8th Grade, Lewis County Middle School NTI Day 18

Contents:

- Language Arts
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Summarizing Informational Texts (RI.8.2) Day 18

You've read a great article. How do you tell someone what it's about? You give a summary--a brief restatement, in your own words, of the most important ideas. The summary itself is objective, meaning you do not include your opinions, beliefs, or judgements.

Read the passage below. As you do, think about what you would include in a summary of it.

The influence of the Romn Empire was the single most important force in early Europe. Without the unifying effect of the Empire, regional or tribal differences would have prevailed, and Europe would have remained a land of separate states, each avoiding contact with the others.
Instead, Rome and its culture pulled the different areas together. Spain, for example, was a stable and secure part of the Roman Empire, and Roman culture had a strong influence there. Aqueducts, such as the one in Segovia, Spain, are examples of the Empire's expansive reach. A less visible sign of Roman influence is Spain's language, which is firmly rooted in Latin, the language of the Romans.

Topic (1-3 words that describes what the text is about)	Influence of the Roman Empire
Main/Central Idea (1 sentence answering, "What does the author want us to know about the topic?")	The Roman Empire had a far-reaching and lasting influence on Europe.
Supporting Detail (An important point that backs up the central idea)	Aqueducts are architectural evidence of the Roman Empire's presence in Spain.
Supporting Detail (An important point that backs up the central idea)	The Spanish language's Latin roots are another piece of evidence of Rome's influence.
Summary (Put everything together in a 2-3 sentence summary of the key ideas in the text)	The Roman Empire left signs of its presence in Europe. The aqueduct in Segovia, Spain, and the roots of the Spanish language are two signs of Rome's lasting impact on Spain.

By summarizing a text's central ideas and supporting details, you can check your understanding of and remember the most important points.

Define these key terms in your own words

Summary -
Objective -
Central idea -
Supporting Detail -

Understand English Word Origins -Day 18

By Pilar Rivera

Some objects originate from the object's appearance. You know what a cloak is--a sleeveless garment worn draped over the shoulders. Now close your eyes and picture the shape of a cloak. *Cloak* comes from an Old French word, *cloque*, which means "bell." So, the name of the object was a transference from the shape of the object.

Some word origins, or etymologies, are fascinating because they tell us what an object used to be. Think about what a ballot is--the list of candidates that we use when we vote to choose elected officials. Ballots are mostly electronic now, but for several centuries they were paper documents. How did people vote before paper was readily available? They dropped pebbles or small balls in one of two boxes or piles to choose leaders or to make community decisions. *Ballot* comes from the Italian word *pallotte*, which itself is a diminutive form of *palla*, meaning b*all*.

We want to answer the question: "*What information should be included in a summary of this portion of the essay?*"

When creating a summary, **identify (1) the text's topic**, then **(2) its central idea**, which may only be implied, and finally, **(3) the important supporting details**.

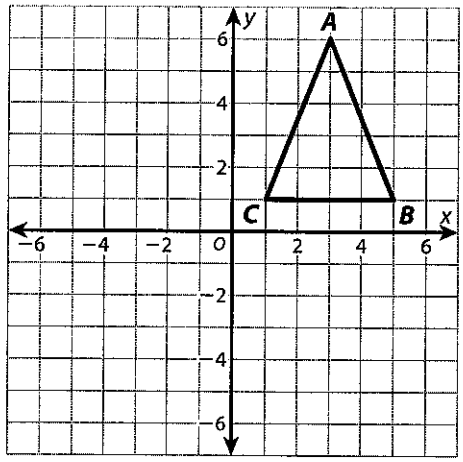
Reread the text and fill in the chart below with information that is used in the summary.

Topic (1-3 words that describes what the text is about)	Where English words come from
Main/Central Idea (1 sentence answering, "What does the author want us to know about the topic?")	English words...
Supporting Detail (An important point that backs up the central idea)	Words like "cloak"...
Supporting Detail (An important point that backs up the central idea)	
Summary (Put everything together in a 2-3 sentence summary of the key ideas in the text)	

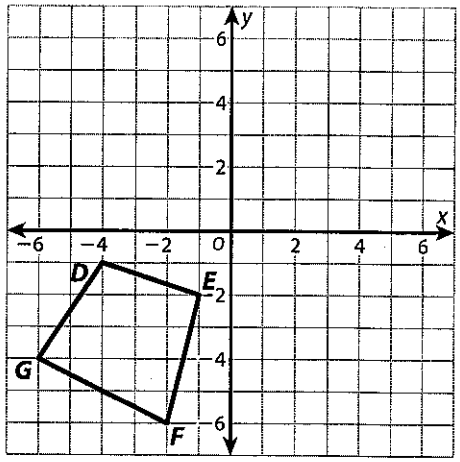
Performing Sequences of Rigid Transformations

➤ **Perform the given ~~sequence of~~ transformations on each figure. ~~Write the coordinates of the vertices of the final image. Then tell whether the final image is congruent to the original figure.~~** You may use the rules or count on the graph.

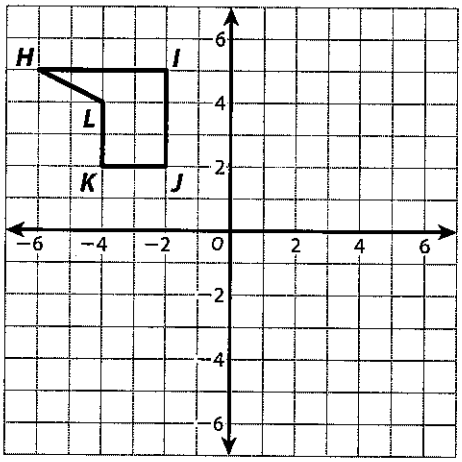
1. Reflect across the *x*-axis.
~~Translate 5 units left.~~ Rule $(X, -Y)$



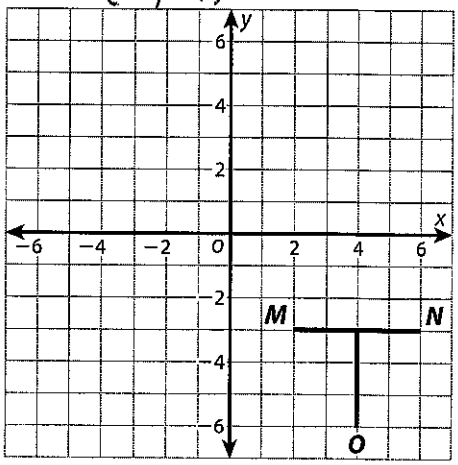
2. Rotate 90° clockwise around the origin.
~~Reflect across the *x*-axis.~~ Rule $(Y, -X)$



3. Translate 2 units right and 4 units down.
~~Rotate 180° around the origin.~~ $(X+2, Y-4)$



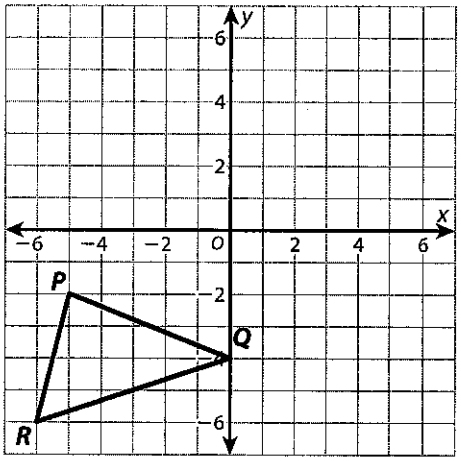
4. Reflect across the *x*-axis. ~~Rotate 90° counterclockwise around the origin.~~
Rule $(X, -Y)$



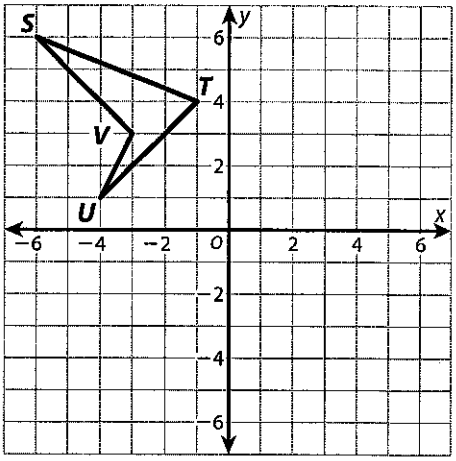
Day 18

Performing Sequences of Rigid Transformations *continued*

5 Reflect across the *y*-axis.
~~Translate 5 units up.~~ Rule $(-x, y)$
~~Rotate 90° clockwise around the origin~~.



6 Translate 6 units right. $(x+6, y)$
~~Rotate 180° around the origin~~.
~~Reflect across the y-axis~~.



7 ~~How did you determine the label for each vertex when you transformed the triangles in problem 5?~~

Day 18

NTI 18

11.1 Traits

Jones 8th grade

Tyler has free earlobes like his father. His mother has attached earlobes. Why does Tyler have earlobes like his father? In this section you will learn about traits and how they are passed on to offspring. Look at your earlobes. Are they free or attached? (Figure 11.1). The type of earlobes you have is a trait that you inherited from your parents. A **trait** is a characteristic that an organism can pass on to its offspring.

Studying traits

Breeds and traits Did you know there are over 150 dog breeds, but they are all the same species (*Canis familiaris*)? A pug looks completely different than a black lab, yet they both came from the same ancestors. For thousands of years, dog breeders have selected certain traits to produce dog breeds for different purposes. People knew how to breed in order to obtain certain traits long before scientists knew about DNA, chromosomes, or meiosis.

Genetics is the study of heredity An organism's **heredity** is the set of traits it receives from its parents. **Genetics** is the study of heredity. Ancient dog breeders thought that the traits inherited by a dog were a blend of those from the mother and father. For example, a large dog crossed with a small dog in many cases would produce a medium-sized dog—a blend of both parents. It turns out that heredity is not that simple. A monk named Gregor Mendel was one of the first to find that out.

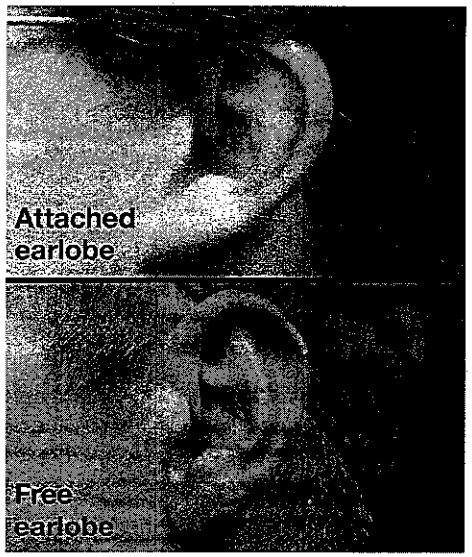


Figure 11.1: *The type of earlobes you have is a trait you inherited from your parents.*

VOCABULARY

trait - a characteristic that an organism can pass on to its offspring.

heredity - a set of traits an organism receives from its parents.

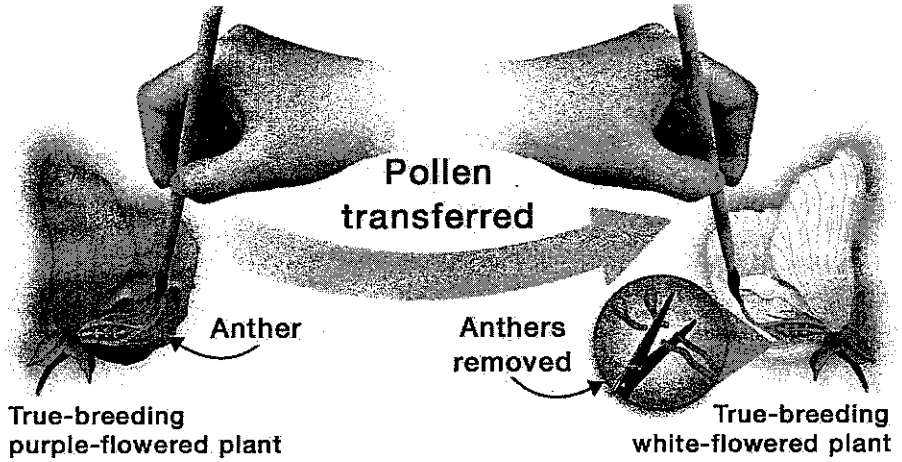
genetics - the study of heredity.

Mendel's experiment

Pea plant traits Mendel studied pea plants and identified several traits that had only two forms. For example, he observed that peas produced plants with either purple flowers or white flowers. Figure 11.4 shows four of the traits Mendel studied and their two forms.

True-breeding plants For his experiments, Mendel was careful to start out with true-breeding plants. When a **true-breeding plant** self-pollinates, it will always produce offspring with the same form of the trait as the parent plant. For example, a true-breeding plant with purple flowers will only produce plants with purple flowers.

Mendel's procedure for his experiments Mendel wanted to find out what would happen if he crossed two plants with different forms of a trait. He used a method called cross-pollination. In **cross-pollination**, the parts that contain pollen (anthers) are removed from one plant so it cannot self-pollinate. Next, the pollen from the other plant is used to fertilize the plant without pollen. The example below shows how Mendel crossed a purple-flowered plant with a white-flowered plant.



Four Pea Traits

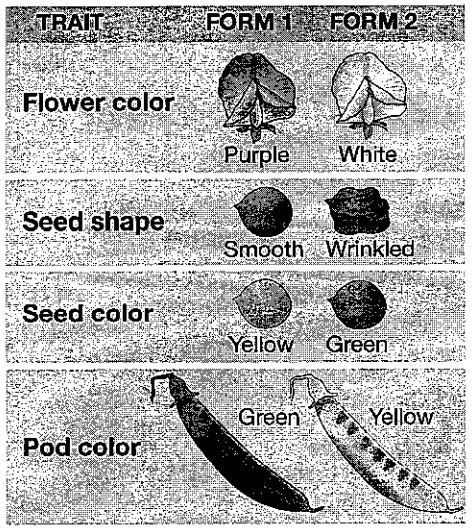


Figure 11.4: *Four of the traits Mendel studied in pea plants.*

VOCABULARY

true-breeding plant - a plant that will always produce offspring with the same form of a trait when it self-pollinates.

cross-pollination - when the pollen from one plant is used to fertilize another plant.

Mendel's conclusions

Second generation results

Mendel got similar results for the second generation of all the traits he studied. The data from four of the traits he studied is shown in Table 11.1. For practice, calculate the ratio for the last three traits.

Table 11.1: The second generation from Mendel's peas

Trait	Form 1	Form 2	Ratio
Flower color	purple 705	white 224	3:1
Seed shape	round 5,474	wrinkled 1,850	?
Seed color	yellow 6,002	green 2,001	?
Pod color	green 428	yellow 152	?

Genes

From the results, Mendel proved that all traits do not blend. For instance, purple flowers mixed with white flowers did not produce pink flowers. Mendel concluded that traits like flower color must be determined by individual *units*. Today, we call those units genes. A **gene** is a unit that determines traits.

Dominant and recessive alleles

Mendel concluded that for each trait he studied, a pea plant must contain *two forms* of the same gene. Different forms of the same gene are called **alleles**. The **dominant allele** is the form of a gene that, when present, covers up the appearance of the recessive allele. The **recessive allele** is the form of a gene that is hidden when the dominant allele is present. The gene for flower color in peas has a dominant allele that causes purple flowers and a recessive allele that causes white flowers (Figure 11.6).

Alleles are different forms of the same gene. Organisms have at least two alleles for each gene—one from each parent.

VOCABULARY

gene - a unit that determines traits.

alleles - different forms of a gene.

dominant allele - the form of a gene that, when present, covers up the appearance of the recessive allele.

recessive allele - the form of a gene that is hidden when the dominant allele is present.

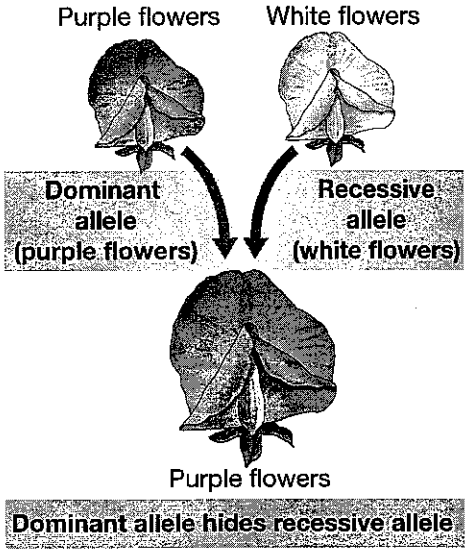


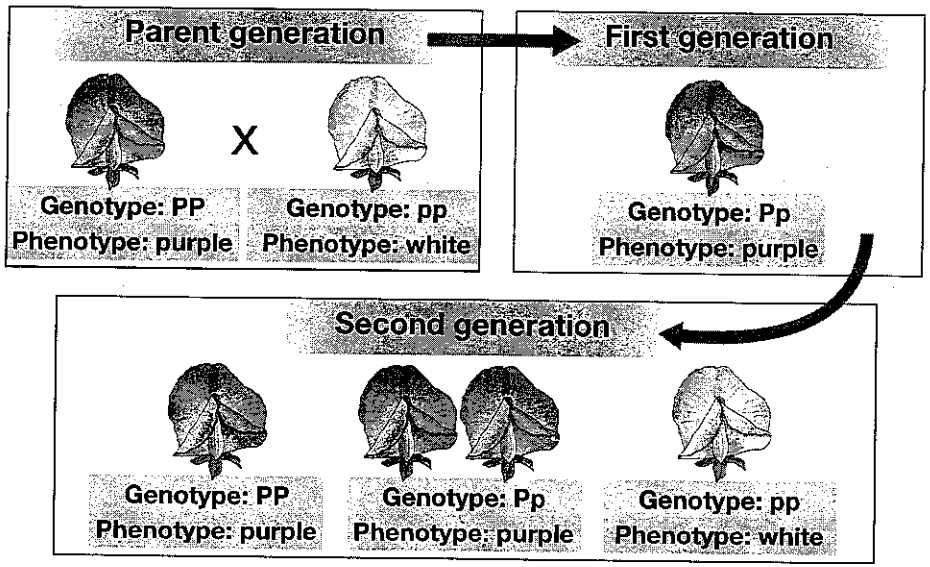
Figure 11.6: *Flower color in peas is determined by two alleles of the gene—one from each parent.*

Phenotype and genotype

An organism's **phenotype** is the form of a trait that it displays. For flower color, a pea plant can display a phenotype of purple or white flowers. An organism's **genotype** is the alleles of a gene it contains. Based on his data, Mendel concluded that a phenotype can be determined by more than one genotype.

Symbols for genes

Mendel used upper and lower case letters to symbolize the alleles of a gene. For flower color, he used upper case ***P*** for purple (the dominant allele) and lower case ***p*** for white (the recessive allele). A pea plant with purple flowers could have a genotype of either ***PP*** or ***Pp***. A pea plant with white flowers could only have a genotype of ***pp***. As long as at least one dominant allele is present, the plant will always have a phenotype of purple flowers. Figure 11.7 shows the genotypes and phenotypes of four pea plant traits. The graphic below shows the alleles present in each generation of pea plants from Mendel's experiment.



VOCABULARY

phenotype - the form of a trait that an organism displays.

genotype - the alleles of a gene an organism contains.

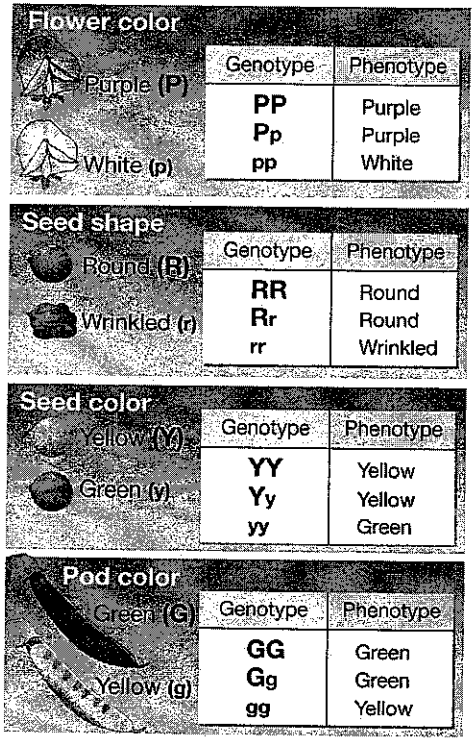


Figure 11.7: *The genotypes and phenotypes of four of the traits Mendel studied in pea plants.*

Jones 8th grade Science

NTI Day 18-Heredity-Traits.

Materials

- CPO life science Ebook that is uploaded into google classroom
- 5 question quiz

Task

- Students read pages 214, 216, 218, &-219 in chapter 11.
- Students complete a 5 question quiz.

Quiz-Section 11.1

1. A(n) _____is always expressed if it is present in an organism.

a) Alleles
b) Trait
c) Dominate allele
d) Recessive allele
e) Gene

2. A unit that determines traits is a(n)_____.

a) Alleles
b) Trait
c) Dominate allele
d) Recessive allele
e) Gene

3. The organism's _____can't be seen because it is the actual alleles of a gene that the organism contains.

a) Alleles
b) Genotype
c) Dominate allele
d) Recessive allele
e) Phenotype

4. A(n) _____is only expressed in an organism if no dominant allele is present.

a) Alleles
b) Trait
c) Dominate allele
d) Recessive allele
e) Gene

5. The organism's _____ for a given trait can be seen because it is the form that the organism displays.

a) Alleles
b) Genotype
c) Dominate allele
d) Recessive allele
e) Phenotype

Social studies
Day 18

Harriet Tubman, soldier and spy for Union Army during Civil War

By History.com, adapted by Newsela staff on 11.11.19
Word Count **938**
Level **1040L**

Image 1. Harriet Tubman. Photograph by Benjamin F. Powelson circa 1868 and 1869. Photo from: Wikimedia Commons/Swann Galleries

Harriet Tubman was called "Moses" for leading enslaved people in the South to freedom up North. That's only part of the story, though. She fought the institution of slavery well beyond her role as a conductor for the Underground Railroad. Tubman was also a soldier and spy for the Union Army during the Civil War. She became the first woman to lead an armed military operation in the United States in what is known as the Combahee Ferry Raid.

By January 1, 1863, when the Emancipation Proclamation declared the end of slavery in the Confederate states, Tubman had been in South Carolina as a volunteer for the Union Army. She had already established herself in Boston as a prominent champion for freeing enslaved people. Because of this, Massachusetts Governor John Andrew requested that she set out for Hilton Head, South Carolina. The area had fallen to the Union Army early in the war.

Goal Was To Defeat And Destroy Slavery

For months, Tubman worked as a laundress and a nurse, until she was given orders to form a spy ring. She had proven herself very skilled at gathering secret information when she led the Underground Railroad. In her new role, Tubman took leadership of a secret military mission in South Carolina's low country.

Brandi Brimmer is a slavery historian and history professor at Spelman College in Georgia. Tubman's goal was to defeat and destroy the system of slavery, Brimmer said.

Tubman partnered with Colonel James Montgomery. He commanded the Second South Carolina Volunteers, a black regiment, and wanted to free enslaved people. Together, the two planned a raid along the Combahee River. The goal was to rescue enslaved people, bring freed men into the Union Army and destroy some of the wealthiest rice plantations in the region.

Montgomery had around 300 men. Tubman rounded up eight scouts, who helped her map the area and send word to the enslaved near the river when the raid would take place.

HARRIET TUBMAN.

Kate Clifford Larson is a historian and the author of "Bound for the Promised Land: Harriet Tubman, Portrait of an American Hero." "She was fearless and she was courageous," Larson said. "She could get black people to trust her and the Union officers knew that they were not trusted by the local people."

Committed Everything To Memory

The night of June 1, 1863, Tubman and Montgomery boarded a ship called the John Adams. They led two other gunboats, the Sentinel and Harriet A. Weed, toward the Combahee River. On the way there, the Sentinel hit land and got stuck, causing troops from that ship to transfer to the other two boats.

As explained in Catherine Clinton's book, "Harriet Tubman: The Road to Freedom," Tubman was not able to read or write. She couldn't write down any intelligence she gathered, so instead, she committed everything to memory. She guided the ships toward points near the shore where fleeing slaves were waiting and Confederate property could be destroyed, all while leading the ships away from known torpedoes.

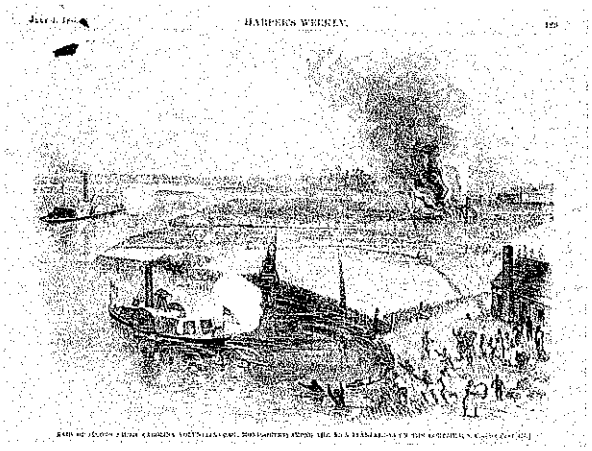
Around 2:30 a.m. on June 2, the John Adams and the Harriet A. Weed split up along the river to carry out different raids. Tubman led 150 men on the John Adams toward the fugitives. Tubman, later commenting on the raid, said once the signal was given, she saw fugitive slaves running everywhere, with women carrying babies, crying children, squealing pigs, chickens and pots of

rice. Rebels tried chasing down the slaves, firing their guns on them. One girl was reportedly killed.

As the escapees ran to the shore, black troops in rowboats transported them to the ships.

More than 700 escaped slavery and made it onto the gunboats. Troops also disembarked near Field's Point, South Carolina. They torched plantations, fields, mills, warehouses and mansions, causing a humiliating defeat for the Confederacy.

"She-Moses" Was A Hero But Wasn't Paid



The ships docked in Beaufort, South Carolina, where a reporter from the Wisconsin State Journal heard what had happened on the Combahee River. He wrote a story about the "She-Moses" but never mentioned Tubman's name. He wrote that Montgomery's "gallant band of 300 soldiers, under the guidance of a black woman, dashed into the enemies' country." They freed 800 slaves without losing a single soldier, he wrote.

In July 1863 people learned that Tubman was the mysterious heroine of the raid. Franklin Sanborn, the editor of Boston's Commonwealth newspaper, picked up the story and included her name in it.

Despite the mission's success, Tubman was not paid for her efforts on the Combahee Ferry Raid. She had demanded several times that the government pay her for her duties as a soldier. "She was denied because she was a woman," says Larson.

"By the time we get to the Emancipation Proclamation, we have Lincoln setting out concrete spaces for black men and their recognition in military service," Brimmer said. Even though black men were being welcomed into the military, there was no vision for women's role in the military, particularly black women, she said.

Tubman would eventually receive pay from the military, but only as the widow of a black Union soldier she married after the war. She was never paid for her courageous service as a soldier.

Social Studies
Day 18

Quiz

1 Read the following claim.

Tubman's work bringing enslaved people to safety through the Underground Railroad was crucial to the success of the Combahee Ferry Raid.

Which sentence from the article provides the BEST support for the above statement?

(A) "She could get black people to trust her and the Union officers knew that they were not trusted by the local people."

(B) As the escapees ran to the shore, black troops in rowboats transported them to the ships.

(C) Despite the mission's success, Tubman was not paid for her efforts on the Combahee Ferry Raid.

(D) They freed 800 slaves without losing a single soldier, he wrote.

2 Read the paragraph from the section "She-Moses Was a Hero But Wasn't Paid."

Despite the mission's success, Tubman was not paid for her efforts on the Combahee Ferry Raid. She had demanded several times that the government pay her for her duties as a soldier. "She was denied because she was a woman," says Larson.

What conclusion is BEST supported by the paragraph above?

(A) Confederates were not permitted to be paid as soldiers.

(B) Fugitive slaves were not permitted to be paid as soldiers.

(C) Black people were not permitted to be paid as soldiers.

(D) Women were not permitted to be paid as soldiers.

3 According to the article, why did Massachusetts Governor John Andrew request Harriet Tubman's assistance with the Combahee Ferry Raid?

(A) She was well known as someone who helped fugitive slaves.

(B) She had significant military experience.

(C) She knew the Combahee River region very well.

(D) She could ask former slaves to assist in the raid.

4 How did the Combahee Ferry Raid affect Harriet Tubman?

(A) She received payment for her part in the raid only after many years of demanding it.

(B) She was ignored by the press but eventually received a financial reward.

(C) She was hailed as a hero but never received any payment for her efforts.

(D) She remained the unnamed leader of the Combahee Ferry Raid until she died.