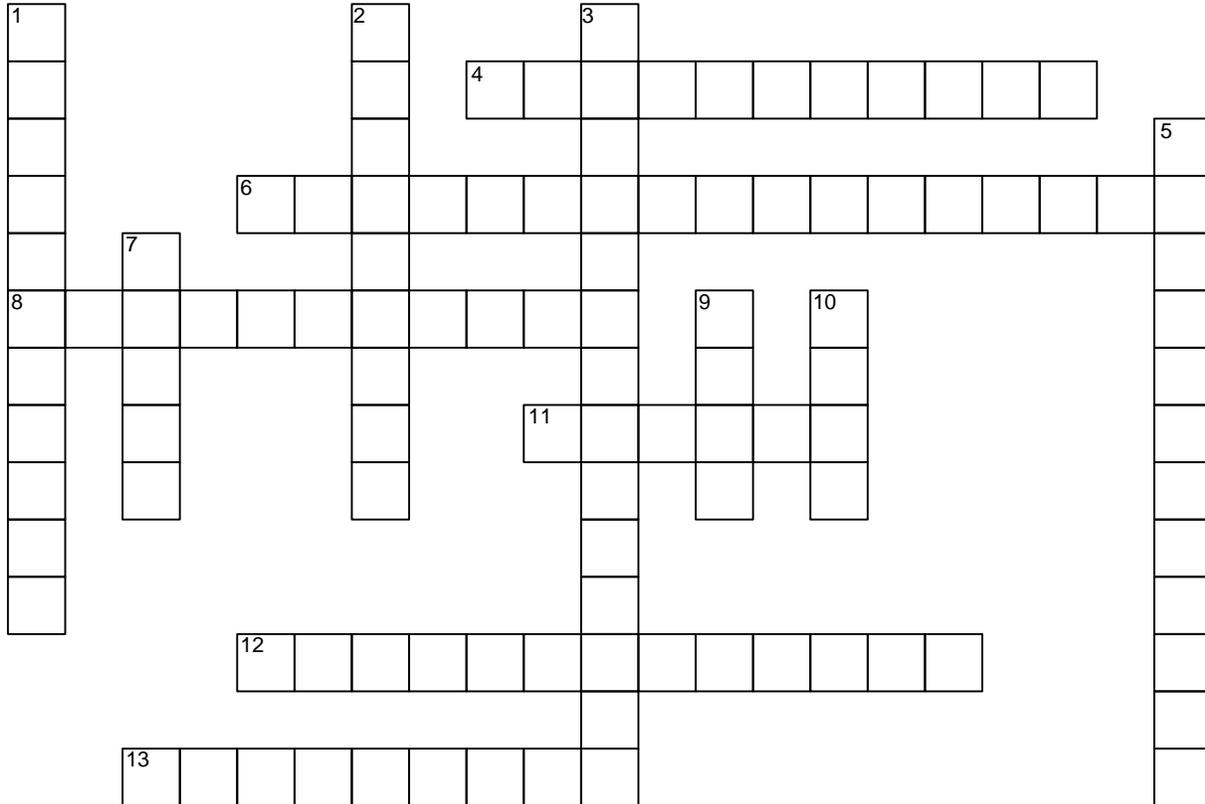




What is a Fossil?



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ACROSS

- 4 the fossil of a footprint or burrow
- 6 bone are filled with liquid minerals which later harden it is called
- 8 the hard shell of an arthropod
- 11 the remains or evidence of any creature that once lived on the Earth.
- 12 organic material is dissolved by the mineral-laden water, each cell is dissolved and replaced by a liquid mineral
- 13 a fossilized imprint of an animals foot

DOWN

- 1 a rock type in which you might find fossils
- 2 fossilized poop
- 3 a person whose job it is to study fossils
- 5 an animal without a backbone
- 7 the internal skeleton of a vertebrate animal
- 9 If a space in the structure is filled with minerals and then the original animal or plant part dissolves it is called...
- 10 the original organism decays, leaving an imprint and an empty space

What Is A Fossil Anyway?

What is a fossil? Simply put, a fossil is the remains or evidence of any creature or plant that once lived on the Earth. There it is simple, straightforward, and hopefully clear. It is the short form answer. No frills. Now let's look at the long answer.

There are quite a few fossil classification systems in use today. Peter Larson and Kristin Donnan in their book, *Bones Rock!*, group them into two categories:

Type I – the remains of a dead animal or plant or the imprint left from the remains.

Type II – something that was made by the animal while it was living that has hardened into stone. (These are called trace fossils.)

Type I includes:

- bones
- teeth
- skin impressions
- hair
- the hardened shell of an ancient invertebrate like a trilobite or an ammonite
- the impression of an animal or plant, even if the actual parts are missing.



Type II includes:

- footprints
- burrows
- coprolite (animal poop)

Type I fossils can be the actual thing that it once was, like a piece of bone or hair or feather. More often, though, the bone material is replaced by different minerals contained in the liquid of the sediments that buried it. What was once bone is now some sort of crystal. This process also takes place with shells, exoskeletons and wood. If the spaces in the bone are filled with liquid minerals which later harden it is called permineralization.

Sometimes the organic material is dissolved by the mineral-laden water. The process happens so slowly that each cell is dissolved and replaced by a particular liquid mineral before it hardens. This is called petrification. In petrification, every detail down to the cellular level is duplicated in the minerals.

Type I can also be molds or casts of the original animal or plant part. If the original organism decays, leaving an imprint and an empty space, it is called an exterior mold or simply a mold. If a space in the structure is filled with minerals and then the original animal or plant part dissolves, it is called a cast.

The question: "What is a fossil?" has a simple answer. But as you can see it can be more complicated than that.

Source: http://www.fossils-facts-and-finds.com/what_is_a_fossil.html

Puzzle	Across: 4 - tracefossil; 6 - permineralization; 8 - exoskeleton; 11 - fossil; 12 - petrification; 13 - footprint
Solution	Down: 1 - sedimentary; 2 - coprolite; 3 - paleontologist; 5 - invertebrate; 7 - bones; 9 - cast; 10 - mold