

Define the following terms:

1. Physical change:

2. Chemical change:

3. Physical property:

4. Chemical property:

5. Melting point:

6. Freezing point:

7. Boiling point:

8. Solubility:

9. Rusting:

10. Tarnishing:

Complete the following:

1. Hydrogen + Oxygen \longrightarrow

2. Carbon + Oxygen \longrightarrow

3. Methane + Oxygen \longrightarrow

4. Nitrogen + Hydrogen \longrightarrow

5. Iron + Sulphur \longrightarrow

Answer the following questions:

1. What is the difference between Physical change and chemical change?

Physical change	Chemical change

2. Describe the role of oxygen in various chemical reactions that occur naturally.

3. How can we prevent the objects made of iron from rusting?

Keep Dry:	
Paint:	
Oil:	
Galvanization:	
Use Rust-resistant Materials:	

4. Evaluate impact of combustion reaction on environment.

Multiple choice questions:

1. Select the one that is different from the others.

- | | |
|---------------|-------------------------|
| a. Solubility | b. Conductance |
| c. Oxidation | d. Coiling of substance |

2. A physical change occurs when:

- | | |
|--------------------------|--------------------------------------|
| a. Iron rusts | b. Solution of common salt is heated |
| c. A piece of wood burns | d. Sugar is heated strongly |

3. A gas produced on heating solid potassium chlorate is:

- | | |
|-------------|-------------------|
| a. Hydrogen | b. Carbon dioxide |
| c. Methane | d. Oxygen |

4. Select all that happen during a chemical change:

- A temporary change occurs.
- Composition of the substance is changed.
- Properties of the substances are changed.
- New substances with different properties are formed.

5. Freezing of a liquid is a:

- | | |
|--------------------|----------------------|
| a. Chemical change | b. Chemical property |
| c. Physical change | d. None of the above |

6. What are the products when electric current is passed through water?

- | | |
|------------------------|-----------------------|
| a. Only steam | b. Hydrogen and steam |
| c. Hydrogen and oxygen | d. Oxygen and steam |

7. A piece of iron is kept in open air for 5 days. A film of corrosion is formed over it is.

- | | | | |
|---------------|------------------|------------------|-----------------|
| a. Iron oxide | b. Iron sulphide | c. Iron chloride | d. Iron hydride |
|---------------|------------------|------------------|-----------------|

8. During combustion, a substance reacts with:

- | | | | |
|-------------|----------|-------------------|-----------|
| a. Hydrogen | b. Water | c. Carbon dioxide | d. Oxygen |
|-------------|----------|-------------------|-----------|

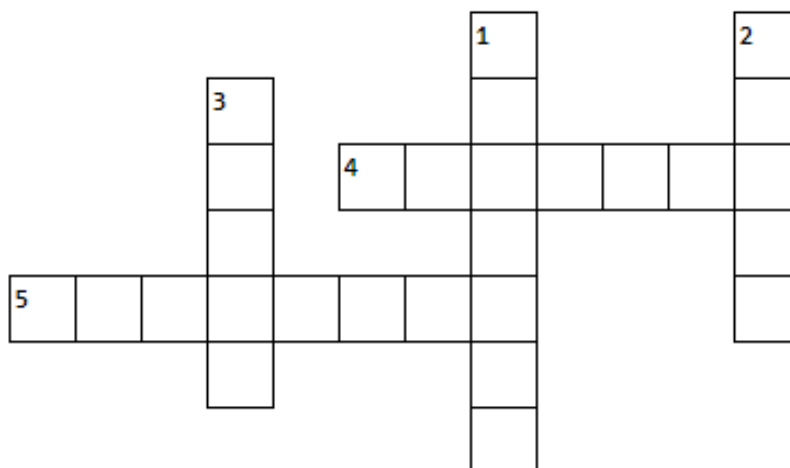
9. The temperature at which a liquid's vapor pressure is equal to the external pressure surrounding the liquid is:

- | | |
|-------------------|------------------------|
| a. Melting point | b. Boiling point |
| c. Freezing point | d. Highest temperature |

10. Silver + Hydrogen Sulphide + Oxygen \longrightarrow Silver Sulphide + Water. The above reaction is known as:

- | | | | |
|---------------|------------|---------------|----------------|
| a. Combustion | b. Rusting | c. Tarnishing | d. Dehydration |
|---------------|------------|---------------|----------------|

2. Crosswords



Across

- 4. Acetylene is used for.
- 5. It is used in detergents.

Down

- 1. Substances in which solute dissolve.
- 2. Molten rocks.
- 3. Mixture of metals.

3. Words Search

Potassium	Property	Chlorine	Carcinogen	Zinc
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P	O	T	A	S	S	I	U	M	C
Y	W	H	N	R	S	U	B	C	A
C	B	B	O	K	L	M	T	W	R
H	U	R	Z	I	N	C	B	V	C
L	F	X	G	J	H	L	N	W	I
O	K	K	R	W	Y	I	O	P	N
R	L	B	Z	W	U	T	C	Q	O
I	P	S	A	Y	E	W	R	Z	G
N	W	D	F	H	K	V	X	J	E
E	P	R	O	P	E	R	T	Y	N

4. Jumbled Words

- | | | | |
|---------------|-------|--------------|-------|
| i. Revsil | _____ | i. Sseouga | _____ |
| ii. Liteolva | _____ | ii. Ionmisse | _____ |
| iii. Goms | _____ | iii. Rightb | _____ |
| iv. Sitnedy | _____ | iv. Lobsmys | _____ |
| v. satcityile | _____ | v. quaetion | _____ |

5. Columns

Match the column A with column B.

Column A

Column B

- | | | |
|--------------|---|---|
| Reactivity | • | • Substance that is being dissolved |
| Conductivity | • | • Ability to conduct electricity |
| Solute | • | • Tendency to undergo a chemical reaction |
| Flammability | • | • Ability of a substance to be dissolved |
| Solubility | • | • Ability of a substance to burn. |

6. Fill in the blanks using the given words.

Oxidation	tarnish	Products	Chemical	Burns
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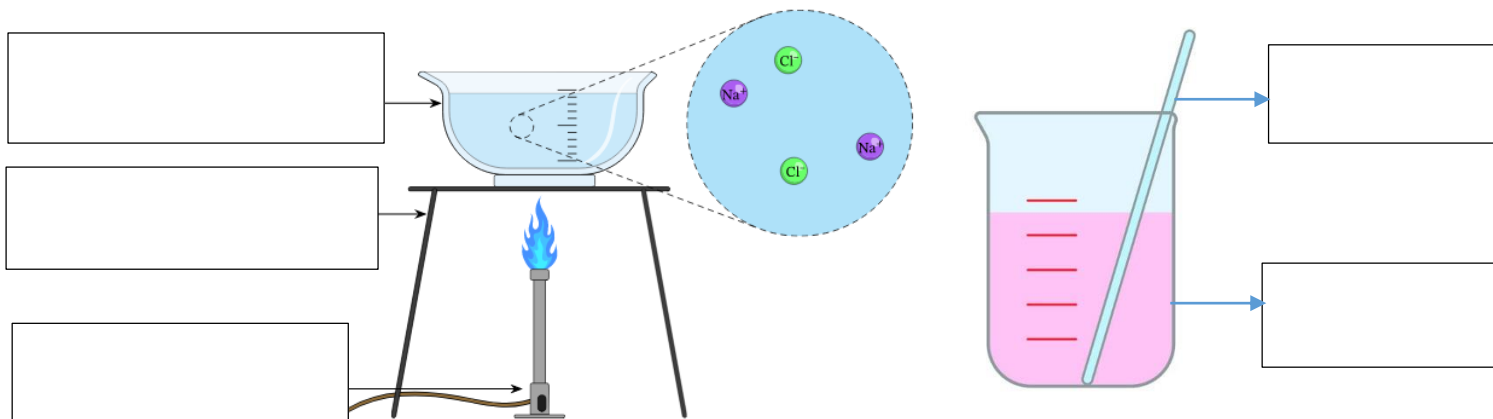
1. Flammability refers to how easily a substance _____
2. Reactivity with acids is an example of a _____
property.
3. The ability to _____ is a chemical property.
4. Chemical reaction of oxygen with other substances is

5. The new substances which are produced during a chemical
reaction are called _____

7. Write “T” for the true and “F” for the false statement.

- | | |
|---|--|
| i. Zinc oxide changes its colour from red to blue on heating | |
| ii. The things that take part in a chemical reaction are called reactants. | |
| iii. Acidity in stomach is due to sulphuric acid. | |
| iv. When sugar is heated, it is changed into a black mass carbon and water. | |
| v. Hardness is the ability of a material to with stand scratches and wear. | |

8. Label the diagram.



9. Drag and Drop

Look at the pictures and write their names in the relevant column.

Melting of ice	Dissolving sugar	Baking a cake	Rusting of iron	Tearing a paper

Changes

Physical/ Chemical

Melting of ice

Dissolving sugar

Baking a cake

Rusting of iron

Tearing a paper

10. Comprehension

Answer the following questions after reading the paragraph.

Physical changes and chemical changes are two fundamental types of changes that matter can undergo. A physical change affects one or more physical properties of a substance without altering its chemical composition. For example, melting ice into water is a physical change because the substance remains H₂O, just in a different state. Other examples include breaking a glass or dissolving sugar in water. Physical changes are usually reversible.

On the other hand, a chemical change results in the formation of one or more new substances with different properties. This occurs when chemical bonds between atoms are broken and new ones are formed. For example, burning wood is a chemical change because it transforms the wood into ash, carbon dioxide, and water vapor, which are entirely different substances. Chemical changes are often irreversible, such as when an egg cooks or rusting of iron.

1. What is a physical change?

2. Give two examples of chemical changes.

3. Can physical changes be reversed?
