


## Dig In!

Fearsome **saber-toothed cats**, massive **mammoths**, and the powerful ***Tyrannosaurus rex*** once roamed Earth. But these creatures are now **extinct**. No more of their kind can be found on Earth. **So how do we know they ever existed?** Because they left behind **fossils**. Fossils are the preserved remains or traces of ancient lifeforms. All sorts of living things, from land animals and plants to insects and sea creatures, can form fossils. It is the job of scientists called **paleontologists** to study fossils so we can learn more about the history of life on Earth.



*Tyrannosaurus rex* was both huge and powerful. It grew as long as 40 feet (12 meters) and had jaws strong enough to crush a car.

Saber-toothed cat



Trilobite fossil



## The **BIG** Truth

# Are Dinosaurs and Birds Related?

Many paleontologists do not think dinosaurs completely went extinct. Instead, they believe dinosaurs began evolving into birds about 150 million years ago. When dinosaurs went extinct, those that had already started this change survived. Scientists have discovered fossils with both dinosaur- and birdlike features that have helped them piece together how this change may have happened.

1 Over time, dinosaurs that walked on two legs became smaller and smaller.

2 Some dinosaurs, including *Compsognathus* (komp-SOGH-nay-thus), developed feathers that covered their bodies.

3 Dinosaurs continued to gain birdlike features. *Archaeopteryx* (ar-kee-OP-turr-icks), one of the first true birds, had wings but dinosaur-like teeth, tail, and claws.

4 The evolution continued and modern birds appeared. They had developed beaks and gained the ability to fly. Most paleontologists consider them living dinosaurs!



Archaeopteryx fossil

# 11 Fantastic Fossil Facts!

1



The word "fossil" comes from the Latin word *fossilis*. It means "dug up."

2

Fossils have been found on every continent on Earth.



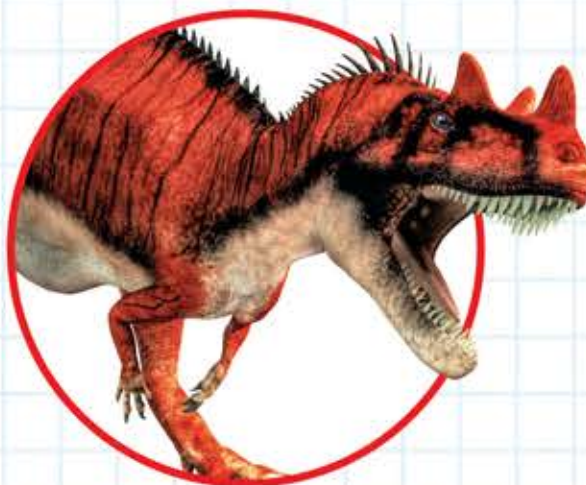
3

Fossil shells have been found on top of Mount Everest, revealing that its rocks once lay beneath an ocean.



4

The word "dinosaur" comes from Greek words that mean "terrible lizard."



5

Preserved remains need to be at least 10,000 years old to be considered a fossil.

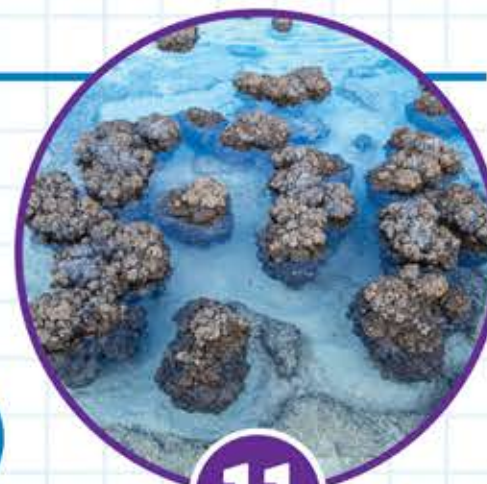


8

If you identify a new type of fossil plant or animal, you get to name it!



The most common fossils are those of underwater creatures with hard shells.



7

X-rays of fossil dinosaur eggs have revealed babies that had been developing inside.



9

David Shiffler was the youngest person to ever find a fossil. When he was three years old, he discovered a piece of a dinosaur eggshell.



10

11

The oldest fossils are stromatolites. These mounds are the remains of large numbers of microbes that grew together.

6 FEET



6

The largest dinosaur fossil footprint is as long as an adult human.