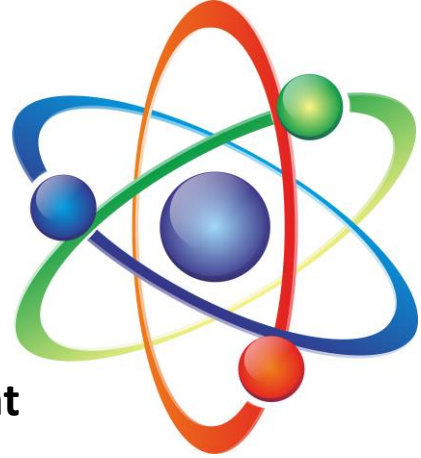


Lab research: mass and weight

Objectives

Sometimes it´s hard to distinguish between mass and weight. With this lab activity we will learn about these two magnitudes, how to measure them, their units of measurement, their meaning, relationship…

Materials

The basic materials required here will be:

- ✓ hook weights
- ✓ support stand with rings
- ✓ dynamometer
- ✓ electronic balance
- ✓ calculator

Procedure

Reorganize the steps of the procedure and put the following linkers in their right place.

Finally,	Then,	First,	Next,	Afterwards,	Later

…… we relate mass and weight in a graph to search for correlations.

…… we write down the weight on the table.

…… we write down the masses on the table and we convert them to kg.

…… we measure different weights with the dynamometer.

…… we measure different masses with the electronic balance.

…… we apply the formula to weight = mass x gravity to check similarities.

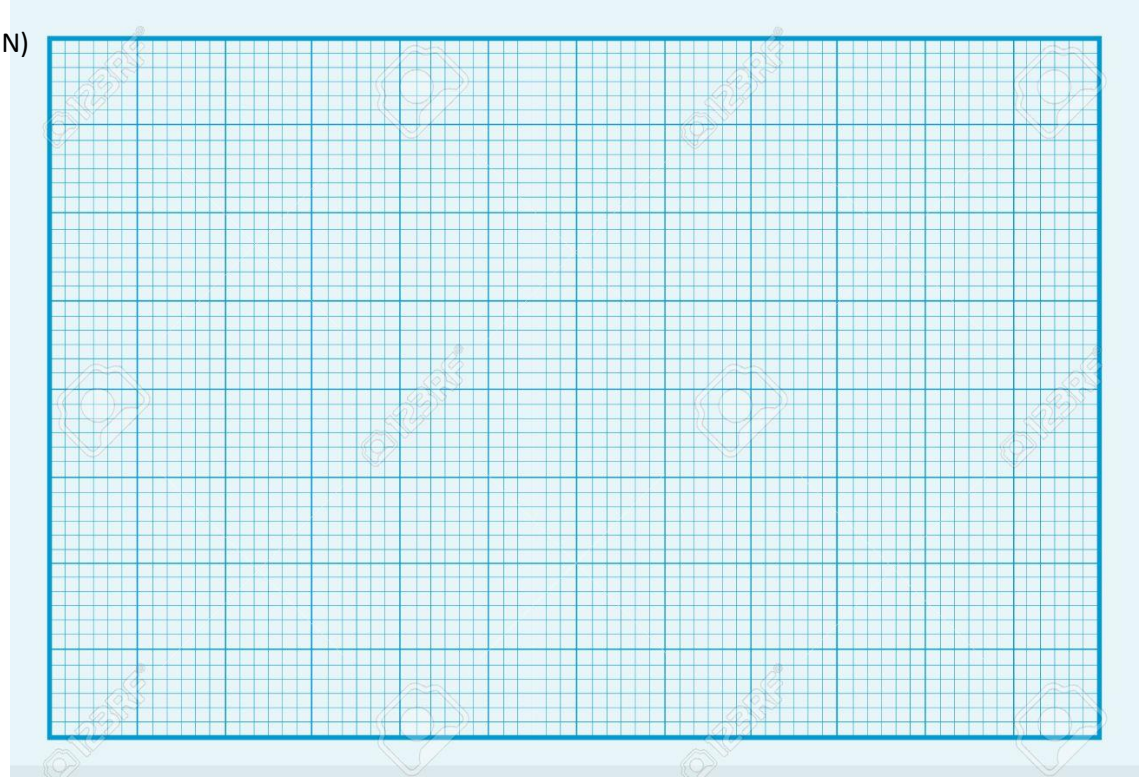
Data gathering and Analysis

Complete the table below with the data you obtain. Calculate the weight (mass times gravity).

	mass (g)	mass (kg)	weight (N)	weight (m×g)
Sample 1				
Sample 2				
Sample 3				
Sample 4				
Sample 5				

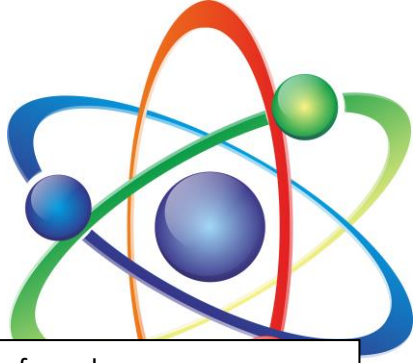
Now complete this graph relating the masses (in kilograms) to their weight (in newtons).

Weight (N)



Mass (kg)

What does the graph whow?



Conclusions

Complete the sentences with the following parts.

an electronic balance	a dynamometer	formula
a force that depends on the local gravity		amount of matter

a. In this laboratory practice, we have learnt that mass is the_____ that a body has and weight is_____

b. Also, we have learnt that mass is measured with _____, we can measure weight with _____and we can represent the data on a graph.

c. Moreover, we have found out that the weight measured with the dynamometer does not completely match with the _____.

d. Finally, we found interesting that…