

Worksheet 1 |

Lower Secondary
Stage (6-8)

1st Semester | 2023-2024

Subject: Science

Name: KEY

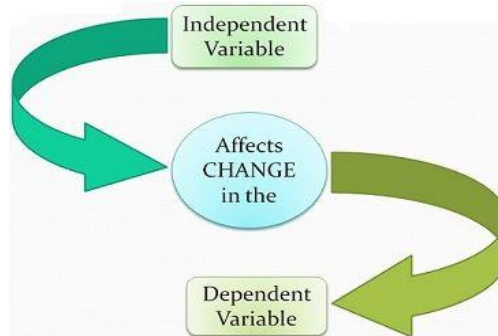
Objectives:

Garde 7 A

- Identify the dependent and the independent variables.
- To draw and analyze different types of graphs.

Remember that:

A dependent variable is a variable whose value depends on another variable, whereas An Independent variable is a variable whose value never depends on another variable.



Question one:

Identify the dependent and the independent variables in the following situations:

1- A student investigated whether the height of a person affects how fast he can run.

Dependent variable: **How fast a person can run**

Independent variable: **The height**

2- A student investigated which color of flower attracts the most bees.

Dependent variable: Number of bees.

Independent variable: The color of flower.

3- Students are studying the effect of adding salt to an iron nail on the speed of rusting.

Dependent variable: The speed of rusting.

Independent variable: Adding salt to the nail.

Question 2 :

Grade 7 students investigated how far a toy can move on different surfaces.

They recorded their results in the table below:

Surface	Distance car moved (cm)		Average distance the car moved
	Test 1	Test 2	
Carpet	10	9	$\frac{10+9}{2} = 9.5$
Smooth surface	18	18	$\frac{18+18}{2} = 18$
Grass	8	7	7.5

a) Calculate the average distance:

b) Why did the students repeat the investigation?

To have an accurate result.

c) Name the dependent variable in the investigation:

_____ **The distance the car moved** _____.

d) Name the independent variable in the investigation:

_____ **The surface** _____.

e) Name two controlled variables in the investigation:

_1- Same toy car 2- same starting point 3- same measuring tape _____.

f) Draw a bar chart to represent the results:

