Explore More—Mesoamerican Achievements

Directions: *Listen to your teacher talk about the achievements in astronomy and mathematics of a group of Mesoamerican people, the Maya. You will hear about the development of the calendar, Maya knowledge of seasonal changes, and Maya agricultural systems. Refer to the world map in your* Explore Geography Picture Dictionary *to locate Mesoamerica. Circle any words in the text that you don't understand. Underline or highlight important ideas in the text. Write notes in the margins to help you understand key points. Then answer the questions in your own words.*

The Maya in Mesoamerica

Mesoamerica is the name that we use to describe a geographical and cultural area that extends from present-day central Mexico to northern Costa Rica.

> *Point to this area on your map.*

The area where the Maya civilization developed is part of Mesoamerica. The ancestors of the Maya arrived in Mesoamerica around 9000 B.C.

> *Point to this date on your class time line.*

At first, they were hunters and gatherers. However, when they learned how to grow their own food, they could stay in one place all year round.

Seasonal Changes and Agricultural Systems

Around 2500 B.C., the Maya started to farm.

> *Point to this date on your class time line.*

They began to depend on farming for their food. The Maya learned to understand seasonal changes. By knowing when to plant crops and when to harvest, Maya farmers made the best use of their land and grew bigger crops. In late fall, Maya farmers cut down trees and brush. When the cut trees and brush were dry, the farmers burned them. Then they cleared the land and planted the crops. Between May and September, farmers weeded the fields. They harvested the crops in late fall. Then the planting season started over again. Knowing about seasonal changes helped Maya farmers grow more crops. It also helped them develop agricultural systems.

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One agricultural system the Maya used is called "slash and burn agriculture." Maya farmers would select an area of land in the rain forest, cut down the plants and trees growing there, and then burn them. After everything on the land was burnt, only ashes remained. The ashes made the soil rich and better for growing food. The Maya grew maize, beans, squash, and chile peppers. Maize became the most important crop. It was a dependable type of food to grow because it could be stored for times when food was scarce.

Maya Achievements in Astronomy and Mathematics

The Maya had their own numbering system. Unlike our system which is based on the number "10," the Maya based their system on the number "20." Traders and merchants used numbers to conduct business. Numbers were also very important to priests, who studied the movements of the stars and the planets to tell the future. This is how they learned so much about astronomy. Priests used various calendars to plan everyday life, to find out what days were lucky or unlucky, and to determine how to please the gods.

One Maya calendar was based on how long it takes the earth to circle the sun. This calendar was 365-days long. There were 18 months in this calendar. Each month was 20 days long. The five extra days at the end of the year were thought to be unlucky. The Maya also recorded dates by using a system they created called the "Long Count." The date the Maya believed marked the beginning of creation, about 5,000 years ago, was the starting point for calculating the dates of later events. ❖

YOUR TURN!

Write your answers to the following questions.

1. What is Mesoamerica?

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2. Who were the Maya?

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3. How did the Maya's knowledge of seasonal changes lead to the development of agricultural systems?

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4. Name the Maya achievements in astronomy and mathematics.

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Questions for further discussion:
- Explain the cause, effect, sequence, and correlation in the development of the Maya's agricultural systems.
- What were the short-term and long-term causal relations?
- What were the sources of historical continuity?
- How did the combination of ideas and events explain the emergence of new patterns?
- Using your textbook, find information about Maya achievements in astronomy and mathematics. Distinguish relevant from irrelevant information, essential from incidental information, and verifiable from unverifiable information.
- Discuss the sources of historical continuity in Maya country. How did the combination of ideas and events explain the emergence of new patterns in farming?
- What would you like to know more about in terms of Maya agricultural systems? Frame questions that you can answer by historical study and research. Conduct this research and discuss your findings.