

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

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

**Unit (5): Properties of matter  
Worksheet (1)- Lab report**

Date: / /

**Grade 5 CP (All sections)**

**Objective:**

- Discover properties of materials in the laboratory including: mass, electrical conductivity, thermal conductivity, solubility and magnetism.
- Observe different lab tools and know their uses.

**Part 1: Mass**

What is mass?

.....

Does air have mass?

Prediction: .....

In order to test your prediction, work in groups.

1. Use a balance to measure the mass of an empty balloon.
2. Blow the balloon and measure its mass again. Do you observe any difference in the balance reading?
3. Record your findings.

Mass of the empty balloon .....

Mass of the filled balloon .....

Mass of the air inside the balloon .....

4. Conclusion: .....

.....

## **Part 2: Electrical Conductivity**

### **- Required Materials:**

<b>Different Objects:</b>			
Plastic comb		chalk	brass button
Glass marble		iron nail	wax crayon
golden ring	Salt water	aluminum baking tray	Graphite
A bulb		Cells	
Wires		Switch	
A bulb holder			

### **Procedure:**

- 1. Construct a simple electric circuit.**
- 2. Add each object to the circuit.**
- 3. Observe what happens, record your observation in table 1.**

**Observation:**

<b>Object or substance</b>	<b>If I put this object or substance in an electric circuit will the bulb light up? Yes/No</b>	<b>Is the object a conductor or an insulator?</b>
plastic comb		
glass marble		
salt water		
chalk		
brass button		
iron nail		
wax crayon		
<b>graphite</b>		
aluminium baking tray		
Gold		

**Table 1**

**Conclusion:**

**Materials are classified into electrical conductors or electrical insulators.**

**- Electrical conductors:**

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.....

.....

.....

**- Electrical insulators:**

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### Part 3: Solubility

#### **- Required Materials:**

Substances:			
- Sand	- Sugar	- Rice	- Copper Sulfate
- Jelly powder	- Salt	- flour	- Iron filings
- Clay	- Sawdust	- Chalk	
- Beakers		- Stirring rod	
- Spatula		- Water	

#### **Procedure:**

1. Pour 100 ml of water into each beaker.
2. Add one spatula of solid into each beaker and stir.
3. Observe what happens, record your observation in table 1.

#### **Observation:**

**A soluble substance dissolves completely to make a clear solution.**

**An insoluble substance does not dissolve.**

1. a. Which substances are soluble in water?

.....

- b. How did you notice this?

.....

- c. In the mixture of salt and water, what is the name given to:

- Salt: .....

- Water: .....

- Mixture: .....

2. Which substances are insoluble in water?

.....

### Part 4: Is it Magnetic?

In groups, discover which materials from the following are magnetic and which are non-magnetic by approaching a magnet into each material.

Aluminum      Steel      iron      plastic      rubber  
Glass      cobalt      nickel      wax      silver

Magnetic Materials	Non- magnetic Materials

