



# 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.

<u>VOCABULARY WORD</u>	<u>DEFINITION</u>
Physical Property	
Physical Change	<b>Change in which the identity of the substance does NOT change</b>
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



# KEY: WORKSHEET ON CHEMICAL VS PHYSICAL PROPERTIES AND CHANGES



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**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	Characteristics of matter that can be seen through direct observation such as density, melting point, and boiling point
Physical Change	Change in which the identity of the substance does NOT change
Chemical Property	Characteristic of matter that can only be observed when one substance changes into a different substance, such as iron into rust
Chemical Change	Transforms one type of matter into another kind, which may have different properties.

**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	Freezing point	Transparency	ductility

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

Chemical Property↓	Definition
• flammability	• The ability to burn
• Ability to rust	• Reacts with oxygen to produce rust
• Reactivity with vinegar	• Reacts with vinegar to produce new substances

Physical Property↓	Definition
• transparency	• The property of letting light pass through something
• Boiling point	• Temperature at which a substance goes from liquid to gas
• Melting point	• Temperature at which a substance goes from solid to a liquid
• Brittleness	• Tendency to crack or break
• Ductility	• Ability to bend without breaking
• Elasticity	• Ability to be stretched or compressed then return to original size
• Density	• Mass per unit volume

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

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