



Interdisciplinary Challenge

Explain the Pyramids of Ancient Egypt

You are a tour guide and Egyptologist—an expert on ancient Egypt. Your specialty is the age of pyramid building, about 4,700 to 4,200 years ago (c. 2686–2160 B.C.). Pyramids, large and small, were built as tombs for the pharaohs of the Old Kingdom and members of their families. The most famous are the three pyramids at Giza, near Cairo, where you work. In the course of your work, tourists come to you with questions about the pyramids. You want to find interesting ways to share your knowledge with them.

COOPERATIVE LEARNING On these pages are challenges you will meet while dealing with visitors to the pyramids. Working with a small group, choose one challenge to solve. Divide the work among group members. Look for helpful information in the Data File. Keep in mind that you will present your solution to the class.

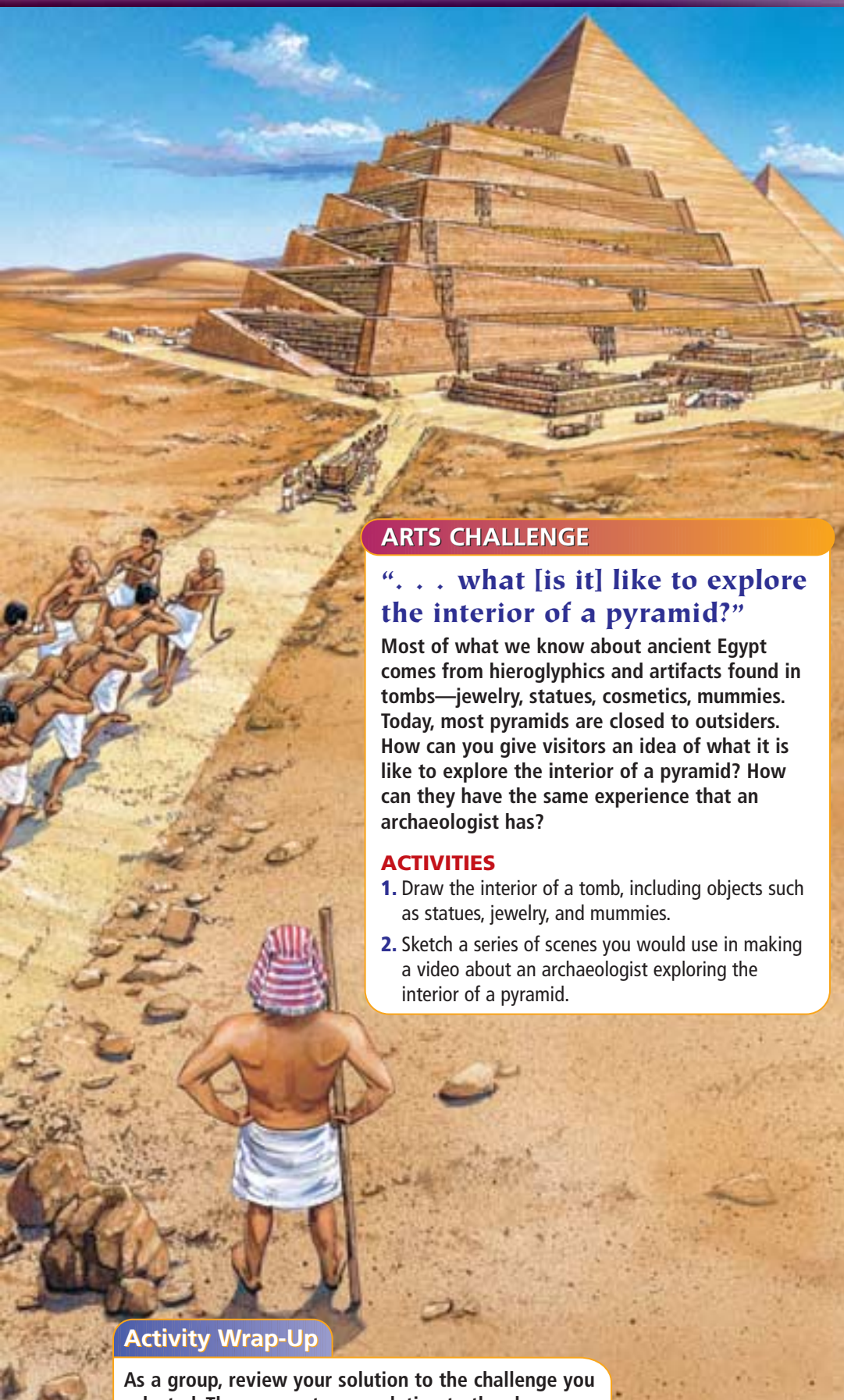
MATH CHALLENGE

“. . . the Great Pyramid of Khufu was the world's tallest structure.”

The three pyramids at Giza were built for Khufu, his son Khafre, and his grandson Menkure. For more than 4,300 years, the Great Pyramid of Khufu was the world's tallest structure. Khafre's pyramid is almost as big. How can you explain these huge structures to your visitors? Choose one of these options. Look in the Data File for information.

ACTIVITIES

1. Make an accurate drawing of the Great Pyramid of Khufu on graph paper, using the measurements given. Use blocks or clay to build a scale model.
2. How does the present height of the Great Pyramid compare with its original height? How does its height compare with the heights of the pyramids of Khafre and Menkure? Express your answers as percentages.



ARTS CHALLENGE

“... what [is it] like to explore the interior of a pyramid?”

Most of what we know about ancient Egypt comes from hieroglyphics and artifacts found in tombs—jewelry, statues, cosmetics, mummies. Today, most pyramids are closed to outsiders. How can you give visitors an idea of what it is like to explore the interior of a pyramid? How can they have the same experience that an archaeologist has?

ACTIVITIES

1. Draw the interior of a tomb, including objects such as statues, jewelry, and mummies.
2. Sketch a series of scenes you would use in making a video about an archaeologist exploring the interior of a pyramid.

Activity Wrap-Up

As a group, review your solution to the challenge you selected. Then present your solution to the class.

DATA FILE

THE PYRAMIDS OF EGYPT

- The pyramids at Giza were one of the **Seven Wonders of the Ancient World**. The oldest of all the wonders, they are the only ones that still stand today.
- Builders used mainly **limestone** and **granite blocks**. Originally, the pyramids were faced with smooth, white limestone. Vandals have stripped off most of this surface stone.
- Building the **Great Pyramid** took about 20 years. Ancient historians said that it took 100,000 workers. Archaeologists today, however, think that there were **20,000 to 30,000 workers**. The workers were probably not slaves, but farmers and villagers who worked in exchange for food and the chance to serve their god-king.

GREAT PYRAMID OF KHUFU

- Oldest and largest of pyramids at Giza, built about **4,500 years ago**.
- Square base: length of each side about **756 feet**.
- Original height: **481 feet**; now about 451 feet.
- Covers about **13 acres**—about seven city blocks.
- Contains about **2.3 million blocks** of stone, each weighing about 2.5 tons.

PYRAMID OF KHAFRE

- Square base: length of each side about **708 feet**.
- Original height: **471 feet**.
- Covers about **11.5 acres**.

PYRAMID OF MENKURE

- Square base: length of each side about **356.5 feet**.
- Original height: **218 feet**.
- Covers about **2.9 acres**.

To learn more about the pyramids, go to

