



Corn, Beans, and Chocolate

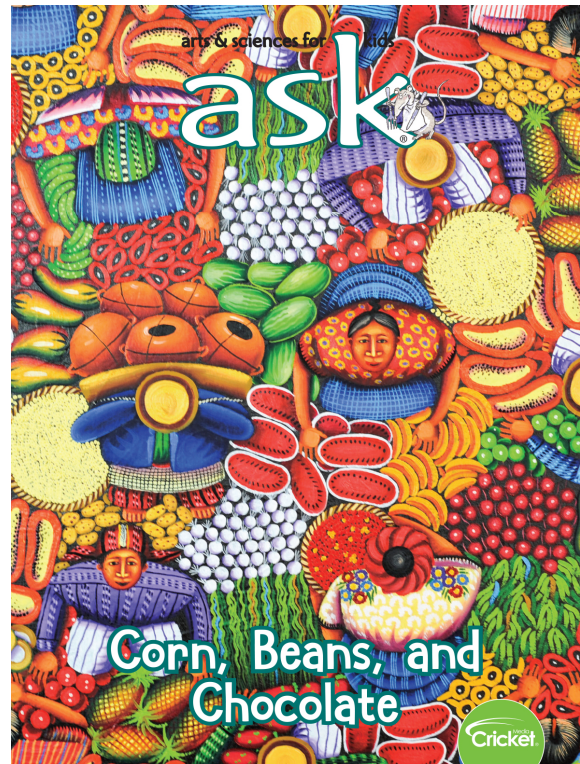
The Yucatan peninsula is an area of land in southeastern Mexico that separates the Caribbean Sea from the Gulf of Mexico. It was in these Mesoamerican lowlands that the Mayan civilization rose and thrived. This issue of ASK studies the land, the food, the people, and the demise of one of the most advanced indigenous societies ever to exist.

CONVERSATION QUESTION

How did ancient Yucatan civilizations keep themselves well fed?

TEACHING OBJECTIVES

- Students will learn how the ancient Mayan civilization provided food for its people.
- Students will learn about the history of cacao, the magic bean tree of Central America.
- Students will learn about leading theories regarding the abandonment of Mayan cities.
- Students will obtain specific information from a science-based text.
- Students will demonstrate the ability to properly sequence and explain a studied process.
- Students will compare and contrast several theories concerning the fall of the Mayan civilization.
- Students will study the methods by which scientists gather information about past civilizations.
- Students will utilize whole numbers and fractions to scale given measurements.
- Students will create a comic strip depicting one of the speculations regarding "the ruins in the jungle."



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

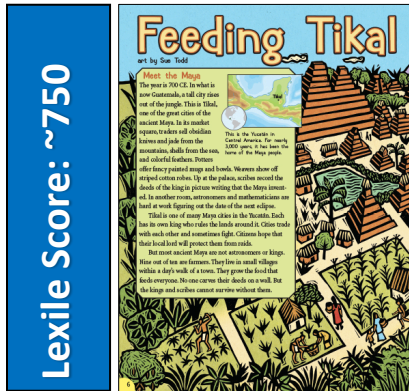
SELECTIONS

- **Feeding Tikal**
Expository Nonfiction, ~750L
- **A Cool Sip of Cocoa**
Expository Nonfiction, ~950L
- **The Ruins in the Jungle**
Expository Nonfiction, ~650L

Feeding Tikal

pp. 6–11, Expository Nonfiction

Take a journey back in time to the year 700 CE. One of the greatest cities of the ancient Maya rises up out of the jungle. Learn how a combination of advanced ideas in farming and hard-working citizens ensured that no one went hungry.



RESOURCES

- Mayan Mealtime

OBJECTIVES

- Students will learn how the ancient Maya civilization provided food for its people.
- Students will obtain specific information from a science-based text.
- Students will study the methods by which scientists gather information about past civilizations.

KEY VOCABULARY

- obsidian (p. 6)** a natural glass formed by volcanoes
- scribes (p. 6)** people employed to provide a written account of deeds before printing was invented
- Yucatan (p. 6)** a peninsula in Central America between the Gulf of Mexico and the Caribbean; the center of the Maya civilization

ENGAGE

Conversation Question: How did ancient Yucatan civilizations keep themselves well fed?

Ask students the steps that they took to have lunch today. This may be as simple as: 1. Acquired money or lunch card. 2. Went on lunch line. 3. Selected meal. Brainstorm what steps people in ancient civilizations had to take in order to eat a meal. Introduce the article, “Feeding Tikal,” and begin reading.

INTRODUCE VOCABULARY

Post and discuss the key terms. Guide students to notice that one word refers to the location of the Maya civilization (Yucatan), one word refers to a resource (obsidian), and one word refers to an occupation (scribe). As a post-reading activity, have students add other relevant words from the article to each category.

READ & DISCUSS

Read aloud the following questions prior to reading the text. Advise the class to note where in the article these answers are found. Have students meet in small groups to discuss responses to the questions.

- Describe the scene of the market square in Tikal in 700 CE.
- What is the occupation of most of the citizens of Tikal?
- How did the Maya make farms in an area that is naturally covered by rainforests?
- What vegetables do the Maya grow? What animals do they hunt?
- How did the Maya solve their problem of not having enough farmable land?

CONCEPT/SKILL FOCUS: Obtaining Information

INSTRUCT: This article presents the reader with an abundance of detailed information regarding the hunting, gathering, growing, and storage of food in ancient Maya. Distribute the graphic organizer, *Mayan Mealtime*, and allow students to work with a partner to consult the text and collect pertinent facts to complete the graphic organizer.

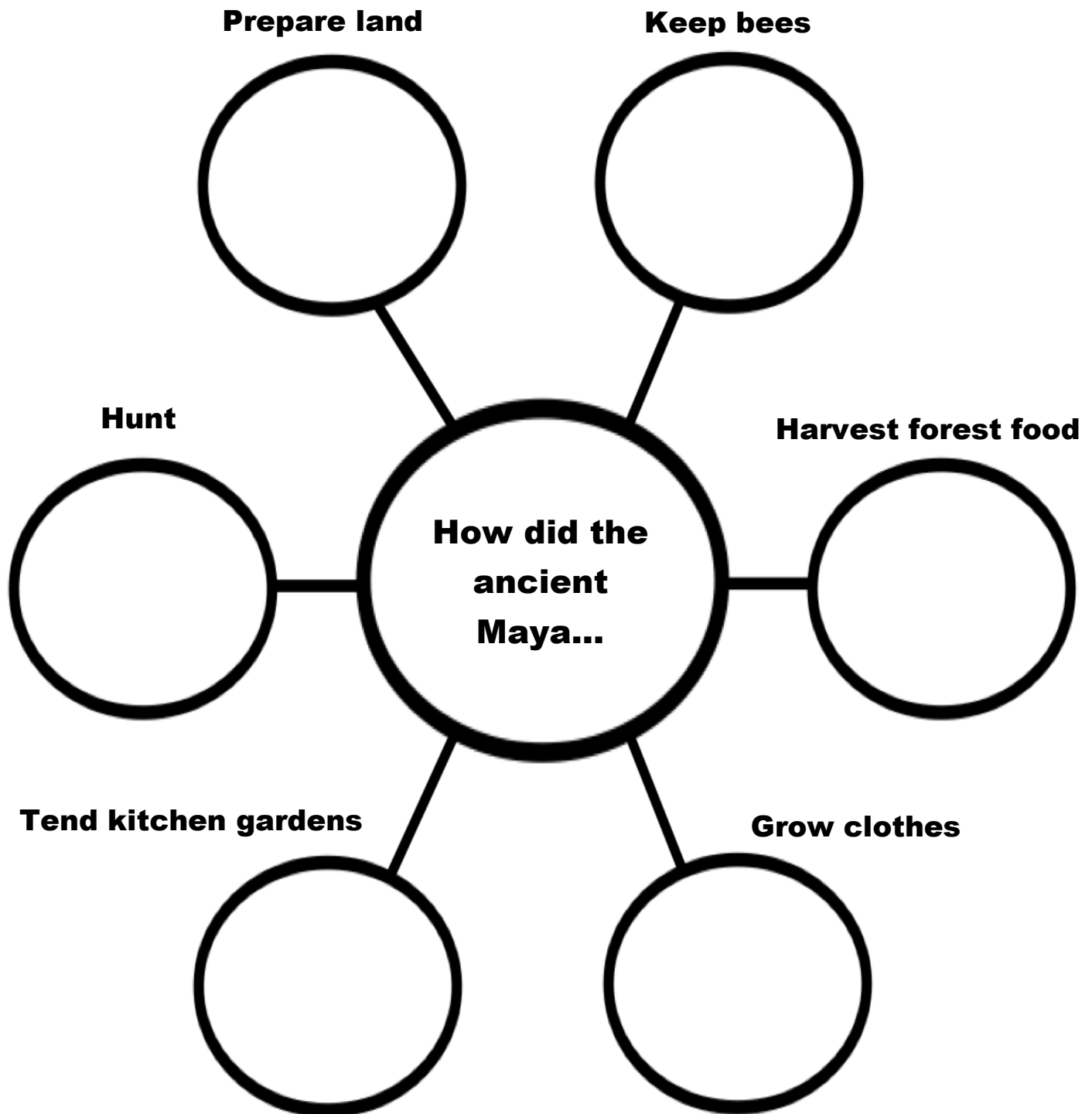
ASSESS: Collect the *Mayan Mealtime* worksheet from all students when finished to evaluate their ability to obtain accurate information.

EXTEND

Social Studies Have students peruse the illustrations throughout the article. Remind the students that although we have no photographic evidence of ancient civilizations, we still have been able to build a comprehensive picture of their existence. Consider these questions for research: How is this possible? What strategies/methods are used? Has any concrete proof of their existence been discovered?

Mayan Mealtime

Use information from the article, "Feeding Tikal," to record the necessary information.



Ask® Teacher Guide: February 2020

A Cool Sip of Cocoa

pp. 18–21, Expository Nonfiction

Grown deep in the shady forests of Central America, cacao pods grow from the trunk of the cacao tree. The Maya believed that cocoa was the drink of the gods. Do you?



Lexile Score: ~950

RESOURCES

- Crazy for Cocoa

OBJECTIVES

- Students will learn about the history of cacao, the magic bean tree of Central America.
- Students will demonstrate the ability to properly sequence and explain a studied process.
- Students will utilize whole numbers and fractions to scale given measurements.

KEY VOCABULARY

- **fermented** (p. 19) when the sugar in a product breaks down into a simpler substance
- **groves** (p. 19) small orchards or groups of trees
- **nibs** (p. 21) shelled and crushed cacao beans
- **pod** (p. 18) a two-valved vessel in some plants that hold the seeds

ENGAGE

Conversation Question: How did ancient Yucatan civilizations keep themselves well fed?

If possible, display cacao products in various forms. Create a K-W-L (know, want to know, learned) chart and pose the question, “How are cacao products made?” List student responses. Return to the chart after reading the article and complete the last (“learned”) column.

INTRODUCE VOCABULARY

Introduce the key terms. Divide the class into groups of four and assign each child in the group one of the words. Instruct them to define and record the meaning of the term. They will each be responsible for teaching their word to the others in the group. Upon completion, students should have recorded accurate definitions for all four words.

READ & DISCUSS

Pose the following questions to the students to facilitate meaningful discussion following the reading of the article.

- What does a cacao tree look like? Using the description in the article, draw a picture of a cacao grove.
- How was the Maya cocoa different from the hot chocolate that we drink today?
- Why was cocoa a special drink? When was it drunk?
- Why might someone have made fake cacao beans out of clay?
- How were these tasty beans turned into solid chocolate candy?

CONCEPT/SKILL FOCUS: Sequence & Explanation

INSTRUCT: Review the information on page 19, specifically the text boxes. Elicit from the students that there is a specific sequence of events that lead from the cacao tree to cocoa. Distribute the *Crazy for Cocoa* graphic organizer and instruct the class to refer back to the article and to properly sequence and explain each step.

ASSESS: Circulate as students are working on the graphic organizer and discuss the information in the article. Direct students having difficulty with the sequencing process to reread the text with a partner. Collect their completed work to further evaluate understanding of this skill.

EXTEND

Mathematics Instruct students to study the recipe on page 21 for “Ancient Maya Cocoa Drink.” Have them consider the ingredients and the amounts and guide them to understand that this recipe is for one serving of the beverage. Discuss the mathematical term “scaling.” Challenge students to rewrite the recipe so that it could serve 2, 10, 13, and 25 people.

Crazy for Cocoa

Use information from the article, "Crazy for Cocoa," to put the steps of creating usable cocoa in the correct order. Then, write a few sentences and draw a simple sketch that explain what occurs during each step.

Spread seeds in the sun	Remove the seed from shell	Split open cacao pods	Pile seeds & pulp under leaves	Roast over a fire
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Steps	Explanation
STEP 1 <hr/>	
STEP 2 <hr/>	
STEP 3 <hr/>	
STEP 4 <hr/>	
STEP 5 <hr/>	

It's ready to use...Enjoy!

The Ruins in the Jungle

pp. 26–28, Expository Nonfiction

Mayan civilization is considered one of the most advanced cultures of our ancient past. Why was this magnificent Mesoamerican city literally left crumbling?



RESOURCES

- A Fallen City

OBJECTIVES

- Students will learn leading theories regarding the abandonment of Mayan cities.
- Students will compare and contrast several theories concerning the fall of Mayan civilization.
- Students will create a comic strip depicting one of the speculations regarding “the ruins in the jungle.”

KEY VOCABULARY

- **abandoned** (p. 26) left to fall into a state of disuse
- **reservoirs** (p. 27) places or containers where large amounts of water get stored
- **territory** (p. 28) an area of land under the control of a ruler or state

ENGAGE

Conversation Question: How did the ancient Yucatan civilizations keep themselves well fed?

Post the following quote from page 28 of the article. “It’s important to protect the environment, so things don’t get out of balance.”

Encourage students to share their reactions to this statement. Students will most likely discuss its relevancy to modern times. Challenge them to consider the past, as well.

INTRODUCE VOCABULARY

Post the key vocabulary terms and definitions on the board. Have the students use resources to define them and then display the given definitions. Reveal the title of the article and have the class predict what topic “The Ruins in the Jungle” could be referring to. Read the article and then revisit predictions.

READ & DISCUSS

Preview the questions with the students. Read the article aloud, pausing to discuss answers to the questions below as they are revealed.

- What methods did scientists use to discover what the climate was like in ancient Maya?
- How can scientists tell that between 800 CE and 900 CE the Maya were not getting enough to eat?
- Why did farmers cut down trees and burn them?
- What were some of the great accomplishments of the Mayan civilization?

CONCEPT/SKILL FOCUS: Compare and Contrast

INSTRUCT: Students will compare and contrast the details of the four theories presented in the article. Instruct pairs of students to reread the text and to underline information that will be helpful for this purpose. Introduce the graphic organizer, *A Fallen City*, and have the partners record the data on their charts. They should answer the question in the “Think Tank” independently.

ASSESS: Collect the *Fallen City* worksheet and review. Be sure that the students have collected accurate and pertinent information. Evaluate their independent response to the “Think Tank” question.

EXTEND

Graphic Arts Supply the class with a five-paneled template or have them create one. Instruct students to create a comic strip depicting one of the theories regarding the fall of the Mayan civilization. Comics should be informative and must include drawings and captions. Further challenge students to use some/all of the vocabulary words in their comic strips.

A Fallen City

Obtain information from the article, “The Ruins in the Jungle,” to compare the theories below.

Theory	Details
Not enough rain	
Cutting too many trees	
Fighting	
Combination	

THINK TANK: After thriving for 2,000 years, why do YOU think that the Maya abandoned their cities? Answer this question on the back of your paper in a well-supported paragraph.