



2023-2024

MSCS WINTER

**Student/Parent Packet
Week 1**



4th Grade

ELA

December 21, 2023 - January 3, 2024

**Have Fun
together!**

Department of Curriculum & Instruction

Literacy Support Parent Guide

A Sweet Invention

by Tracy Vonder Brink 2022



In this section of the Literacy Support Guide, we're reading anchor text "A Sweet Invention" by Tracy Vonder Brink. In "A Sweet Invention," Tracy Vonder Brink tells the story of how Ruth Wakefield invented the chocolate chip cookie.

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3. Complete open-ended written responses.

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1. Read the text.
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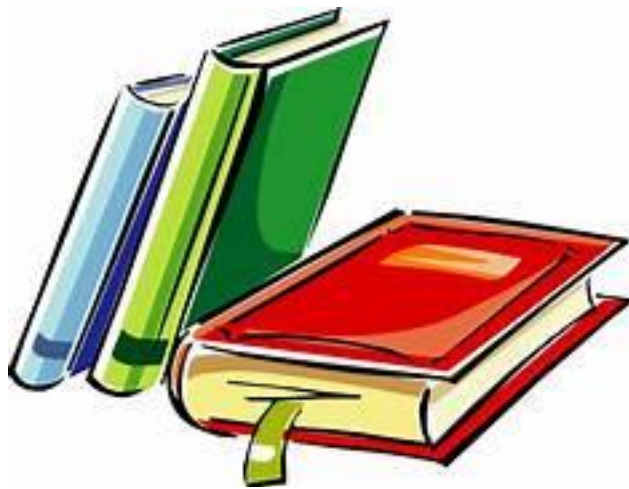
Ways to Support Your Child

1. Ask your child about the informational texts at home: What were "A Sweet Invention" and "Papadum Pizza" about?
2. **Parent Answer Keys:** Review written responses together.

Related Media: Watch the following clips with your child at home:

- ['The chemistry of cookies - Stephanie Warren'](#)
- ['Someone You Should Know: The family behind the chocolate chip cookie'](#)
- ['The Inventor of The Potato Chip: George Crum'](#)
- ['Where Does Chocolate Come From?'](#)

ANCHOR TEXT



Name: _____

Class: _____

A Sweet Invention

By Tracy Vonder Brink

2022

In this informational text, Tracy Vonder Brink explains how a popular treat came to be. As you read, take notes on how people learned about Ruth's cookies.

- [1] Ruth Wakefield wanted a cookie, but not just any cookie. Ruth wanted something new. Something different. And she was just the person to create¹ it.

In the 1930s, Ruth and her husband owned the Toll House restaurant in Whitman, Massachusetts. Toll House was a well-known stop on the way between Boston and Cape Cod. Actors, singers, and other celebrities of the time all ate there. Ruth was in charge of the restaurant's great food.

Ruth had studied cooking in college, and she was good at it. People said that all Ruth had to do was taste a dish, and then she could make it without even looking at a recipe.² She was always learning and trying new things. Every January, Ruth and her husband took a trip overseas to try foods in different countries, such as France and Egypt.



"Untitled" by Shakti Rajpurohit is licensed under CC0.

Toll House was especially known for its desserts. Ruth made lemon meringue pie, Boston cream pie, and gingerbread. The restaurant served a thin butterscotch cookie, but Ruth wanted to create something brand-new. On the way home from one of their trips overseas, she planned out a new recipe.

- [5] At that time, chocolate was used in desserts, but it was always melted and mixed in. What if Ruth could use chocolate a different way? She thought back to a college class on cooking where she learned how foods work together. She also recalled her past experiments with chocolate.

1. **Create (verb)** to make or invent
2. **Recipe (noun)** a list of materials and steps to follow to make a food

Back home, Ruth ordered bars of semi-sweet chocolate from the grocery store. Then she used an ice pick to break the chocolate bars into pieces and added the bits to cookie dough. She tried batch³ after batch until she had one she liked. Ruth named her new cookie the Chocolate Crunch Cookie.

Chocolate Crunch Cookies were a hit! Customers at her restaurant loved them so much they asked her to make them at home. They shared the cookies with their friends. People wrote to Ruth and asked her for the recipe. She was happy to give it to them.

Ruth's cookies grew even more famous after she was invited on a radio show to talk about them. Then the recipe was printed in the newspaper. The cookies were so popular that the chocolate bar company saw their sales go up 500% in the region⁴ where Ruth lived! In 1939, the company asked Ruth if they could use her recipe and the Toll House name on their chocolate bars. Ruth agreed.

Everyone who made the cookies from Ruth's recipe had to break up the chocolate bars the way Ruth did. It wasn't always easy — Ruth's daughter remembered her mother's hands turning red and sore from chopping up chocolate when making a big batch of cookies for the restaurant. Then, in 1940, the chocolate bar company made chocolate chips for the first time and put them on sale with Ruth's recipe on the bag.

- [10] Nobody had seen anything like chocolate chip cookies. Other companies began making their own chocolate chips and cookies. Chocolate chip cookie mix appeared on store shelves. Ruth's cookies became popular and stayed that way. Chocolate chip cookies are still named as one of people's favorite types of cookies.

Ruth retired⁵ in 1967 and sold her restaurant. Today, the Toll House name and Ruth's recipe still appear on bags of chocolate chips and on chocolate chip cookie products. Her skill at cooking and experimenting with new tastes gave us one of our favorite treats. The next time you enjoy a chocolate chip cookie, thank Ruth Wakefield.

"A Sweet Invention" by Tracy Vonder Brink. Copyright © 2022 by CommonLit, Inc. This text is licensed under CC BY-NC-SA 4.0.

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-
3. an amount of something created at one time
 4. **Region (noun)** an area of land
 5. **Retire (verb)** to stop working

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. What is the main idea of "A Sweet Invention"?
 - A. Chocolate chip cookies started out as a healthy snack.
 - B. There are many different kinds of cookies that people like.
 - C. Ruth Wakefield was a cook who invented the first chocolate chip cookie.
 - D. The Chocolate Crunch Cookie was the first cookie served by the Toll House restaurant.

2. How does the author organize the information in the text?
 - A. by asking questions about chocolate chip cookies and answering them
 - B. by explaining the steps a baker needs to follow to bake chocolate chip cookies
 - C. by listing how chocolate chip cookies are different from other kinds of cookies
 - D. by telling the story of how chocolate chip cookies were created and what happened next

3. Which detail shows that Ruth had the skills to invent the chocolate chip cookie?
 - A. "Actors, singers, and other celebrities of the time all ate there." (Paragraph 2)
 - B. "She thought back to a college class on cooking where she learned how foods work together." (Paragraph 5)
 - C. "People wrote to Ruth and asked her for the recipe." (Paragraph 7)
 - D. "Ruth's cookies grew even more famous after she was invited on a radio show to talk about them." (Paragraph 8)

4. In paragraph 11, "product" most closely means —
 - A. the final result
 - B. a special type of bag
 - C. something made to sell
 - D. the answer to a math problem

5. How did the chocolate chip cookie become popular?

Open-Ended Written Responses

Directions: Write your answers to the following questions in the space provided. Be prepared to share your original ideas.

1. In this text, the author explains how Ruth Wakefield invented the chocolate chip cookie. Why is it important to learn about how foods were invented? What is your favorite cookie or treat? How do you think that treat was invented?

2. Ruth Wakefield experimented with ingredients to make the chocolate chip cookie. Have you ever experimented with food? What did you try? Did you like the results? If you have not experimented with food, what kind of experiment would you like to do? What ingredients would you use?

3. If you were Ruth Wakefield, would you have shared your recipe with others? Why or why not? How would things be different if she did not share her recipe with others?

PAIRED TEXT



Name: _____

Class: _____

Papadum Pizza

By Carolyn Fay

2018

Some families have what we call exchange students, or students from a different country who are studying in America. These students stay with them while they go to school in America. In this story, a family has an exchange student from India staying at their home. As you read, take notes on how Devon feels about Siroj.

- [1] When Devon's sister, Lil, went off to college, Devon's stomach felt all twisty. Then Mom said that Siroj, a high-school student from India, would be staying in their house. In Lil's room. That made Devon's stomach feel worse. He missed his sister so much.

"What if I can't understand him?" Devon asked.

"He speaks English well," Mom said.

On Siroj's first day, he made some small talk and then disappeared into his room. *Lil's room*, thought Devon.



["Papadam.jpg"](#) by Anette B. is in the public domain.

- [5] As days went on, Siroj started spending more time in the rest of the house. He was in the kitchen a lot. His cooking filled the air with steam and spice that made Devon's eyes water.

"Smells wonderful!" Mom said.

When Lil called a few days later, Devon told her about Siroj's cooking.

"Lucky!" Lil said. "I love Indian food."

"Seems too spicy for me," said Devon.

- [10] One day, Mom had to work late. "Siroj will stay with you until I get home," she said. Devon's stomach flipped. Lil had always stayed with him when Mom had to work late.

When Devon got home from school, Siroj greeted him at the door. "Would you like a snack?" Siroj asked.

Devon shrugged.¹ He and Lil used to cook together after school. They called it “making messes.”

Siroj opened the refrigerator. “How about a yogurt?”

“I had one at breakfast,” said Devon.

[15] Siroj opened a cupboard. “Pretzels?”

“No, thanks.”

Siroj smiled. “Wait here.” He returned with a package. “An Indian snack,” he said. He pulled out a round, thin cracker the size of a small Frisbee.

He poured oil into a pan and fried the cracker. The kitchen filled with a peppery smell.

Siroj handed Devon a plate with the sizzling disk on it. “Papadum,” he said. “Made from lentil² flour.”

[20] Devon's stomach flipped again. But Lil had said she loved Indian food. Should he try it? He broke off a piece.

It was crunchy and snappy on his tongue. He took another bite. “Not bad,” he said. It was actually really good.

Siroj's face crinkled into a big smile. “My sister made these,” he said. “At home, in India.”

“Do you miss her?” Devon blurted.

“Every day,” Siroj said. He slid another papadum into the pan. “Usually we eat these with sauces.”

[25] “Like tomato sauce?” Devon said. “Lil and I put sauce and cheese on English muffins to make mini pizzas. I wonder how these would taste with...” He stopped, suddenly embarrassed. This was Siroj's special food from home.

But Siroj tilted his head from side to side and said, “Why not?”

Siroj fried up more papadums. Devon added sauce and cheese. Siroj put them in the oven for just a few minutes.

1. **Shrug (verb)** to raise and draw (the shoulders) in to show that something is not important

2. a round, flat seed

The flat brown pizzas crunched in their mouths when they ate them.

"Not bad," Siroj said. "I'll have to tell my sister." Then he laughed.

[30] Devon couldn't help laughing too.

They made another batch.

The kitchen smelled of tomatoes, cheese, and zingy pepper when Mom called to say she was on her way home. "Shall I pick up food?" she asked.

"You don't need to," said Devon. "We have dinner covered."

"Really?" Mom sounded surprised.

[35] "Yep," said Devon. "Siroj and I have been making messes."

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Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. What is the central message of the story?
 - A. Food can bring us together.
 - B. Moving to a new place is difficult.
 - C. Learning new things is easier with friends.
 - D. Older siblings can teach us important lessons.

2. How are Siroj and Devon similar?
 - A. They are both the youngest in their family.
 - B. They are both far away from home.
 - C. They both miss their sisters.
 - D. They both love to eat pizza.

3. How does paragraph 12 help the reader understand the story?
 - A. by describing why Devon's mom left him home with Siroj
 - B. by explaining that Lil and Devon used to cook together
 - C. by showing how Siroj wants to be friends with Devon
 - D. by telling why Devon does not like Indian food

4. Why is Devon "embarrassed" in paragraph 25?
 - A. He thinks that Siroj might feel bad if he tells him he does not like papadums.
 - B. He feels bad for asking Siroj to change a food from his home country.
 - C. He is hungry and ate up all of the papadums that Siroj made.
 - D. He is worried that Lil will find out he was cooking with Siroj.

5. How do Devon's feelings about Siroj change from the beginning to the end of the story?

Open Ended Written Responses

Directions: Write your answers to the following questions in the space provided. Be prepared to share your original ideas.

1. In the story, Devon and Siroj become closer while making a new snack. Have you ever made food with someone, like a friend or family member? How did cooking together make you feel? In your opinion, can food help us better understand one another?

2. Devon and Siroj create a new food by combining two of their favorite snacks: Indian Papadum and mini pizzas. What is your favorite food? Partner up with a classmate to see how you can put your two favorite foods together to make a new, yummy snack. After you have thought of your snack, think about what we can learn from each other — how can making something new together help us make friends?

3. In the story, Devon feels sad that his sister has left for college and is no longer around the house. Have you ever had a sibling or member of your family move away? Did you feel similarly to Devon? Why or why not?

4. Siroj is a high school student from India studying in America. How do you think Siroj might feel living in another family's house, far from his own home, in a place with different foods, different ways of doing things, etc.? How do you think this story would be different if it was told from Siroj's point of view? As a creative extension, write the story from Siroj's point of view, using the same dialogue, but showing how Siroj feels about living in Devon's house.

ANSWER KEYS



Answer key > A Sweet Invention

by Tracy Vonder Brink ● 2022

1. What is the main idea of "A Sweet Invention"?

4.RI.KID.2 ^

Determine the main idea of a text and explain how it is supported by key details; summarize the text.

- A. Chocolate chip cookies started out as a healthy snack.
- B. There are many different kinds of cookies that people like.
- C. **Ruth Wakefield was a cook who invented the first chocolate chip cookie.**
- D. The Chocolate Crunch Cookie was the first cookie served by the Toll House restaurant.

2. How does the author organize the information in the text?

4.RI.CS.5 ^

Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

- A. by asking questions about chocolate chip cookies and answering them
- B. by explaining the steps a baker needs to follow to bake chocolate chip cookies
- C. by listing how chocolate chip cookies are different from other kinds of cookies
- D. **by telling the story of how chocolate chip cookies were created and what happened next**

3. Which detail shows that Ruth had the skills to invent the chocolate chip cookie?

4.RI.KID.1 ^

Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

- A. "Actors, singers, and other celebrities of the time all ate there." (Paragraph 2)
- B. **"She thought back to a college class on cooking where she learned how foods work together." (Paragraph 5)**
- C. "People wrote to Ruth and asked her for the recipe." (Paragraph 7)
- D. "Ruth's cookies grew even more famous after she was invited on a radio show to talk about them." (Paragraph 8)

4. In paragraph 11, "product" most closely means —

4.RI.CS.4

Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

- A. the final result
- B. a special type of bag
- C. **something made to sell**
- D. the answer to a math problem

5. How did the chocolate chip cookie become popular?

4.RI.KID.3 ^

Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Answers will vary. Students should explain that the chocolate chip cookie became popular because Ruth shared the recipe. Paragraph 7 states, "They shared the cookies with their friends. People wrote to Ruth and asked her for the recipe. She was happy to give it to them." Then the radio and newspaper helped spread the word. Paragraph 8 states, "Ruth's cookies grew even more famous after she was invited on a radio show to talk about them. Then the recipe was printed in the newspaper." By sharing her recipe with others, Ruth's cookies became very popular.

Answer key > Papadum Pizza

by Carolyn Fay ● 2018

1. What is the central message of the story?

4.RL.KID.2 ^

Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.

- A. **Food can bring us together.**
- B. Moving to a new place is difficult.
- C. Learning new things is easier with friends.
- D. Older siblings can teach us important lessons.

2. How are Siroj and Devon similar?

4.RL.KID.3 ^

Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events

- A. They are both the youngest in their family.
- B. They are both far away from home.
- C. **They both miss their sisters.**
- D. They both love to eat pizza.

3. How does paragraph 12 help the reader understand the story?

4.RL.CS.5 ^

Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.

- A. by describing why Devon's mom left him home with Siroj
- B. **by explaining that Lil and Devon used to cook together**
- C. by showing how Siroj wants to be friends with Devon
- D. by telling why Devon does not like Indian food

4. Why is Devon "embarrassed" in paragraph 25?

4.RL.CS.4 ^

Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Help

- A. He thinks that Siroj might feel bad if he tells him he does not like papadums.
 - B. He feels bad for asking Siroj to change a food from his home country.**
 - C. He is hungry and ate up all of the papadums that Siroj made.
 - D. He is worried that Lil will find out he was cooking with Siroj.
5. How do Devon's feelings about Siroj change from the beginning to the end of the story? **4.RL.KID.3** ^

Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events

Answers will vary. Students should explain that Devon goes from feeling uncomfortable with Siroj to being pleased that he is living with them. Devon's sister has just moved away to college when Siroj, their new exchange student from India, moves in. Devon misses his sister a lot and does not want someone to take her place: "Then Mom said that Siroj...would be staying in their house. In Lil's room. That made Devon's stomach feel worse. He missed his sister so much" (Paragraph 1). One afternoon, Siroj makes Devon a *papadum* and shares with Devon that he also misses his sister, who is back in India: "'Do you miss her?' Devon blurted. 'Every day,' Siroj said" (Paragraph 23-24). Devon realizes that he can have fun with Siroj just like he used to have with his sister "making messes" in the kitchen and sharing snacks (Paragraph 35).



2023-2024

MSCS WINTER

Student/Parent Packet
Week 2



4th Grade
ELA

December 21, 2023 - January 3, 2024

**Have Fun
together!**

Department of Curriculum & Instruction

Literacy Support Parent Guide

The Super Soaker Story

by Tracy Vonder Brink 2023



In this section of the Literacy Support Guide, we're reading anchor text "The Super Soaker Story" by Tracy Vonder Brink. In "The Super Soaker Story," Tracy Vonder Brink tells the story of how Lonnie Johnson invented the Super Soaker.

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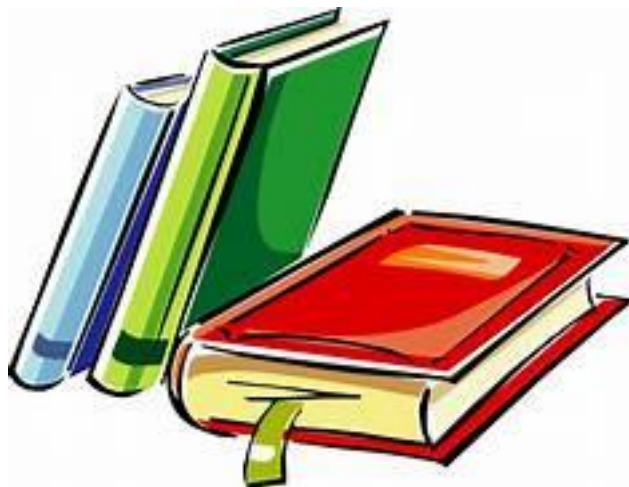
Ways to Support Your Child

1. Ask your child about the informational texts at home: What were "The Super Soaker Story" and "Benjamin Banneker and His Amazing Clock" about?
2. **Parent Answer Keys:** Review written responses together.

Related Media: Watch the following clips with your child at home:

- ['The NASA Scientist Who Invented the Super Soaker'](#)
- ['How the Rubik's Cube Became One of the Best Selling Toys in History'](#)
- ['Explaining Segregation to Her Kids'](#)

ANCHOR TEXT



Name: _____

Class: _____

The Super Soaker Story

By Tracy Vonder Brink

2023

This informational text tells how Lonnie Johnson invented the Super Soaker, a popular water blaster.

As you read, take notes on how the Super Soaker was created.

- [1] Water fight! You and your friends fill water balloons and squirt guns and head outside. But you have a secret weapon — you’ve loaded up a Super Soaker water blaster. You’re sure to win!

Super Soakers are a familiar part of summer fun, but did you know the toy was inspired by a part meant for a refrigerator? It’s true! An accidental squirt of water sparked the Super Soaker’s creation,¹ but its success took years of hard work.



"Untitled" by Steward Masweneng is licensed under CC0.

Lonnie Johnson, the man behind the Super Soaker, has always been interested in how things work. As a kid, he took his toys apart and put them back together. His dad taught him about electricity and showed him how to fix lamps and other small appliances.² Johnson’s friends nicknamed him “The Professor.”

As a Black kid growing up in Alabama in the 1950s, the law said Johnson wasn’t allowed to go to schools with white students. That law ended in 1963, but change was slow. When Johnson’s high school entered a science fair hosted by the University of Alabama in 1968, Johnson and his team were the only Black students there.

- [5] Johnson had spent almost a year building a robot named Linex. It was 3-and-half feet (1 m) tall and could follow commands to move around. Linex won first place at the science fair!

After high school, Johnson went to Tuskegee University. He earned degrees in mechanical and

1. something that is made
2. a tool that people use to help them do work at home, like a microwave

nuclear engineering.³ Then he worked as an engineer for the Air Force and NASA.

In 1982, Johnson's day job was working on spacecraft in California. In the evening, he worked on his own inventions. One of his projects was a refrigerator that cooled with water instead of the environmentally harmful chemical⁴ used at the time. One evening, he hooked a part he'd made to a bathroom sink so he could test it. It sprayed a strong stream of water across the sink! It made Johnson think that a high-powered water blaster might be a lot of fun.

But he couldn't work on his new idea right away. The Air Force moved Johnson and his family to Nebraska so he could work on the Stealth Bomber.⁵ Once they were settled in, he made the plastic parts for his water blaster in his basement and put it together. Johnson asked his seven-year-old daughter to test it. As he watched her water fight with the other kids, he realized she was able to drench⁶ them before her friends even got close with their squirt guns.

Johnson wanted to make and sell the water blaster himself, but a factory told him it would cost \$200,000 to make 1,000 of them. He didn't have that much extra money, so he decided to find a toy company as a partner. He tried — and failed — for the next 7 years.

[10] In 1989, Johnson went to the American International Toy Fair in New York City. He talked with a toy company. They thought his idea seemed interesting and told him he could come to the company's headquarters in Philadelphia. Johnson jumped at the chance.

Johnson wanted to make an even better water blaster to show the toy company. Instead of keeping the water inside the blaster, he added a 2-liter soda bottle on the top so it could hold even more water. His new model sprayed a stream that flew for more than 39 feet (12 m)!

At the meeting with the toy company, Johnson opened his suitcase. He pulled out the water blaster. Then he shot a stream of water clear across the meeting room! The toy company loved it.

It took a few more years to design one that worked well and could be made in a way that wasn't too expensive for kids and families to buy. The first version,⁷ called the Power Drencher, came out in 1990. The next year, they changed the name to Super Soaker and put out lots of commercials. 20 million Super Soakers were sold that year!

The Super Soaker went on to become one of the best-selling toys of all time. It's now made

-
3. the study and practice of using mathematics and science to do useful things
 4. **Chemical** (*noun*) a substance that cannot be broken down without changing into something else
 5. an American aircraft that could secretly bomb enemies in wartime
 6. **Drench** (*verb*) to soak or wet completely
 7. a particular form of something

close to \$1 billion. Johnson also created a Nerf dart gun which made him even more money. But he didn't spend it on fancy clothes or an expensive car. He used it to build a laboratory in Atlanta to invent and test even more ideas.

- [15] Today, Lonnie Johnson is interested in clean energy.⁸ He and his team have created a rechargeable battery that lasts longer and is safer than other kinds of batteries. They're also working on an engine that runs without putting out any pollution.⁹ Johnson encourages kids to become inventors — local schools' robotics teams are welcome to use his lab.

The Super Soaker has brought a lot of fun to kids everywhere. One of Johnson's other inventions may some day help the whole planet.

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-
8. a way of creating power without using oil or gas
9. materials that make the air dirty or harmful

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. What is the main idea of the text?
 - A. Lonnie Johnson had to work hard to become a successful inventor.
 - B. Lonnie Johnson wanted to invent toys from the time he was a young boy.
 - C. Lonnie Johnson became a famous inventor after creating a new type of robot.
 - D. Lonnie Johnson got the idea for the Super Soaker from working on an aircraft.

2. How does the author organize the information in the article?
 - A. by asking questions about Lonnie's life and answering them
 - B. by comparing Lonnie's inventions to other famous inventions
 - C. by explaining the science that makes Lonnie's Super Soaker shoot far
 - D. by telling the important events in Lonnie's life in the order they happened

3. Which detail from the text shows Lonnie is a curious person?
 - A. "As a kid, he took his toys apart and put them back together." (Paragraph 3)
 - B. "In 1982, Johnson's day job was working on spacecraft in California." (Paragraph 7)
 - C. "Then he shot a stream of water clear across the meeting room!" (Paragraph 12)
 - D. "But he didn't spend it on fancy clothes or an expensive car." (Paragraph 14)

4. The word "inspire" as it is used in paragraph 2 most closely means —
 - A. to draw in.
 - B. to hope for.
 - C. to make larger.
 - D. to cause to happen.

5. How did Lonnie's idea for the Super Soaker change over time?

Open Ended Written Responses

Directions: Write your answers to the following questions in the space provided. Be prepared to share your original ideas.

1. Lonnie Johnson has worked on many different types of projects. If you were an engineer like Lonnie what would you like to invent? What are some ways your inventions could help kids or others?

2. How were mistakes and failure an important part of Lonnie's success?

3. How did Lonnie's reasons for inventing change over time? What does this show about his values?

PAIRED TEXT



Name: _____

Class: _____

Benjamin Banneker and His Amazing Clock

In the days of slavery, he became America's first Black scientist.

By Linda Trice
2018

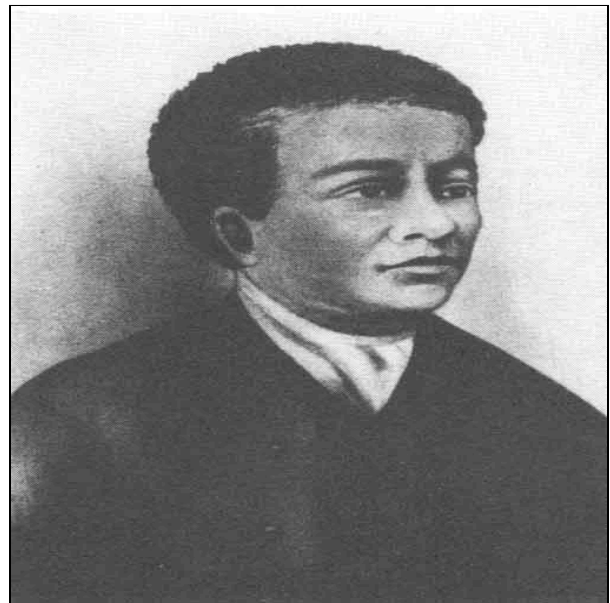
Linda Trice, Ph.D., is a former elementary school teacher and Black Studies professor who now writes children's books. In this text, Trice describes the life of Benjamin Banneker, America's first Black scientist. As you read, take notes on Benjamin Banneker's actions.

- [1] Until he was about 20 years old, Benjamin Banneker had never seen a watch or clock. Born in 1731 in Maryland (one of 13 colonies ruled by England), he worked as a farmer and lived by sunrise and sunset. He didn't need to know the exact¹ time. One day, he saw a watch and was fascinated² with it. Today, no one knows whose watch it was, but he borrowed it and studied how it worked.

Then, he built a clock!

He whittled gears and most other working parts out of the wood. For the few metal parts he needed, he used iron or brass.

What a clock it was! Not only did it tell the time, but its bell rang every hour. People traveled miles to see Benjamin's clock. They were impressed³ by the young Black man who created it.



["Benjamin Banneker"](#) by The original uploader was Kelson at French Wikipedia. is in the public domain.

- [5] At the time, most Black people in the colonies were slaves. Benjamin and his family were free. He was educated at a time when few people of any race knew how to read or write. And at the age of 22, he had designed and built a working clock without having a single lesson or book on

1. **Exact (adjective)** fully correct
2. **Fascinate (verb)** to interest and hold the attention of
3. **Impress (verb)** to make someone admire, like, or respect you more

the subject.

A Love of Math

From the time he was a boy, Benjamin loved to learn, and he especially loved math. His grandmother taught him to read and write using the one book she had, the Bible. He attended school in the winters. Years later, his lifelong friend Jacob Hall recalled that Benjamin often stayed in the schoolhouse while the other students played outdoors. "All his delight was to dive into his books," Jacob said.

Benjamin worked on his family's farm and studied when his work was done. He became known as a man of learning. He made calculations⁴ and wrote letters for neighbors who could not do those things.

Over the years, his parents died, and his sisters married and moved out. As the only son, Banneker took on responsibility⁵ for the farm. At night, he often relaxed outside with his sisters and their families. He played his flute or violin while they sang. Perhaps he looked up at the stars and wondered about them.

Becoming a Scientist

One of Banneker's neighbors shared his interest in the stars and planets. This friend lent him measuring instruments, a telescope, and books. Banneker studied the books and learned how to use the telescope and other instruments.

- [10] He became an astronomer. He could calculate where and when the Sun, Moon, and planets would appear for each day of the year. Tables of this information are called ephemerides (ef-uh-MAIR-rih-deez). They were published once a year in books called almanacs.

Banneker wrote his own almanac using his ephemerides. In 1791, he sent a copy of his tables to Thomas Jefferson. By then, the United States had won independence from England. Maryland was now a state, not a colony. Jefferson had been a leader in the Revolution and later would become the nation's third President. He might have learned about Banneker's talents when Banneker was helping to survey⁶ land for a city that later became the nation's capital, Washington, D.C.

Jefferson was impressed with Banneker's ephemerides. He told Banneker that he would send

-
4. **Calculate** (*verb*) the process of finding something out using math
 5. **Responsibility** (*noun*) a duty for which one is in charge of
 6. **Survey** (*verb*) the act of figuring out the shape, area, and height of a piece of land; to map

the tables to France Royal Academy of Sciences, and he did.

The almanac was published in America, and it was a success. Once again, people came from miles around to meet Banneker. He wrote new almanacs for the next five years.

Benjamin Banneker died on October 9, 1806. During his funeral, his cabin burned down. His wonderful clock was destroyed. It had rung the hour for more than 50 years.

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Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. What is the main idea of the section "Becoming a Scientist"?
 - A. Benjamin Banneker made America's first clock.
 - B. Thomas Jefferson was America's third president.
 - C. The almanac Benjamin Banneker made was very successful.
 - D. As a child, Benjamin Banneker's parents encouraged him to study.

2. How does the author organize the text?
 - A. by sharing quotes from Benjamin Banneker about how he felt about his inventions
 - B. by sharing events in order from Benjamin Banneker's childhood until death
 - C. by telling how Benjamin Banneker solved a difficult problem
 - D. by telling how people still honor Benjamin Banneker today

3. Which of the following sentences uses "lent" in the same way as paragraph 9?
 - A. My mother lent me her earrings to wear for the night.
 - B. The protesters lent their support to the cause.
 - C. Alison lent against the wall after running fast.
 - D. During lent people give up one special thing.

4. What do Benjamin Banneker's actions in paragraphs 1-5 show about what kind of person he was?

Open Ended Written Responses

Directions: Write your answers to the following questions in the space provided. Be prepared to share your original ideas.

1. Benjamin Banneker was inspired to build his amazing clock when he saw a watch. What is a tool or object that you find very interesting or useful (e.g. a phone, a camera, a mechanical pencil, etc.)? What ideas do you have that could make this tool or object even better?

2. The author writes that Benjamin Banneker might have become an astronomer because he "looked up at the stars and wondered about them" (Paragraph 8). What is something that you have questions about or are fascinated by? How could you learn more about what makes you curious? Benjamin Banneker turned his fascination into a career as an astronomer. Could this fascination lead to a future job or hobby you could pursue more?

3. Benjamin Banneker and his family lived during a time where many Black people in America were enslaved. Although he and his family were free Black people, how do you think many people responded to Banneker's achievements? How does his story prove that all people should be given opportunities to follow their dreams, no matter their race, gender, or status?

ANSWER KEYS



Answer key > The Super Soaker Story

by Tracy Vonder Brink ● 2023

1. What is the main idea of the text?

4.RI.KID.2 ^

Determine the main idea of a text and explain how it is supported by key details; summarize the text.

- A. **Lonnie Johnson had to work hard to become a successful inventor.**
- B. Lonnie Johnson wanted to invent toys from the time he was a young boy.
- C. Lonnie Johnson became a famous inventor after creating a new type of robot.
- D. Lonnie Johnson got the idea for the Super Soaker from working on an aircraft.

2. How does the author organize the information in the article?

4.RI.CS.5 ^

Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

- A. by asking questions about Lonnie's life and answering them
- B. by comparing Lonnie's inventions to other famous inventions
- C. by explaining the science that makes Lonnie's Super Soaker shoot far
- D. **by telling the important events in Lonnie's life in the order they happened**

3. Which detail from the text shows Lonnie is a curious person?

4.RI.KID.1 ^

Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

- A. **"As a kid, he took his toys apart and put them back together." (Paragraph 3)**
- B. "In 1982, Johnson's day job was working on spacecraft in California." (Paragraph 7)
- C. "Then he shot a stream of water clear across the meeting room!" (Paragraph 12)
- D. "But he didn't spend it on fancy clothes or an expensive car." (Paragraph 14)

4. The word "inspire" as it is used in paragraph 2 most closely means —

4.RI.CS.4 ^

Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

- A. to draw in.

- B. to hope for.
- C. to make larger.
- D. to cause to happen.

5. How did Lonnie's idea for the Super Soaker change over time?

4.RI.KID.3 ^

Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Answers will vary. Students should explain that Lonnie's idea for the Super Soaker began as a part for cooling a refrigerator and over time became a high-powered water blaster. Lonnie first got the idea for the Super Soaker while he was working at home on a way to cool refrigerators with water. According to the text, "One evening, he hooked a part he'd made to a bathroom sink so he could test it" (Paragraph 7). When he tested it, the water shot across the sink and gave Lonnie the idea for a water blaster. Later when Lonnie was getting ready to show the Super Soaker to the toy company, he changed his model: "Instead of keeping the water inside the blaster, he added a 2-liter soda bottle on the top so it could hold even more water" (Paragraph 11). Over time, Lonnie's idea changed from a part for a refrigerator to a water blaster that could hold lots of water and shoot it across a room!

Answer key > Benjamin Banneker and His Amazing Clock

by Linda Trice ● 2018

1. What is the main idea of the section "Becoming a Scientist"?

4.RI.KID.2 ^

Determine the main idea of a text and explain how it is supported by key details; summarize the text.

- A. Benjamin Banneker made America's first clock.
- B. Thomas Jefferson was America's third president.
- C. **The almanac Benjamin Banneker made was very successful.**
- D. As a child, Benjamin Banneker's parents encouraged him to study.

2. How does the author organize the text?

4.RI.CS.5 ^

Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

- A. by sharing quotes from Benjamin Banneker about how he felt about his inventions
- B. **by sharing events in order from Benjamin Banneker's childhood until death**
- C. by telling how Benjamin Banneker solved a difficult problem
- D. by telling how people still honor Benjamin Banneker today

3. Which of the following sentences uses "lent" in the same way as paragraph 9?

4.RI.CS.4 ^

Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

- A. **My mother lent me her earrings to wear for the night.**
- B. The protesters lent their support to the cause.
- C. Alison lent against the wall after running fast.
- D. During lent people give up one special thing.

4. What do Benjamin Banneker's actions in paragraphs 1-5 show about what kind of person he was?

4.RI.KID.3 ^

Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text including what happened and why, based on specific information in the text.

Help

Answers will vary. Students should explain that Banneker's actions as a young person show that he was curious and intelligent. As a young person, Banneker saw a watch and "he borrowed it and studied how it worked" (Paragraph 1). He used this watch as inspiration to build his own clock. Even at his very young age, "he had designed and built a working clock without having a single lesson or book on the subject" (Paragraph 5). To be able to do this, he must have been very curious about how the watch worked, and extremely clever in order to figure out how to do this all on his own.