

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

Name: _____

**Unit (6): Physical and
Chemical Changes
Worksheet (4): Dissolving- Lab Report
Grade 5 CP (All sections)**

Date: / /

Objective:

- Investigate the factors that affect the rate of dissolving in the lab.

Part 1:

Investigating the effect of **the grain size of the solute** on the rate of dissolving:

Materials required:

Digital balance, three equal sized beakers, water, stirring rod, timer.

Different kinds of sugar: Powdered sugar, granulated sugar, sugar cubes.

Procedure:

1. Measure the mass of a sugar cube.
2. Add the sugar cube to the first beaker and stir it until all the sugar dissolves, record the time taken to dissolve in table 1.
3. Repeat with the same mass of each type of sugar.
4. Record the results in table 1.

Results:

Table 1:

Kind of sugar	Time to dissolve in sec
Sugar cube	
Granulated sugar	
Powdered sugar	

1. Identify the **independent variable** in this investigation.

.....

2. Identify the **dependent variable** in this investigation.

.....

3. Name three **controlled variables** in this investigation.

a.

b.

c.

4. Write a proper **conclusion** for this investigation.

.....

.....

.....

Part 2:

Investigating the effect of **the temperature of the solvent** on the rate of dissolving:

Materials required:

Digital balance, two equal sized beakers, water at different temperatures, stirring rod, timer, granulated sugar.

Procedure:

1. Measure the temperature of water in both beakers, record the readings in table 2.
2. Measure 4 grams of sugar.
3. Add the same mass of sugar to each beaker and stir it until all the sugar dissolves, record the time taken to dissolve in table 2.

Results:

Table 2:

Beaker	Temperature of water in °C	Time to dissolve in sec
Beaker A		
Beaker B		

1. Identify the **independent variable** in this investigation.

.....

2. Identify the **dependent variable** in this investigation.

.....

3. Name three **controlled variables** in this investigation.

a.

b.

c.

4. Write a proper **conclusion** for this investigation.

.....

.....

The **factors** that affect the rate of dissolving are:

1

2

3