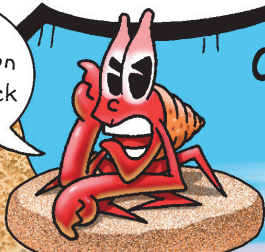


I think this cartoon has hit rock bottom.



CHIPPING AWAY AT

Shortcuts®
by jeff harris

10-QB6

This edition of Shortcuts is sponsored by Diggymon.

How does a paleontologist find information?
She digs it up.

Diggymon, digging for monsters!



Humans have wondered about the origins of fossils since prehistoric times. Greek and Roman scholars made some of the first attempts to explain how it was possible for images or pieces of plants and animals to become imprinted or embedded in stone.

For the past 200 years, scientific detectives called "paleontologists" have literally been "putting the pieces together" in an attempt to understand the mysterious world of fossils.

What did the paleontologist say when he discovered fossilized bread?
It's only rolls in rock, but I like it.

Paleontologists believe that only a tiny fraction of the plants and animals that have lived on earth are preserved as fossils.

For more information on paleontology, go to your local library and check out these books:

"Stories in Stone" by Jo S. Kittinger (Franklin Watts) or "Dinosaurs, The Fossil Hunters" by Dougal Dixon (Davidson Titles, Inc.).

A paleontologist must have an understanding of biology, geology, ecology and archaeology.

Paleontologists must make careful notes about each fossil they discover. Information such as the location and type of rock where the fossil was discovered are important. Fossils that lack this information are almost useless to a paleontologist.

Why don't fossils fall in love?
They have hearts of stone.

The study of prehistoric plants is called "paleobotany."

"Ichnology" is the study of trace fossils such as tracks, trails and droppings.

Scientists from all over the world have combined more than 200 years of observations to create a timeline of life on earth called the "fossil record." The fossil record shows a detailed timeline of the plants and animals that have lived on the earth for the past 700 million years.

Leave No STONE UNTURNED

Most fossils are found in scattered pieces and must put back together like a jigsaw puzzle.

Paleontologists play an important role in the effort to locate underground fossil fuels such as coal, oil and gas.

By studying fossils, paleontologists are able to determine how the earth's climate and geography have changed over time.

Paleontologists use information about living species to give them clues as to how prehistoric animals may have looked or behaved.

Paleontology is one of the few fields of science where many new discoveries are made by amateurs.

Paleontology became an established branch of science sometime during the late 1700s and early 1800s.

BREAKING NEW GROUND

Italian artist and engineer Leonardo da Vinci studied fossils more than 500 years ago.

In the late 1700s, William Smith of England discovered that fossils could be used to identify different layers of rock.

The megalosaurus was the first dinosaur to be named. It was named by William Buckland of England in 1824. The iguanodon was named in 1825 by Gideon Mantell.

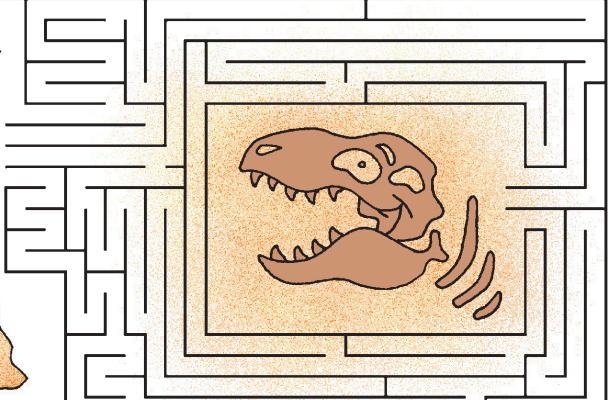
Where do paleontologists get their education?
The school of hard rocks.



Collecting fossils in the field is only the first step. It may take years of work in a laboratory to make a fossil suitable for study or display.

CAN YOU DIG IT?

Can you help this paleontologist discover the fossil?



Aristotle believed fossils were animals that grew in rocks.

Why didn't the fossil like the paleontologist?
The paleontologist was always picking on him.

A paleontologist is a scientist who studies plants and animals that lived during prehistoric times and how they relate to modern species.

THE BONE WARS

In the late 1870s, Edward Cope and Othniel Marsh competed over a site filled with dinosaur bones that was discovered near the Rocky Mountains. Both men employed armed workers, and their bitter rivalry was eventually known as the "bone wars."

In the early days of paleontology, most fossils were discovered by chance.

WORD SEARCH

Can you find the hidden words? Search carefully because some words are backward or diagonal.

DISCOVERY	BONES	FOSSIL
DINOSAUR	ROCKS	TIME
SCIENCE	STONE	PAST
RECORD	EARTH	BOB
SPECIES	LAYER	OLD
STRATA	YEARS	DIG
D I S C O V E R F U N G F		
F L Y S L S T R A T A B O		
A Y E S R A U I E P S O S		
S H A E P A Y C M K T A S		
O U R N S E N E C E O L I		
B U S O R E C O R D N L L		
T O N B I B R I T E E S D		
D I B C P A S T E A R T H		
D I S C O V E R Y S A N D		
D O G S A R E H A P P Y O		

ROCK OF AGES

Paleontologists determine the age of a fossil using two basic methods — relative dating and absolute dating. Relative dating determines a fossil's approximate age by comparing it to known fossils from the fossil record. Absolute dating is a complex system that measures the rate of decay in radioactive isotopes that are found in or near the rocks where a fossil is found.

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