



# WORKSHEET ON CHEMICAL VS PHYSICAL PROPERTIES AND CHANGES

Keep this in your binder as a study guide! You will have a quiz on this next class!

**Background:** Keeping the difference between physical and chemical properties as well as changes can be a challenge! This worksheet will help you do this. First, use the book to define the following terms.

VOCABULARY WORD	DEFINITION
Physical Property	
Physical Change	Change in which the identity of the substance does NOT change
Chemical Property	
Chemical Change	

**Part One:** Physical or Chemical Property? Fill in the chart using the vocabulary words or phrases provided.

**Vocabulary words**

Boiling point	Ability to rust	Melting point	Brittleness	Reactivity with vinegar
elasticity	Flammability	Density	Transparency	ductility

Each word is used once. Define the word when done!

Chemical Property	Definition
	• The ability to burn
	• Reacts with oxygen to produce rust

Physical Property	Definition
	• The property of letting light pass through something

**Part Two:** Physical or Chemical Change? Indicate with a 'P' or a 'C' which type of change is taking place.

1. _____ glass breaking	10. _____ mixing salt and water
2. _____ hammering wood together	11. _____ mixing oil and water
3. _____ a rusting bicycle	12. _____ water evaporating
4. _____ melting butter	13. _____ cutting grass
5. _____ separate sand from gravel	14. _____ burning leaves
6. _____ bleaching your hair	15. _____ fireworks exploding
7. _____ frying an egg	16. _____ cutting your hair
8. _____ squeeze oranges for juice	17. _____ crushing a can
9. _____ melting ice	18. _____ boiling water



## Context Clues 3.4

**Directions:** read each sentence and determine the meaning of the word using cross sentence clues or your prior knowledge. Then, explain what clues in the sentence helped you determine the word meaning.

1. **lamentable:** Lia, it is **lamentable** that you and Derrick separated, but it has almost been a year. Don't you think that it's about time to move on with your life?

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

2. **adorn:** To prepare the cafeteria for the big dance, the planning committee **adorned** the walls with colorful streamers and balloons.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

3. **ambuscade:** Ducked down in the tall grass, the warriors waited patiently on the hillside for the next group unfortunate enough to walk through their **ambuscade**.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

4. **uninhabitable:** The flood caused toxic molds to grow on the walls of our old house and now it is **uninhabitable**.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

5. **opaque:** Brian attempted to see who was riding inside of the limousine, but the **opaque** window tinting prevented him from getting even the slightest glimpse.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

6. **parsimonious:** Due to his **parsimonious** nature, Brian enjoys borrowing movies from the library and copying them, buying day old bread from the bakery, and recording music from the radio even though he has a lot of money.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

7. **insolence**: Katie talked back to the principal and called him by his first name so he sent her to the office for her **insolence**.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

8. **rebuke**: After the players got caught cheating on the exam, the coach **rebuked** them harshly.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

9. **eminence**: Large companies and wealthy clients wanted Donzo to take their pictures, as Donzo was well known for his **eminence** in photography.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

10. **obsequies**: "Teacher, you forgot to assign homework," said James, expressing the **obsequies** nature that made him unpopular.

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

11. **aversion**: John gave me two tickets to the basketball game, but I have an **aversion** to going to crowded places like sports arenas, so would you like to have them?

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

12. **pertinent**: The principal concluded his speech, "Now that I have introduced the new program, I will answer a few questions, so long as they are pertinent to the matter at hand."

Definition: \_\_\_\_\_

What clues in the sentence lead you to your definition?

Name: \_\_\_\_\_

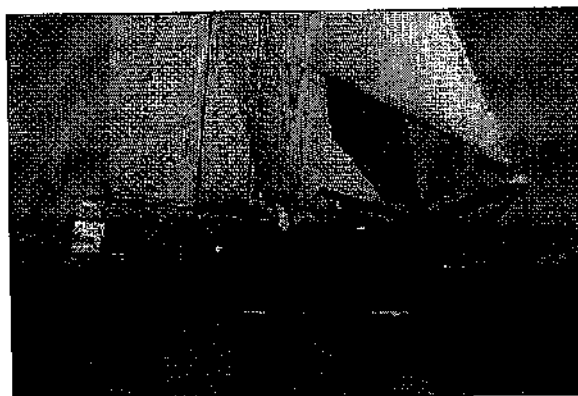
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## **Bound for a New Life**

By Ruth Spencer Johnson  
2006

*Jamestown in Virginia was the first permanent English colony in North America. In this short story, two children describe their experiences living and working in Jamestown. As you read, take notes on the similarities of Robert's and Sarah's experiences in Jamestown.*

In 1607, 104 English men and boys arrived in North America to start a settlement.<sup>1</sup> The settlement went through many struggles but continued to grow. More laborers were needed to work on the farms and in town, so the Virginia Company<sup>2</sup> brought more people from England. Some went willingly to Virginia. Others were children who were taken against their will—kidnapped or tricked into service. Around 1620, the Lord Mayor of London began sending orphans from London's streets to work in Virginia. Here are the tales two of those children might have told.



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### **Robert's story**

- [1] By the time I was 12, both my parents were dead. Soon I was living on the streets of London, begging for food. One terrible night, two men grabbed me and told me I was going to Virginia, like it or not.

The men said that children like me were a disgrace<sup>3</sup> to London, that our city was too full of orphans, begging and stealing on the streets. The planters in Virginia needed workers, so we were being rounded up and sent to Jamestown to work for the Virginia Company. That meant that I would be bound to work without pay until I turned 21. His words sent fear through my heart!

The other man explained that I would work in the tobacco fields or learn a trade. Then, after I'd served out my term, I'd be free. He said that hard work would keep me out of trouble!

When I arrived in Jamestown, I worked for the Virginia Company. "If you work hard and serve us well," they said, "we will treat you fairly. But if you are lazy or dishonest, or you try to run away, your life will not be easy."

- [5] Life in Virginia was even harder than I had imagined. I worked from dawn to dark, planting and weeding

1. community
2. a company that created new settlements in Virginia
3. **Disgrace** (*noun*) something that causes a loss of respect

tobacco. My clothes became ragged;<sup>4</sup> my belly was never full. I existed mostly on corn gruel,<sup>5</sup> peas, and a little bread. Many other servants died from heat and disease, but somehow I survived.

Today I turn 21. At last, I'm a free man! The company has given me the 50 acres of land they promised me. I am luckier than many. The company worked me hard, but I also learned woodworking skills. Carpenters are in great demand here, so I'm sure to find employment. After nine long years, I finally have hope for my future!

## Sarah's story

In London my family was poor. One day in 1622, when I was 14, a man offered me a chance to sail to America. "America is the land of opportunity for a poor girl like you," he claimed. "Just work a few years in Virginia to pay for your passage on the ship, and then you'll be free to make your own life."

I listened, thought, and finally decided to sign the papers. The agreement was called an indenture. It meant that I was bound to work for seven years in exchange for food and shelter. I was ready for a new life in Virginia.

Some opportunity! I had signed up for a chance to work my fingers to the bone in Jamestown. For seven years, I cleaned and cooked, washed and mended.<sup>6</sup> I tended<sup>7</sup> my master's children and weeded his vegetable garden. His wife was a mean-spirited woman who beat me for the smallest mistake.

[10] Now, at last, my term of service is over. I have married a man who was also indentured. Now we have our own farm near Jamestown. I guess America is a land of opportunity after all!

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- 4. **Ragged** (*adjective*) old and worn; frayed
- 5. corn boiled in milk or water, similar to grits or mush
- 6. **Mend** (*verb*) to repair
- 7. **Tend** (*verb*) to care for or look after

## 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. Many children who went to work in America tried to return to their home country.
  - B. Children were better paid for their services in American than in their home countries.
  - C. Some children had to work hard for no money before they were free to live in America.
  - D. Children did not find the opportunities they were promised when they came to America.
  
2. Which quote from the text highlights Robert's life in Jamestown as a child?
  - A. "we will treat you fairly." (Paragraph 4)
  - B. "My clothes became ragged; my belly was never full." (Paragraph 5)
  - C. "Many other servants died from heat and disease" (Paragraph 5)
  - D. "The company has given me the 50 acres of land they promised me." (Paragraph 6)
  
3. How does paragraph 7 contribute to Sarah's story?
  - A. It shows that Sarah is not close with her family.
  - B. It suggests that Sarah has visited America before.
  - C. It shows how Sarah was talked into going to America.
  - D. It suggests that the man is going to be a main character.
  
4. What does Sarah mean when she says, "[I] work my fingers to the bone" in paragraph 9?
  - A. She works very hard.
  - B. She has bony fingers.
  - C. She hurt her hands while working.
  - D. She does simple tasks with her hands.
  
5. Which quote supports the idea that "America is a land of opportunity"? (Paragraph 10)
  - A. "if you are lazy or dishonest, or you try to run away, your life will not be easy." (Paragraph 4)
  - B. "The company has given me the 50 acres of land they promised me." (Paragraph 6)
  - C. "It meant that I was bound to work for seven years in exchange for food and shelter." (Paragraph 8)
  - D. "Some opportunity! I had signed up for a chance to work my fingers to the bone in Jamestown." (Paragraph 9)
  
6. How did life in Virginia compare for Robert and Sarah?
  - A. Both of them were educated.
  - B. Both of them agreed to work in America.
  - C. Neither of them was properly cared for.
  - D. Neither of them wanted to go to America.

7. How do both Robert and Sarah feel at the end of their terms of service?
- A. happy for what they have in America
  - B. sad that they had to leave their home country
  - C. angry that they were tricked into going to America
  - D. thankful for the people who helped them in America
8. How is Robert's experience in America different from Sarah's experience? Use details from the text to support your answer.

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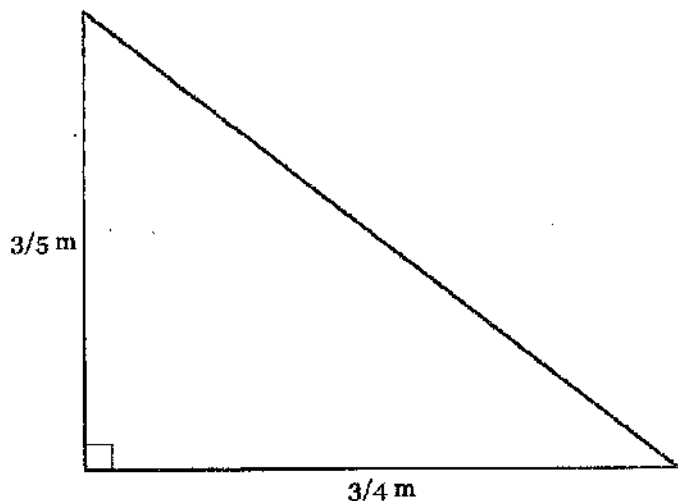
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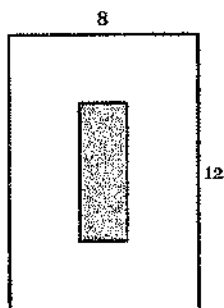
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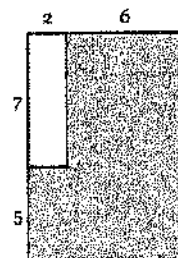
8. What is the area, in square meters, of the shape below?  
Express your answer as a fraction in simplest form.



9. One rectangle is "framed" within another. Find the area of the shaded region if the "frame" is 3 units wide.



10. Given the two rectangles below. Find the area of the shaded region.



11. Find the value of  $x$  in the equation below.

$$19.8 = 1.4 + x$$

12. Find the value of  $x$  in the equation below.

$$18 = 5x$$

Name: \_\_\_\_\_

1. Evaluate the expression shown below and write your answer **as a fraction** in simplest form.

$$\frac{7}{15} + \frac{2}{15}$$

2. Evaluate the expression shown below and write your answer **as a fraction** in simplest form.

$$\frac{3}{20} - \frac{1}{8}$$

3. Perform the operation and reduce the answer fully. Make sure to express your answer as a simplified fraction.

$$\frac{1}{4} \times 2$$

4. Perform the operation and reduce the answer fully. Make sure to express your answer as a simplified fraction.

$$\frac{1}{2} \times \frac{1}{3}$$

5. Convert  $\frac{68}{7}$  into a mixed number.

6. Convert  $9\frac{6}{7}$  into an improper fraction.

7. The area of the triangle below is 17.39 square feet. What is the length of the base?

