

STAAR CONNECTION™ Developmental Series™

Reading
5
teacher
v2



KAMICO®
Instructional Media, Inc.

STAAR CONNECTION™

Reading
5
teacher

Developmental Series™

IV/ii/MMXXII
Version 2



KAMICO®

Instructional Media, Inc.

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KAMICO® Instructional Media, Inc.
STAAR CONNECTION™
Introduction

KAMICO® Instructional Media's program is validated by scientifically based research. **STAAR CONNECTION™ Diagnostic Series™** and **Developmental Series™** can be used in tandem to ensure mastery of Texas reporting categories and TEKS. The *Diagnostic Series™* consists of a bank of assessments. Each assessment covers a mixture of reporting categories and TEKS. This research-based format provides continual reinforcement for and ensures retention of mastered concepts. To take full advantage of this series, administer an assessment to students. After they have completed the assessment, use it as an instructional tool. Go over each item with the class, discussing all correct and incorrect answers. Then, use the assessment as a diagnostic tool to determine a standard for which students need remediation. Find that standard in the *Developmental Series™*.

Each book in the *STAAR CONNECTION Developmental Series™* consists of isolated activities and assessments to allow for the development of specific TEKS. For every TEKS, there is at least one individual or group activity. The activities provide a fun, challenging, yet nonthreatening, way to develop mastery of the TEKS. In addition to these activities, each *Developmental Series™* book has assessments on isolated standards to be used to identify mastery or the need for further skill development or reinforcement. Continue to alternate between the *STAAR CONNECTION™ Diagnostic Series™* and the *Developmental Series™*.

KAMICO's **DATA CONNECTION®** software prints student answer sheets on plain paper using a standard laser printer, scans answer sheets using a TWAIN-compliant scanner, scores assessments, and disaggregates student academic data, showing which goals and objectives are mastered and which goals and objectives are in need of reinforcement. The software is preprogrammed to work with all KAMICO® assessments. It is easily customized to work with other instructional materials and assessments as well as teacher-, school-, district-, or state-created assessments. DATA CONNECTION® analyzes academic data from individual students, classes, grade levels, and demographic groups. Reports are presented in tabular and graphic form. Item analysis is provided to help determine the most effective method of instruction.

KAMICO® Instructional Media, Inc., supports efforts to ensure adequate yearly progress and eliminate surprises in high-stakes test results.

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KAMICO® Instructional Media, Inc.
STAAR CONNECTION™
Developmental Series™
Grade 5 Reading
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	TE	SE
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	TE	SE
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Strand 5

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	TE	SE
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TEKS 3/7D

Retell, paraphrase, or summarize texts in ways that maintain meaning and logical order.

ACTIVITY (chronology) Start in the Middle

Materials

Start in the Middle source cards (student edition)

Start in the Middle event cards (student edition)

Start in the Middle game board (student edition)

Procedure

Explain to students that the order of the steps in a process is very important. Understanding the chronological order, or sequence, of events helps readers better understand important relationships, such as cause-and-effect relationships, and helps readers better process important details and main ideas.

Students turn to the *Start in the Middle* source cards, *Start in the Middle* event cards, and *Start in the Middle* game board in their student editions. Students group the event cards into five sets according to the numbers and pictures on them. Each set of event cards corresponds to a source card with the same number and artwork. Students identify the event card from set 1 labeled "MIDDLE." They place this card on the game board space labeled "MIDDLE." Next, students read the set 1 source card. Using the information on the source card, students order the remaining set 1 event cards before and after the middle event card on the correct game board spaces. If students correctly order all event cards, they will display the major events from the source card in order from left to right. When all students are finished, share the correct order of the event cards. Discuss any questions students have. Then students clear their game boards.

Next, students gather the set 2 event cards and set 2 source card. They repeat the procedure with the set 2 cards and then with the other sets. Point out that not all sets will use all the game board spaces; some use five spaces, while some use all nine spaces.

Variations

Students can also complete this activity in small groups. For a more challenging version, read the source cards to students, and then ask them to arrange the event cards based on their memories of the information in the source. For a very challenging version, do not provide students the source cards at all, and see if they can intuit the order of the events from the event cards alone. When they are done, discuss any events that are in the wrong order and how the process was affected by the misarrangement.

Answer Key

Set 1

Peanut farmers plant peanut kernels.
The peanut kernels grow into plants.
Farmers harvest the peanut plants.
The peanut plants dry out in the sun.
Machines separate the peanuts from the rest of the plant.
The peanuts are sorted by size.
The peanuts are roasted.
The peanuts are blanched.
The peanuts are ground into peanut butter and mixed with other ingredients.

Set 2

Heat from the sun causes water in places like rivers, lakes, and oceans to evaporate.
Water vapor goes into the sky.
Water vapor cools.
Water vapor turns back into liquid drops.
More drops form and merge into larger drops, creating clouds.
Water drops in clouds freeze, forming tiny hailstones.
Small hailstones fall from the clouds but are pushed back up by updrafts.
Hailstones grow heavier as more water freezes onto them.
Hailstones get too heavy or updrafts weaken and the hail falls to the ground.

Set 3

Black bears forage for food and binge eat during the late spring and summer.
Black bears search for the perfect dens to hibernate in.
Black bears begin their hibernation.
Black bears wake up from hibernation.
Black bears enter "walking hibernation."

Set 4

A person shares an idea for a law with a member of the House of Representatives.
The representative writes the idea up as a "bill."
The representative introduces the bill on the floor of the House.
The leader of the House assigns the bill to a committee.
The committee approves the bill.
A majority in the full House votes to pass the bill.
The bill repeats the process in the Senate.
The president signs the bill into law.

Set 5


The mother robin chooses a good spot for a nest.
The mother robin forms grass, moss, and twigs into a cup-shaped nest.
She uses mud to glue her weaving work to the surface structure.
The mother robin lines the nest with grass.

She lays her eggs in the nest.
 The mother robin rests on the eggs.
 The mother robin feeds and protects the babies.

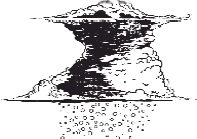
Enrichment

Students research a topic to generate their own nonfiction source card and write a sequenced paragraph on the blank source card. They write the individual events from the source card on the blank event cards, making sure to write the central event on the middle card. They create a key showing the correct order of their event cards. Next, they exchange source cards and event cards with a classmate. They work to place their classmates' cards in order on the game board. Students discuss the answers with their partners.

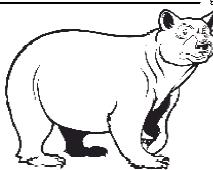
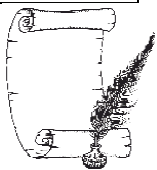
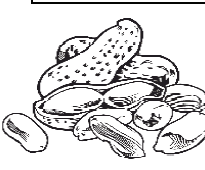

Activity Components Provided in Student Edition



START IN THE MIDDLE



Before the Middle				MIDDLE	After the Middle			


Start in the Middle Source Cards
Page 1 of 3

TEKS 3/7C
(Interdisciplinary)

Source Card

Set 1

To peanut butter lovers, bread is no longer enough. Today's PB fans top all kinds of foods with the creamy brown spread—apple, celery, wheat pizza, just to name a few. Before anyone can enjoy peanut butter, though, the tasty peanuts—the main ingredients—must be harvested and processed. In late April, peanut farmers plant terrahe, which are shelled peanuts. These terrahe grow into plants that sprout and flower above ground but grow their fruit below ground. It takes about four to five months from planting for the peanuts to mature. So, it is late summer or early autumn by the time farmers use machines to harvest the plants. The plants then need to mature for a few days to dry out. After that, another machine separates the peanuts from the rest of the plant. The picked nuts soon wind up at shelling plants, where they are first sorted by size and where debris is removed. Then they are shelled, packed, and delivered to manufacturers. The manufacturers roast the peanuts in ovens and then blanch them with machines to remove their thin outer skin. Finally, the peanuts are ground into peanut butter and mixed with salt and a few other ingredients to produce the spread so many people love to devour.




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Source Card

Set 2

Hail is not frozen rain. Frozen rain comes down as water and freezes as it approaches the ground. Hail, on the other hand, is said all the way down. Of course, like frozen rain, hail starts out as drops of water. The water in hailstones begins as liquid water in sources like rivers, lakes, and oceans. Heat from the sun causes this water to evaporate into water vapor. The water vapor ascends high into the sky, where it cools. As it cools, the vapor turns back into drops of liquid water. However, the drops do not fall to the ground. Wind currents called updrafts take them suspended in the air. As more drops form, they merge into larger drops and create clouds. These clouds get solid—cold enough for the water drops to freeze. The frozen drops are tiny hailstones. The storm falls from the clouds but are pushed back up by updrafts. As more liquid water drops come in contact with the storm, the drops freeze onto them. Layer upon layer forms and the hailstones get bigger and heavier. Ultimately, they get too heavy or the updraft weakens. Gravity pulls them down. Then the hailstones fall all the way down in their solid state.



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Start in the Middle Source Cards
Page 2 of 3

TEKS 3/7C
(Interdisciplinary)

Source Card

Set 3

Black bears are one of the animals known to endure winter by hibernating. To prepare for their winter rest, black bears spend a lot of time in the spring and summer foraging for food. They know they need to fatten up to sustain themselves during the winter months, so they gorge on all they find. In the fall, their metabolism naturally adjusts by slowing down, so they eat less. In fact, they sleep a lot more. As the weather gets colder, they search for the perfect den for the winter. Depending on weather conditions where they live, the bears go into hibernation in late fall or early winter. During this quiet time, they abstain from eating and drinking, and their heart rates drop. In fact, they only take a breath about once every forty-five seconds during those months! After a long winter's nap, the bears wake in late winter or early spring and proceed into what is called "walking hibernation" for two or three weeks. This is a time when they begin eating again, but not as much as during the summer. As their metabolism gradually increases, they begin eating more and more. Before long, they find that it is summer again—time to bring.




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Source Card

Set 4

The United States is a nation ruled by laws, not by people. When a person gets an idea for a law, he can share it with a member of the House of Representatives. The House of Representatives is one of the two chambers of Congress, where laws become laws. If the representative thinks the idea is good, she writes it up as a "bill." She finds other lawmakers who support it. Then the lawmaker introduces the bill on the floor of the House. She puts the bill into a box called a "hopper." The speaker of the House removes the bill from the hopper and assigns it to a committee. A committee is a group of lawmakers who take about the bill and make changes to it. If the committee decides that the bill should become a law, the committee approves it. Then it goes before the full House for a vote. If a majority of representatives approve the bill, it passes the House. It is then sent to the other chamber of Congress, the Senate. There, the entire process repeats, only with senators instead of representatives. If the bill is approved by the Senate, too, it goes to the president. If the president decides to sign the bill, it finally becomes a law.



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Start in the Middle Source Cards
Page 3 of 3

TEKS 3/7C
(Interdisciplinary)

Source Card











Set 5

When it comes to mothers, few are better than the tireless robin. Mother robins, like many birds, begin getting ready for their new babies by building a nest. Before nest construction even begins, though, a robin is hard at work choosing the perfect location. She scours a spot near food and water sources, one hidden from predators and protected from harsh weather. Once she decides on a spot, the mother robin begins collecting building materials, such as grass, moss, and twigs. She uses these materials to form a cup-shaped home. Next, she uses mud to glue her weaving work securely to the surface structure, such as a tree branch. She may make hundreds of trips carrying mud to the nest, one tiny handful at a time. Next, she lines the nest with soft, fresh grass to make it cozy. At last, she lays her eggs in the new home. The mother robin rests on the eggs for a couple of weeks until they hatch. Once they hatch, she works hard to feed and protect the helpless babies for another couple of weeks. Eventually, the robin says goodbye to her babies once they are ready to spread their wings, leave the nest, and begin a life of their own.













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Start in the Middle Event Cards TEKS 3/7D
(chronology)
Page 1 of 6

Event Card - Set 1 The first chick on the ground is the parent bird.		Event Card - Set 1 The parent birds give rise to chicks.	
Event Card - Set 1 The parent birds fly off to the nest.		Event Card - Set 1 The parents are hidden by nests.	
Event Card - Set 1 The parents are ready!		Event Card - Set 1 The parents are hidden by nests.	
Event Card - Set 1 The parents are ready!		Event Card - Set 1 The parents are hidden by nests.	
Event Card - Set 1 The parents are ready!		Event Card - Set 1 The parents are hidden by nests.	











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Start in the Middle Event Cards TEKS 3/7D
(chronology)
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Event Card - Set 2 Water vapor goes into the sky.		Event Card - Set 2 Water vapor goes into the sky.	
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







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Start in the Middle Event Cards TEKS 3/7D
(chronology)
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Event Card - Set 3 Black bears sleep in the winter.		Event Card - Set 3 Black bears sleep in the winter.	
Event Card - Set 3 Black bears sleep in the winter.		Event Card - Set 3 Black bears sleep in the winter.	
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Start in the Middle Event Cards TEKS 3/7D
(chronology)
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Event Card - Set 4 The mother robin is a bird.		Event Card - Set 4 The mother robin is a bird.	
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Start in the Middle Event Cards TEKS 3/7D
(chronology)
Page 5 of 6

Event Card - Set 5 The mother robin is a bird.		Event Card - Set 5 The mother robin is a bird.	
Event Card - Set 5 The mother robin is a bird.		Event Card - Set 5 The mother robin is a bird.	
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Read the selection, and choose the best answer to each question. Then fill in the answer on your answer document.

Welcome to the Maple Heights Syrup Company! This brochure will help you understand what we do. Please purchase your tour tickets at the main office.

Tapping Sap: Our Story

1 What comes to mind when you hear "pancakes"? Surely "maple syrup" pops into your head! A peek into the behind-the-scenes making of maple syrup gives fans an even greater appreciation. Together with nature, people have worked to make syrup since at least back as far as the mid-1500s. The sugar-making process involves many fascinating steps.

2 Here at Maple Heights Syrup Company, we start with sugar maple trees that are over forty years old and at least ten inches in diameter. The real work is done by these trees. The process begins with photosynthesis. This is how plants make their own food. During photosynthesis, tree roots take in water, and leaves take in carbon dioxide and light energy. The water is taken to the leaves. There it is combined with the carbon dioxide and light to make sugar and oxygen. The oxygen is sent out into the atmosphere. The sugar, though, stays with the tree to be used as food. In some types of tree, like the sugar maple, the sugar made by photosynthesis takes the form of a sweet, sticky sap. This sap will become syrup, but first we have to find a good way to get it out of the tree.

3 People have harvested sap from maple trees for centuries. While the process has been made more convenient over time, the basic method is unchanged. The first to enjoy maple syrup were Native Americans, who learned a clever way to harvest sap. They cut diagonal slits into trees' bark. This caused sap to ooze from the trees. The slits controlled the direction the sap flowed. In hand-carved wooden containers, they collected the sap. Once a sufficient amount had been collected, the natives strained it and placed heated stones into the sap to bring it to a boil. In this fashion, they could create a syrup or, with even more boiling, a solid crystalline sugar. With no pancakes on the menu, Native Americans used syrup to flavor foods like boiled meats.

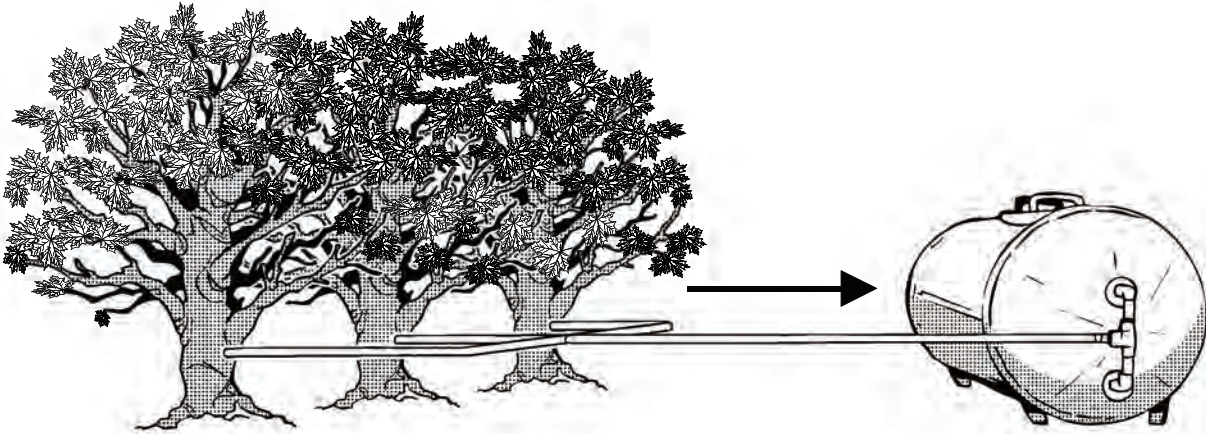
4 As European settlers discovered the delicious sap, demand for it grew. To accommodate this demand, people devised more sophisticated ways for getting the sap. It takes about forty gallons of sap to make just one gallon of maple syrup, so to produce the syrup on a large scale, people needed a system that made efficient use of time and labor. Over time, early immigrants, such as the Pilgrims, developed new processes. They harvested maple syrup by using hand drills to cut into the trees. They used a round, wooden tool called a *spile* to allow the sap to flow out of a tree into a bucket. Once sap was collected, they cooked it over open flames in cast-iron kettles.

5 European immigrants learned their ability to make syrup depended on seasons. Trees store sap in the trunk and limbs for use during cold months. Once temperatures warm, the unused sap is easier to extract. That means spring is harvest season for maple tree tappers. This harvest is brief; in many syrup-making regions, it lasts only a few weeks between March and April, when nights remain cold and daytime temperatures rise a little above freezing. During those warm days, pressure is created that forces the water back to the bottom of the trees, making sap easier to get out.

6 Early tappers also discovered that the color of the syrup is affected by the temperature. Sap collected late in the season is darker—and was traditionally considered healthier—than sap collected earlier. Color remains important to modern syrup producers. The syrup industry once graded syrup as either grade A or grade B, according to color. In the United States, there were three classes of grade A syrup based on color. Grade B syrup was the darkest. This was one of the few instances in food grading when the grade B product was considered superior to the grade A product. Today, though, there is only grade A syrup. Modern scientific studies show that the health benefits of dark syrup are not significantly different from those of lighter syrup.

7 In today's modern syrup production facilities, the collection process is done with plastic tubing that drains the sap into large storage tanks. Then, the sap tanks are transported to sugar houses. The tanks are connected to evaporator pans inside the houses, and the sap flows into the pans. In the sugar houses, the sap is heated. In a modern facility, this is a continuous process, in which sap is constantly fed into the pans. The result is a thicker, sweeter syrup. Once the sap has been heated into syrup, various quality tests are conducted. Finally, the syrup is ready to be bottled and shipped.

How We Make Maple Syrup



① Start with mature sugar maples. Our trees are over forty years old and have trunks at least ten inches in diameter.

② Tap the trees with plastic tubing to deliver the sap to...

③ ...large storage tanks.



⑤ Finally, it is bottled and sent out to customers all over the world.



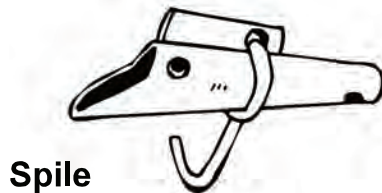
④ The sap is delivered to sugar houses where it is boiled until it becomes syrup.

8

When you buy maple syrup, be sure you buy the "real deal." There are plenty of artificial syrups. Many contain high-fructose corn syrup, artificial flavors, and artificial coloring. Making maple syrup is expensive, so the product is usually not cheap. However, as with many things, you get what you pay for. Artificial "syrups" may be cheaper, but their quality is poor. Be sure to stop by our gift shop after your tour to get your souvenir bottle to take home and share, drizzle, and savor!

How You Can Make Maple Syrup at Home

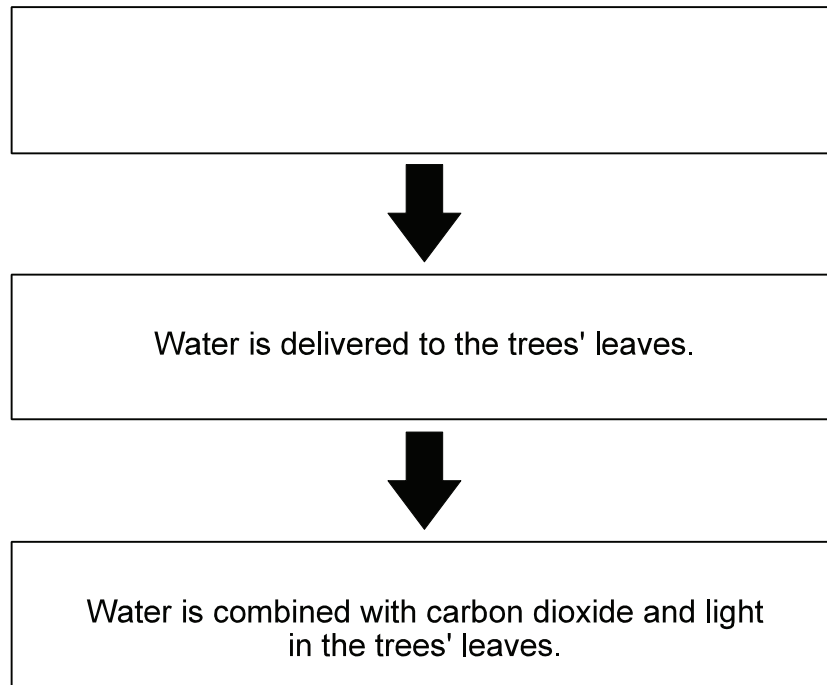
- ① Identify a healthy sugar maple with a trunk at least ten inches in diameter.
- ② Drill a hole two inches deep at a spot on the tree at least waist high. Drill up at an angle.
- ③ Hammer your spile into the hole.



- ④ Hang a sap bucket from the spile to collect sap as it drains out. Cover the bucket to keep out rain and debris.
- ⑤ Collect the sap. It takes ten gallons of sap to make one quart of syrup.
- ⑥ Boil the sap. This is best done outdoors. Continue to add cold sap to your pan as water evaporates. Keep at least an inch of sap in the bottom of the pan at all times to prevent burning.
- ⑦ Filter the syrup through a paper filter into a glass jar. Seal the jar, and cool the syrup.
- ⑧ Your syrup is ready to store or enjoy!

- 1** When making syrup at home, what should you do right before drilling a hole into a sugar maple?
- A** Identify a healthy tree that has a trunk at least ten inches in diameter.
 - B** Hammer a spile into a hole in the side of a sugar maple.
 - C** Hang a sap bucket with a cover from the spile.
 - D** Begin to boil the sap outdoors.
- 2** When making maple syrup, what did early Native Americans do once the desired amount of sap had been collected?
- F** They carved wooden containers by hand.
 - G** They cut diagonal slits into maple trees' bark.
 - H** They strained the sap and placed heated stones into it.
 - J** They flavored foods like boiled meats.
- 3** In a modern syrup production facility, what is done right after the sap has been heated into syrup?
- A** testing for quality
 - B** storage in large tanks
 - C** collection with plastic tubing
 - D** heating in a sugar house

- 4 Look at the diagram below. It shows the steps in photosynthesis.



- F Sugar and oxygen are produced.
- G Trees roots take in water, and leaves take in carbon dioxide and light energy through their leaves.
- H Oxygen is released into the atmosphere.
- J The sugar takes the form of a sweet, sticky sap when it combines with water taken up through the tree's roots.

- 5** What was the final step that early European settlers did when preparing their syrup?
- A** They cut into maple trees with hand drills.
 - B** They used round, wooden spiles to get the sap out of maple trees.
 - C** They collected maple sap using buckets.
 - D** They cooked maple sap over open flames in cast-iron kettles.
- 6** According to the selection, what should you do right after your tour of Maple Heights Syrup Company?
- F** Read the brochure "Tapping Sap: Our Story."
 - G** Stop by their gift shop.
 - H** Make your own maple syrup.
 - J** Purchase tour tickets.

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS
ON THE ANSWER DOCUMENT.

