المدرسة الوطنية الأرثوذكسية الشميساني
The National Orthodox School Shmaisani

The Primary Stage of Grades (4-5)
School Year 2022 - 2023

Name: ___Key _____ **Unit (6): Physical and Chemical Changes**

Worksheet (1)- Chemical Changes/ Lab report

Date: / / **Grade 5 CP (All sections)**

Objective:

- **Look for evidences of chemical changes.**

- Required Materials:

Different materials for testing: - Acid (HCL) - A candle - Vinegar - Bicarbonate of soda - A piece of paper - Magnesium ribbon	
- Bunsen burner	- A beaker
- Test tubes	- Test tube holder

Procedure:

1. Cut a piece of magnesium ribbon, and put it in a test tube. Add 30 ml of HCL acid. Write your observations in table 1.

2. Put 2 spatulas (spoons) of bicarbonate of soda, and then add 50 ml of vinegar in a beaker. Write your observation in table 1.

3. Burn a piece of paper using Bunsen burner. Write your observation in table 1.

4. Burn a piece of magnesium. Write your observation in table 1.

- **Observation:**

Test	Reactants	Observations
Metal (Magnesium) + Acid (HCL)	Magnesium + HCL	- The metal disappears. - Bubbles are formed. - Heat is produced.
Bicarbonate of soda + vinegar	Bicarbonate of soda and vinegar	- Fizzing and bubbling, a gas is produced.
Burning a piece of paper	Paper + Oxygen	- The solid turns into ash. Light and heat are produced.
Burning a piece of magnesium	Magnesium + Oxygen	- Bright white light is produced. - The silver metal turns into white ash.

Table 1

Conclusion:

In a chemical change, substances react together to produce a new material.

Evidences of a chemical change include:

1. Gas production

2. Temperature Change

3. Change in color

Question 1:

Classify the following changes into chemical or physical changes, and state the evidences of the chemical change.

Change	Chemical Change/ Physical Change	Evidence of the chemical Change
Mixing bicarbonate of soda and vinegar.	Chemical	Gas Production
Mixing sand and water.	Physical	----------
Mixing cement and water.	Chemical	Heat Production
Dissolving sugar in water.	Physical	----------
Melting Ice	Physical	----------
Dissolving salt in water	Physical	----------

Question 2:

Your teacher lit a candle and told you that this was a chemical reaction.

a) What are the reactants in this chemical reaction?

Candle wax + Oxygen

b) What are the products in this chemical reaction?

Carbon Dioxide + Water Vapor

c) Why did the flame go out when your teacher put a jar over the candle?

Burning is a chemical reaction that needs oxygen to take place.

Equation of the reaction: