



# 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	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



# 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

