

Aqueducts

Instructions:

Read the text, then answer the questions!



A large system for carrying water from one place to another is called an aqueduct. Aqueducts may supply water to cities or to farms for **irrigation**. The water may be carried underground through a tunnel or pipe, at ground level through a **canal**, or over the ground on a **bridge**.

People built aqueducts in ancient Greece, Babylonia, Persia (now Iran), and India. Many of these aqueducts were tunnels dug into hillsides. Early aqueducts depended on gravity to create the flow of water. The water source had to be higher than the destination so the water could flow downhill all the way there. Variations in the height of the land, such as mountains and valleys, caused problems.

To move water across valleys people sometimes built aqueducts in the form of arched bridges with two or three layers of arches on top of each other. The water flowed through a channel in the top of the uppermost layer. The ancient Assyrians used 2 million stone blocks to build an aqueduct to carry water across a valley to their capital, Nineveh.

Ancient Rome had a complex system of 11 aqueducts built from 312 BCE to 226 CE. The system used both bridges and underground pipes. Some of the aqueducts are still used today. The Romans also built aqueducts in other parts of their empire.

Most engineers today use powerful pumps to force water upward when necessary. This allows modern engineers to design aqueducts in ways that ancient engineers could not. Instead of building a bridge over a valley, for example, modern engineers can simply run pipes down one side of the valley and up the other. Pumps powered by steam were first used in the late 1700s. Later pumps were powered by electricity.

1. What is the main purpose of an aqueduct?

- A) To carry water from one place to another
- B) To build bridges
- C) To create tunnels for trains
- D) To grow crops

2. How did ancient people make water flow in aqueducts?

- A) By using pumps
- B) By making the water source higher than the destination
- C) By using electricity
- D) By building water wheels

3. What is one way ancient engineers solved the problem of moving water across valleys?

- A) They built tall buildings
- B) They created arched bridges
- C) They dug deeper tunnels
- D) They used boats

4. Why are modern aqueducts different from ancient ones?

- A) They are made of wood
- B) They use powerful pumps to move water
- C) They are only built underground
- D) They do not carry water

5. Which ancient civilization built a complex system of aqueducts that are still used today?

- A) The Egyptians
- B) The Romans
- C) The Chinese
- D) The Mayans

6. What was a challenge for ancient engineers when building aqueducts?

- A) Finding enough workers
- B) The height of the land, like mountains and valleys
- C) Getting permission from the king
- D) Making the aqueducts look pretty