

Name _____

enthusiastically

patents

devices

captivated

passionate

claimed

breakthrough

envisioned

Write a complete sentence to answer each question below. In your answer, use the vocabulary word in bold.

1. What is an activity that you do **enthusiastically**?

2. Why should inventors get **patents** for their inventions?

3. What are the two most helpful **devices** you use every day?

4. Name something that recently **captivated** your imagination.

5. How would you know if a person is **passionate** about baseball?

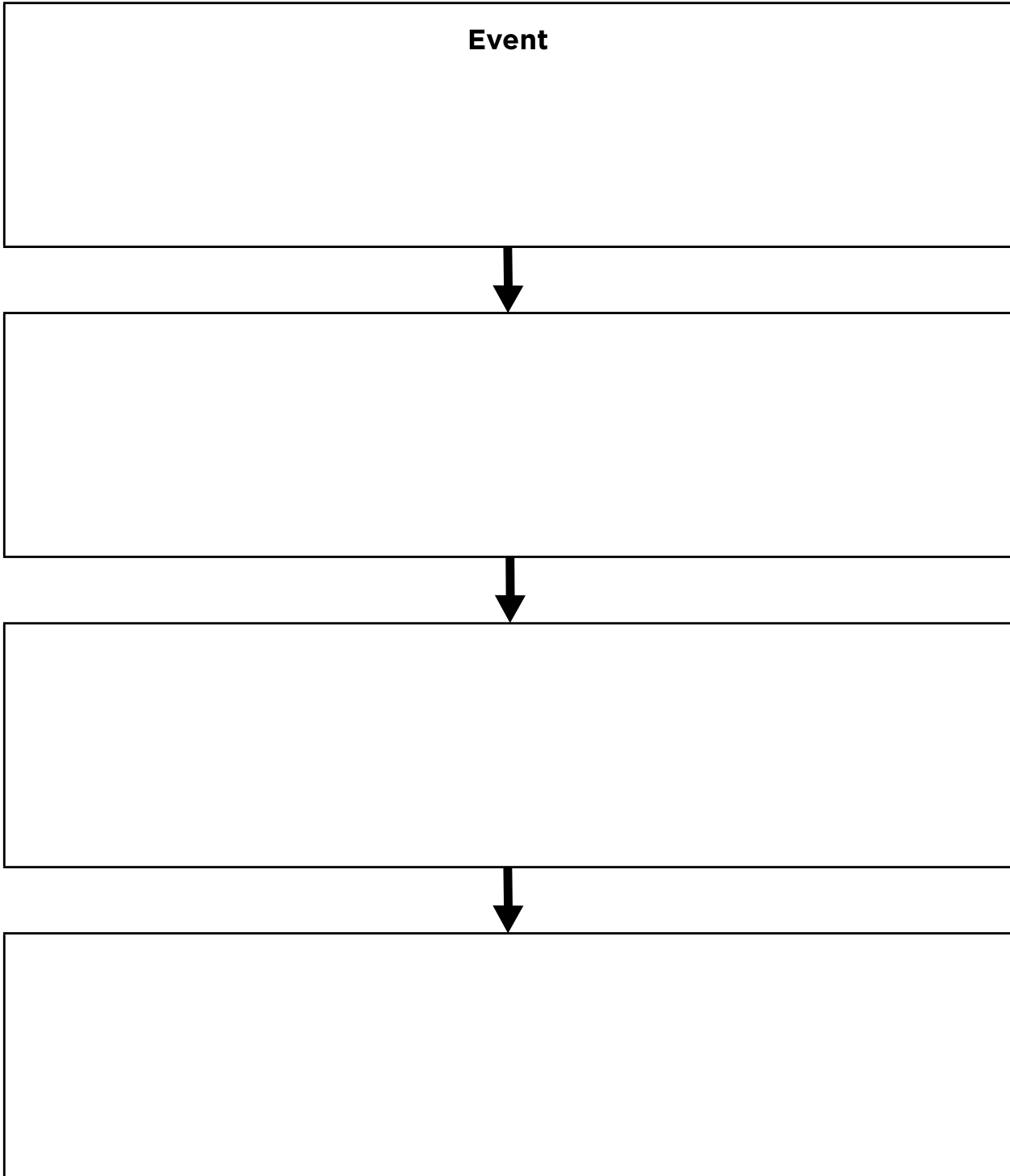
6. If items in the lost and found at school are not **claimed**, what should happen to them?

7. What is a **breakthrough** you have made when trying to learn something new?

8. What is one type of technology you have **envisioned** for the future?

Name _____

Read the selection. Complete the sequence graphic organizer.



Name _____

Read the passage. Use the ask and answer questions strategy to help you understand new facts or difficult explanations.

Mary Anderson and the First Windshield Wipers

The Problem

2 When some people see a problem, they jump in to solve it. Mary
15 Anderson was that type of person.

21 In the early 1900s, few people owned cars. Instead, they rode electric
33 streetcars, or trolleys. On a snowy day in New York City, Anderson
45 watched streetcar drivers struggle to see through their wet windshields.

55 At the time, drivers had two ways to clean their windshields. They
67 could open the windshield's middle window, or they could get out of the
80 streetcar. If drivers opened the window, the driver and riders got wet. If
93 drivers got out of the streetcar, they put themselves in danger.

104 Some people wiped their windows with a piece of onion or carrot. This
117 supposedly left behind an oily film that kept water off. Instead, it often
130 clouded the windshield.

133 The Solution

135 Anderson sympathized with the streetcar drivers. She asked others
144 about the problem. Surely someone had tried to solve it. People told
156 Anderson the problem had been studied. No one had found an answer.
168 They did not think there was one.

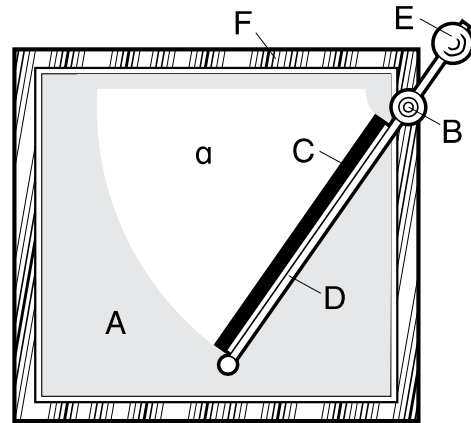
175 Anderson did not accept this. She vowed to find a better way. Her
188 efforts led to a new technology.

194 She drew a diagram of a tool for cleaning windshields. Anderson
205 found someone to make a model for her. It was the first working model
219 of a "windshield wiper."

Name _____

The model had a lever that moved a swinging metal arm (D). The arm held a rubber blade (C). From inside the streetcar, the driver would turn a handle (E) connected to the lever. As the lever moved (B), the blade would “sweep across and clean the window-pane.” The driver and riders stayed safe and dry. In good weather, the wipers could be removed.

Anderson applied for a patent for her “window cleaning device for electric cars . . . to remove snow, ice, or sleet from the window.” A patent allows an inventor to sell his or her invention. Anderson wrote that she hoped to help streetcar drivers with “not being able to see through the front glass in stormy weather.” In 1903 her patent was approved.



Mary Anderson's windshield cleaning device, as shown in her patent application.

The Results

In 1905 Anderson tried to sell her device to a Canadian firm. Although the wipers worked, automobiles were still not very common. The company would not be able to sell many wipers. They would not make enough money. The firm turned her down. Anderson did not try to sell her wipers to anyone else.

Four years later, the first really popular car—Henry Ford's Model T—was released. Almost anyone could afford to buy a Model T. People who drove cars such as the Model T faced the same problem as streetcar drivers. How would they clean their windshields?

By 1913 thousands of cars had a version of Anderson's windshield wipers. Sadly, Anderson never made any money from her patent. Her breakthrough led to the next great idea, though. In 1917 another woman, Charlotte Bridgewood, invented automatic windshield wipers.

Name _____

A. Reread the passage and answer the questions.

1. What time signal in the second paragraph helps you understand why cleaning windshields was such a problem?

2. What four steps did Mary Anderson take after she noticed the problem streetcar drivers had cleaning their windshields?

3. What sequence of events explains why Anderson did not make any money from her patent?

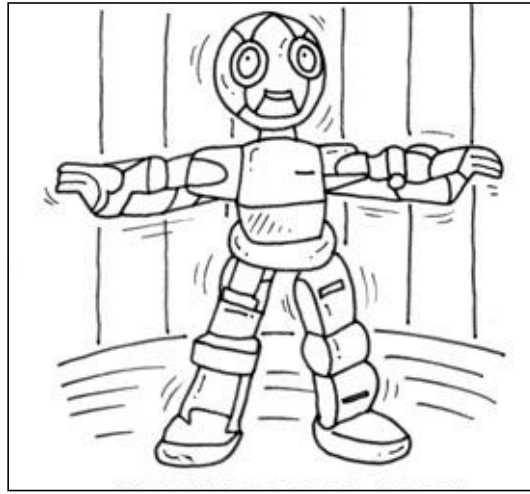
B. Work with a partner. Read the passage aloud. Pay attention to expression and phrasing. Stop after one minute. Fill out the chart.

	Words Read	–	Number of Errors	=	Words Correct Score
First Read		–		=	
Second Read		–		=	

Name _____

Robot Creator

Tomotaka Takahashi lives and works in Japan. As a boy, he enjoyed reading comic books about robots, and he liked to build interesting devices. Now he builds robots that he hopes people will use in everyday life. Tomotaka does not want his robots to look like machines. He envisions them as friendly devices that look like people. He gives his robots extra movements to help them walk and move smoothly. People are captivated by Tomotaka's amazing robots.



Tomotaka's friendly looking robots walk and move like humans.

Answer the questions about the text.

1. How do you know that this is biographical text?

2. Identify three facts about Tomotaka Takahashi that are included in the text.

3. What words and phrases introduce information about different times in Tomotaka's life?

4. How does the illustration help you understand more about the robots that Tomotaka creates?

Name _____

Greek root	Meaning	Examples
<i>ēlektron</i>	amber	electric , electricity
<i>pathos</i>	feelings	sympathy , empathy
<i>technē</i>	art or skill	technology , technical
<i>graph/gram</i>	to write	photograph , telegram

Read each passage below. Use the Greek roots in the box above and sentence clues to help you figure out the meaning of the word in bold. Write the word’s meaning on the line. Then write your own sentence that uses the word in the same way.

1. In the early 1900s, few people owned cars. Instead, they rode **electric** streetcars, or trolleys.

2. Anderson **sympathized** with the streetcar drivers. She asked others about the problem.

3. She vowed to find a better way. Her efforts led to a new **technology**.

4. She drew a **diagram** of a tool for cleaning windshields.

Name _____

A. Read each word in the box and listen for an *r*-controlled vowel sound. Write the word in the correct column below.

heart	scorn	before	spark
square	wear	harsh	coarse
chart	source	scarce	flare

*/är/ as in car**/âr/ as in air**/ôr/ as in born*

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

B. Read each sentence. Circle the words that have one of the *r*-controlled vowel sounds studied above.

1. She has a rare gemstone in her collection.
2. He will board the train at noon on Friday.
3. It is not polite to stare at other people.
4. They saw a deer in the glare of the headlights.
5. Please pour everyone some grape juice.

Name _____

Evidence is details and examples from a text that support a writer’s ideas. The student who wrote the paragraph below cited evidence that shows how the author treated the topic of the text.

Topic sentence	→	In “Mary Anderson and the First Windshield Wipers,” the author focused on Mary Anderson’s invention of windshield wipers.
Evidence	→	The author chose to focus on this topic because windshield wipers are widely used, and not many people realize that a woman invented them. In addition, Anderson’s invention paved the way for other breakthrough inventions.
Concluding statement	→	By explaining Mary Anderson’s creative ability to solve tough problems, the author made clear that her invention was an important accomplishment.

Write a paragraph about two texts you have chosen that discuss the same topic. Show how the authors treated the topic. Cite evidence from the texts. Remember to clearly state the topic and use conjunctions and commas correctly in complex sentences.

Write a topic sentence: _____

Cite evidence from the text: _____

End with a concluding statement: _____
