

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

Name: **Key** \_\_\_\_\_



**Subject: Science**  
**Unit 7: Effects of Forces**  
**Mass and Weight Revision Sheet**  
**Class: Grade 5 CP (All sections)**

Date: / /

**Objective/s:**

- Differentiate between the mass of an object and its weight.
- Calculate the weight of an object on Earth.

**Q1: Compare between mass and weight in the following table:**

	Mass	Weight
<b>Definition:</b>	The amount of matter in an object. .....	The amount of gravitational force acting on an object. .....
<b>Unit:</b>	Kg/ gram	Newton (N)
<b>Instrument:</b>	A Balance / A Scale 	A Force meter 
<b>Does it change when you go to another planet?</b>	No	Yes, according to the gravitational strength of the planet.

Q2:

a) A group of friends were measuring their mass and weight on Earth. Complete the table below to see their results.

Names	Mass	Weight on Earth
Costa	65 kg	$65 \times 10 = 650 \text{ N}$
Hashem	$900 \div 10 = 90 \text{ Kg}$	900 N
Rayn	91 Kg	$91 \times 10 = 910 \text{ N}$
Joseph	$550 \div 10 = 55 \text{ Kg}$	550 N

b) An astronaut stands on a weighing scale on Earth, it gave a reading of 80 Kg.

The astronaut travels to **planet (A)** which has a gravitational force that equals **half (1/2)** of the gravitational force of Earth.

Calculate the following:

The astronaut's <b>mass</b> on Earth:	... <b>80 Kg</b> .....
The astronaut's <b>weight</b> on Earth:	<b><math>80 \times 10 = 800 \text{ N}</math></b> .....
The astronaut's <b>mass</b> on planet A:	... <b>80 Kg</b> .....
The astronaut's <b>weight</b> on planet A:	$\frac{1}{2} \times 800 = 400 \text{ N}$ .....
The astronaut's <b>mass</b> on Jupiter:	..... <b>80 Kg</b> .....