Background Do you think fossils, the remains of ancient plants and animals, are found only in remote locations far away from you? It's true that certain conditions help preserve fossils, but they exist in lots of places, and they haven't all been discovered yet. Not only that, fossils can be found by anyone—maybe even by you!

Setting a Purpose Read the text to learn about fossils, where they come from, and some young people who have found them.

FOSSILS
A Peek Into the Past

Informational Text by Debra Skelton

CLOSE READ Notes

1 Read As you read, collect and cite text evidence.

- Underline text that describes what Jared Post found.
- Circle the text that tells what we can learn from fossilized teeth.

jagged:

engravings:

Big news came out of Fairbanks, Alaska, in the fall of 2007. A ten-year-old boy named Jared Post had made a fantastic find. While walking home from school, Jared noticed a big, **jagged** rock half buried in the ground. Instantly curious, he dug the rock out. He noticed that it had what he called "weird **engravings**" on its underside. Jared felt pretty sure he had found something special—a fossil.

10 The young student's hunch was right. After bringing the toaster-sized object home, Jared and his dad searched the Internet for information. They discovered that the strange "rock" was in fact the tooth of a woolly mammoth, a giant **mammal** that lived during the Ice Age. The Ice Age
15 occurred between 1.6 million and 10,000 years ago. In other words, that tooth was old!

Traces of the Past

Today, mammoths are extinct, meaning they no longer exist. Scientists can learn about them only by studying whatever remains they can find, such as bones, tusks, and
20 teeth.

Animal teeth give a lot of information. By studying teeth, scientists can make a good guess about an animal's diet. Carnivores, or meat-eating animals, have sharp canine teeth to stab and hold on to prey. Herbivores are plant
25 eaters, so they have large molars for chewing plants.

CLOSE READ Notes

mammal:

2 Reread Reread lines 1–16. Describe the object Jared discovered and what he found out about it.

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CLOSE READ
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3 Read As you read, collect and cite text evidence.

- Circle where mammoth bones and teeth are mostly found and the reason they are found there.
- Underline details about the size and appearance of woolly mammoths.

roamed:

Although mammoths **roamed** throughout much of North America, Europe, Asia, and Africa, their bones and teeth are found mainly in areas with very cold weather. Any ideas why? It's because bones and teeth buried in frozen ground are less likely to be damaged. It's not surprising that Jared's mammoth tooth lasted 10,000 years or more. In his hometown of Fairbanks, the temperature stays below freezing more than half the year!

Imagine a Woolly Mammoth!

For about two million years, woolly mammoths roamed the northern plains of Europe, North America, and Asia. Then, about 10,000 years ago, they disappeared, leaving only fossilized clues to their presence.

ancestors:

Thought to be early **ancestors** of today's elephants, these giant beasts were covered in dense, shaggy hair. A thick layer of fat protected them from the cold. Teeth such as the one Jared discovered, probably a molar, indicates they were grass and leaf eaters. They used their long curving tusks, scientists believe, to shovel snow off the ground to reach buried plants.

CLOSE READ
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Mammoths weighed about six to eight tons and stood about nine feet tall. Imagine an animal standing about as high as a one-story house and weighing as much as three or four full-sized pickup trucks.

"Just thinking about mammoths walking around my neighborhood 10,000 years ago is amazing!" Jared Post told reporters.

Fossils have given us most of the clues about the woolly mammoth.

4 Reread Reread lines 35–52. Describe what woolly mammoths looked like.

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CLOSE READ
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5 Read As you read, collect and cite text evidence.

- Circle the names of people who discovered mammoth teeth in 2007.
- Underline text that describes what Mary Anning found and when.

A Very Good Year

Jared wasn't the only young discoverer to come across a mammoth's tooth in 2007. It was a great year for finds! In February, 16-year-old Sierra Sarti-Sweeney found a tooth in Tampa, Florida. And in November, little Kaleb Kidd discovered a mammoth tooth in La Crosse, Wisconsin. At three years old, Kaleb might be the youngest fossil finder ever!

One Girl's Remarkable Finds

Another super-successful young fossil hunter was Mary Anning, who was born on the south coast of England. Mary got quite a head start on recent fossil finders. She discovered the **skeleton** of a giant sea creature when she was about eleven years old. That was in 1810!

skeleton:

Scientists had never seen anything like the bones Mary found. They named it *ichthyosaurus* (ick thee oh SOR us), from the Greek words for fish and lizard. But it was not a fish at all. Later research proved it to be the fossilized body of a giant sea **reptile.**

reptile:

Mary got credit for finding the very first ichthyosaur fossil. But she discovered others as well. In 1821, she found two—one five feet long and the other almost twenty feet long. These discoveries started a fossil craze in England.

CLOSE READ
Notes

The coastal area where Mary lived was, and still is, full of fossils. Most of these are the remains of animals that lived in the seas between 206 and 144 million years ago, a time known as the Jurassic period. The ichthyosaurus was from this time, when dinosaurs roamed the earth. But Mary was also the first to discover the remains of another Jurassic sea creature.

This skeleton, found in 1823, was equally large and strange. The fossil measured nine feet long and six feet wide. Compared to its giant body, its head was tiny—not quite five inches long! The creature was named Plesiosaurus, meaning "almost like a lizard."

Plesiosaurus fossil

6 **Reread** Reread lines 66–80. Why do you think Mary's finds "started a fossil craze in England"?

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CLOSE READ
Notes

7 Read As you read, collect and cite text evidence.

- Circle the things Mary learned from her father.
- Underline key information about fossils—what they are and why they're important.

dedication:

Mary learned her skills as a fossil hunter from her father. He showed her how to increase the value of her finds by cleaning them with a needle and a small brush, then polishing them. After her father died, Mary's sale of her fossil finds helped keep the family going. Her **dedication** to this work made her famous as an expert on fossils.

Mary Anning's fossils gave scientists new knowledge about the world.

Because she was only a young girl, and not a trained scientist, Mary's knowledge of fossils was almost unbelievable to people of her time. One person wrote that Mary had the knowledge to easily talk with "professors and other clever men on the subject, and they all [admit] she understands more of the science than anyone else in the kingdom."

No wonder Mary Anning has been called "the greatest fossilist the world ever knew."

CLOSE READ
Notes

Nature's Memory Keepers

A fossil is the remains of a plant or an animal that lived a long time ago.

The word "fossil" was first used in the 1500s. It comes from a Latin word that means "dug up from the ground." The most common kind of fossil is an imprint, or outline, of the plant or animal in a rock. These kinds of fossils are formed in much the same way as a handprint in clay. Other kinds of fossils include animal bones and footprints , or even a trail left by a worm.

Fossils might be called nature's memory keepers because they show what once was. They are little—or sometimes big—pieces of history. Because fossils give us clues about extinct plants and animals, they help us understand what the world was like in the distant past.

8 Reread and Discuss Reread "Nature's Memory Keepers." Discuss what this feature adds to the main text. How does the background image relate to the feature?

SHORT RESPONSE

Cite Text Evidence Summarize the main topics covered in this text. Why do you think the author started with Jared's story?

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