

# MAYA WATER MANAGEMENT

The land and climate of Central America limited the amount of water that was available to the Maya. To help manage this essential resource, the Maya constructed a sophisticated system of dams, reservoirs, and canals.

Answer the questions below to learn even more about Maya water management.

- The Maya built a large dam in the Maya city of Tikal that measured 260 feet in length and 33 feet in height. It held about 20,000,000 gallons of water. If 80,000 people lived in Tikal, how much water from the dam was available for each person?
  - 250 gallons
  - 400 gallons
  - 2,000 gallons
  - 2,500 gallons
- In the Maya city of Palenque, a 200-foot-long tunnel was built into a steep hill. Water from a spring flowed into the top of the tunnel. The tunnel was 10 feet wide at the top but only half a foot wide at the bottom. The shape of the tunnel forced the water to shoot 20 feet into the air out of the bottom! What is this height in yards?
  - 20 yards
  - $7\frac{1}{3}$  yards
  - $6\frac{2}{3}$  yards
  - 60 yards
- Maize was a major crop grown by the Maya and it needs a total of about 22 inches of water for healthy growth. If it takes 27,000 gallons of water to cover 1 acre of land with 1 inch of water, how many gallons of water are needed to grow 1 acre of maize?
  - 540,000 gallons
  - 59,400 gallons
  - 270,000 gallons
  - 594,000 gallons
- In the wetlands, the Maya dug a system of canals and piled up the soil to build small rectangular islands called *chinampas*. This made a grid of land areas where the Maya could plant crops. Chinampas measured about 7 to 13 feet wide and 70 to 130 feet long. Which of the following chinampas would have the greatest area?
  - 7 feet wide, 120 feet long
  - 8 feet wide, 90 feet long
  - 12 feet wide, 80 feet long
  - 11 feet wide, 70 feet long

**BONUS:** The Maya created canals to transport water supplies to towns and fields. They had to dig the canals so the water would not overflow. If a canal is 267.36 feet long and 2 feet wide, at least how deep would it have to be to hold 10,000 gallons of water? (Note: 1 gallon of water = 0.13368 cubic feet)

- At least 1 foot
- At least 1.5 feet
- At least 2 feet
- At least 2.5 feet

