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GRADE 7
RH.6-8.10

Getting Water from the Nile

Ancient Egypt has often been called the "gift of the Nile." What a gift it is! The important river provided food, water, and rich soil for the people along its banks. The Nile River became essential to the civilizations that have thrived for centuries along the river and have relied on farming as a means for obtaining food. It is no wonder that ancient Egyptians learned to harness the Nile, developing many ingenious ways to irrigate the land that surrounded the world's longest river.

Reservoirs

What do you do when floodwaters get too high? That was a problem that Egyptians sometimes had to worry about during the yearly Nile River flooding. Some crafty Egyptian engineers came up with a way to manage this problem about 4,000 years ago. They realized that by widening and then deepening a lake near the Nile, sometimes called Lake Moeris, excess floodwater might be able to be stored in the lake. It was an ancient version of modern reservoirs used to store water. The water then could be used to irrigate crops at a later time.

Fun Fact: Lake Moeris has been partially filled over the many centuries that have passed since it was first used as a reservoir. What remains is now known as Lake Qārān.

Egyptian pharaohs learned to use the nilometers for a different purpose. They used it to base their tax scale for the people living along the Nile. Water reaching a certain height meant it would be a successful farming year. That meant people would have to pay higher taxes.

The Nilometer

Ancient Egyptians knew that the Nile River flooded in a predictable pattern. However, how much it flooded could mean the difference between a great harvest and a huge disaster. To help determine the type of flood that might occur, Egyptians developed **nilometers** around 3500 BCE. Made out of limestone, the stone markers were like early meter sticks, placed in wells that would fill with water. Steps led into these wells to help people take measurements of rising waters as the Nile flooded. If water reached a certain level, then government officials could predict just how good the harvest might be. If the water got too high, then the floods might destroy farmland. What if the water was too low? Officials might be able to predict a drought, indicating that they might need to take drastic measures to save food.

Glossary

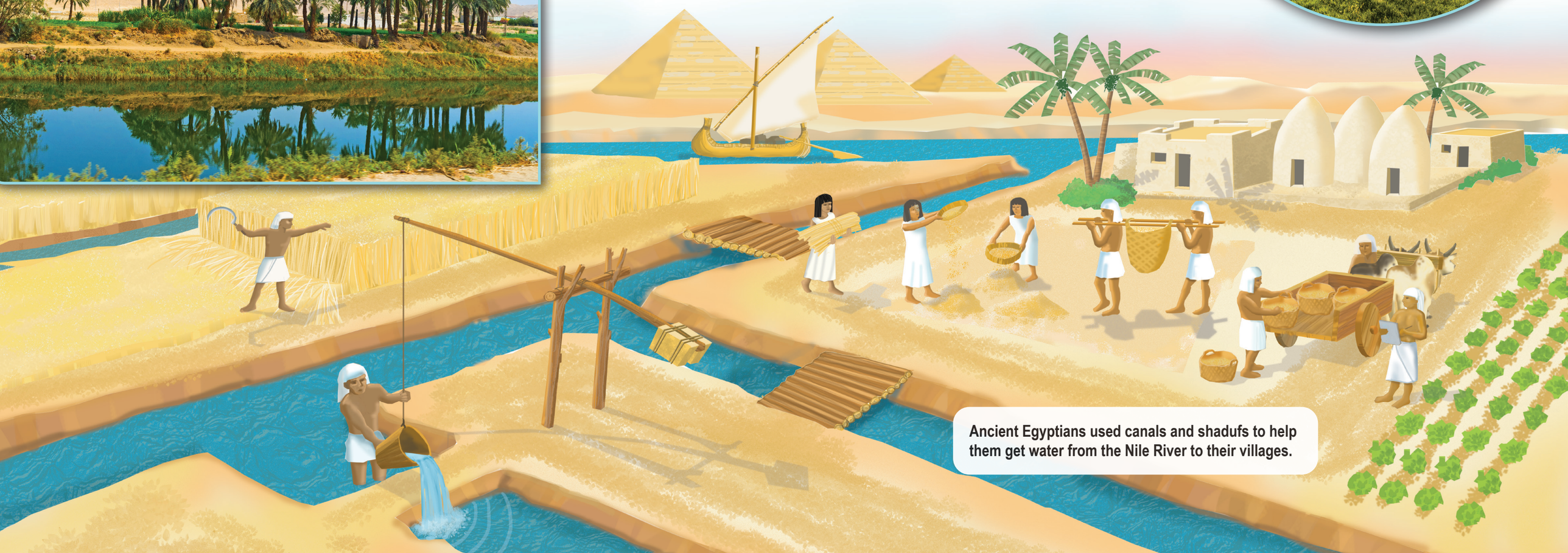
century: 100 years
harvest: time when people gather crops
pharaoh: an Egyptian ruler, like a king
pivot: a point that something moves around

Canals and Dams

Egyptians first tried to control the floodwaters of the Nile by building a series of canals and dams thousands of years ago. Canals are artificial paths that allow water to travel from one place to another, while dams are the barriers that stop of the flow of water. Egyptians built dams at right angles to the Nile River so that when the floodwaters rose, dams could be used to force water into canals. These canals would often lead to farmland, where the water could be used to irrigate crops. Each year the canals would be dredged to ensure they were deep and wide enough to send water to the farmland that needed it. Egypt had about 80 canals, with some as long as 100 miles!

Shaduf

Sometimes water had to be raised from lower ground to higher ground, but how can water be moved upward? Ancient Egyptians solved that problem by using a device known as a shaduf to transport water. A shaduf is a long pole that has a bucket with a long rope tied to it on one end and a weight tied to it on the other end. The pole is placed on a mount that looks like a ladder but acts as a pivot. A person pulls on the rope to lower the bucket into the water and then uses the weight to raise the bucket and move the pole. The pivot allows the shaduf to move in a complete circle, which makes transporting water from lower ground to higher ground easy. Multiple shadufs can be placed near each other to help water travel great distances or heights.



Ancient Egyptians used canals and shadufs to help them get water from the Nile River to their villages.