



SUBJECT - *MATHEMATICS*
CLASS – III
TOPIC – WEIGHT



PDF CHAPTER LINK

Unit - 9

WEIGHT

Do you remember?
1 kilogram = 1000 grams.
The standard unit of weight is Kilogram.

Let us have fun with measurement of weight.

1. You are given some objects here. Encircle all the objects which are sold by measuring weight.

2. Guess the weights of the given objects and match.

400 kg
6 g
100 g
3 kg

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LEARNING OBJECTIVES

- Identification of objects which are sold by measuring weight.
- Comparison between heavy and light objects.
- Recognition of the basic unit of measuring weight.
- Conversion of the units of weight – from kilogram to gram.
- Addition and Subtraction of the weights with grouping.
- Use of the basic concepts of weight in day to day life.
- Application of the concept of weight in solving word problems.



EXAMPLE OF WIEGHT IN REAL LIFE



COMPARISON

HEAVY

AND

LIGHT



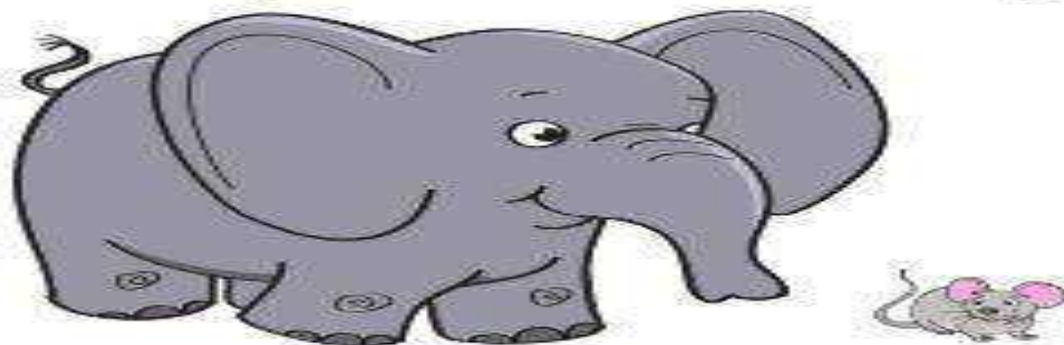
Author / Illustrator:

What is Heavy? What is Light?



Teacher Resources

An elephant is heavy.



A mouse is light.

Teacher Resources



Light

Heavy

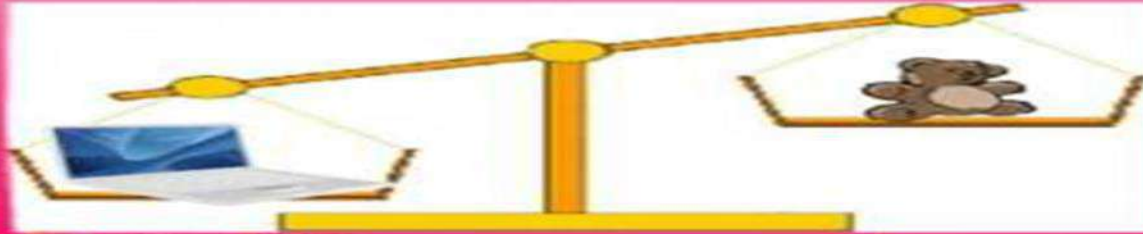


light

heavy

HOW TO KNOW WHICH IS HEAVIER?

The one at the top is light while the one at the bottom is heavy.



Which is bigger?



Which is heavier?

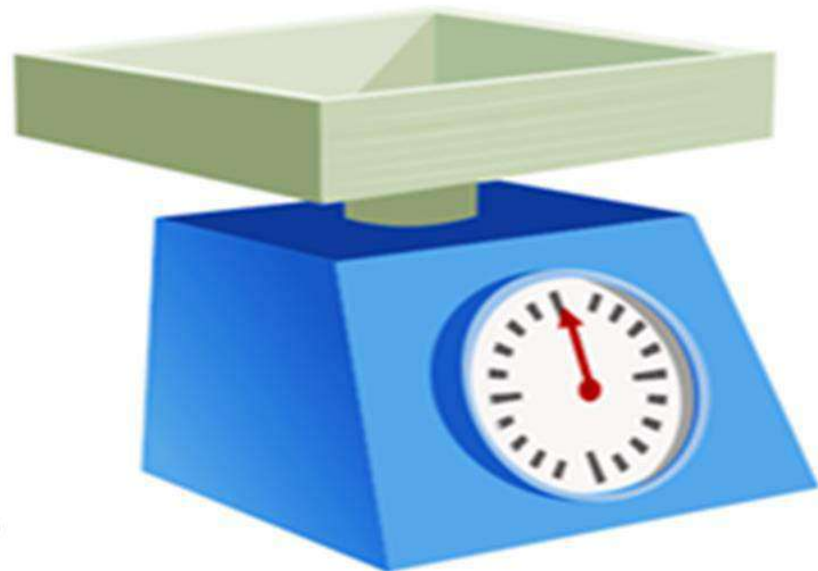


How can that be?

Because weight and size are different. There is more matter (stuff) in the marble and baseball.

What is weight?

Weight is a
measure of
how heavy
something is.





BASICS OF WEIGHT



How do we buy vegetables?



We buy things according to our need



Big bag of rice



Pulses

We buy things in different quantity



We should have idea of weight of things



We should to know how much we need





We measure the WEIGHT of.....



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**And to measure the quantity
of these things we need to
measure their WEIGHT**





TO MEASURE WEIGHT, WE USE

- **NON-STANDARD UNITS**(using things like cup, spoon, stones, beads, cubes, marbles, etc)
- **STANDARD UNITS**(Kilogram and Gram)

Non-standard units



Weight of the banana is
3 stones.

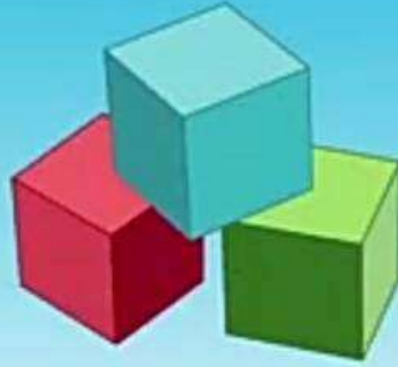


Weight of the banana is
4 marbles.



Weight of the banana is
2 blocks.

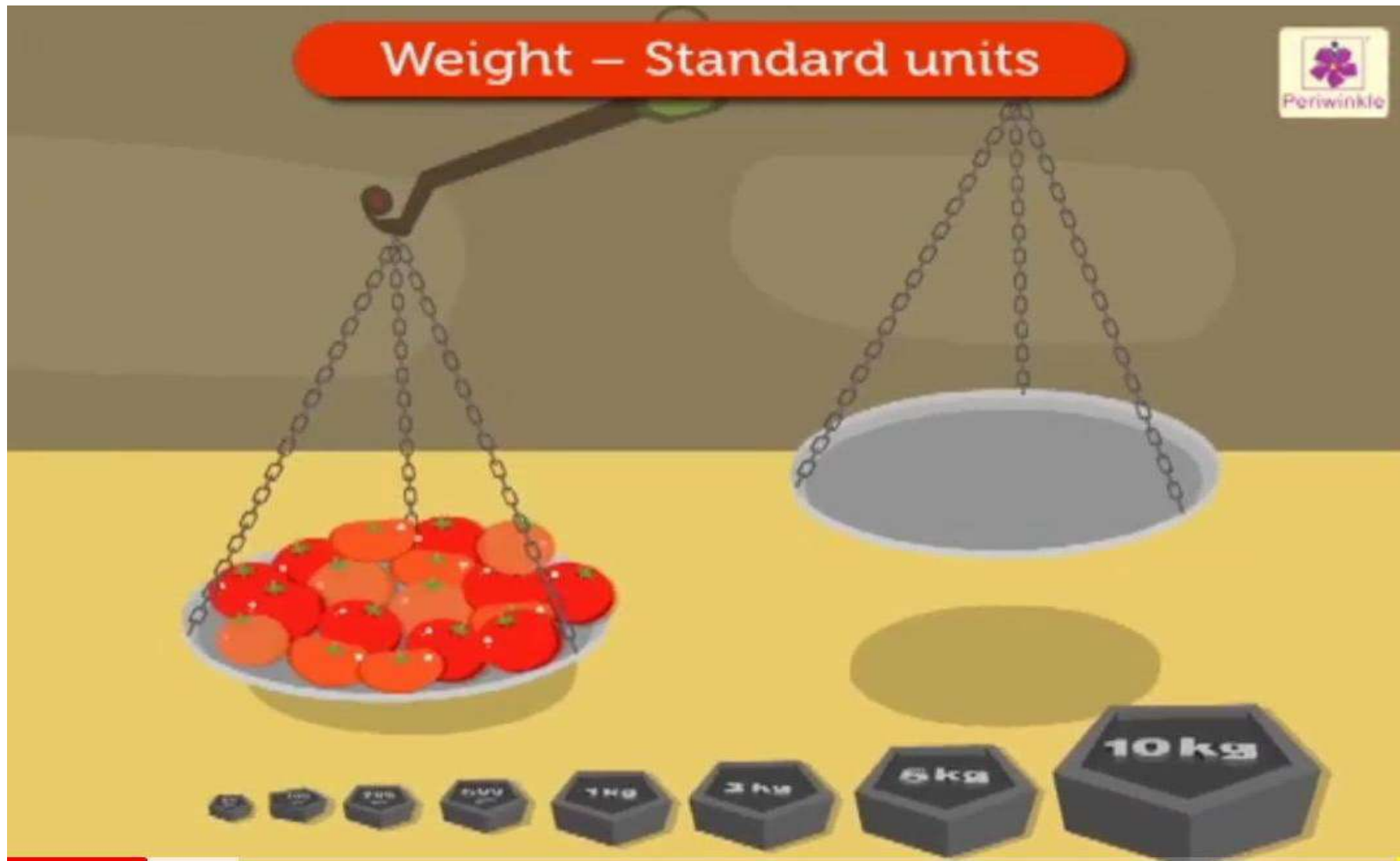
A non-standard unit may vary from person to person
or with the object with which it is weighed.



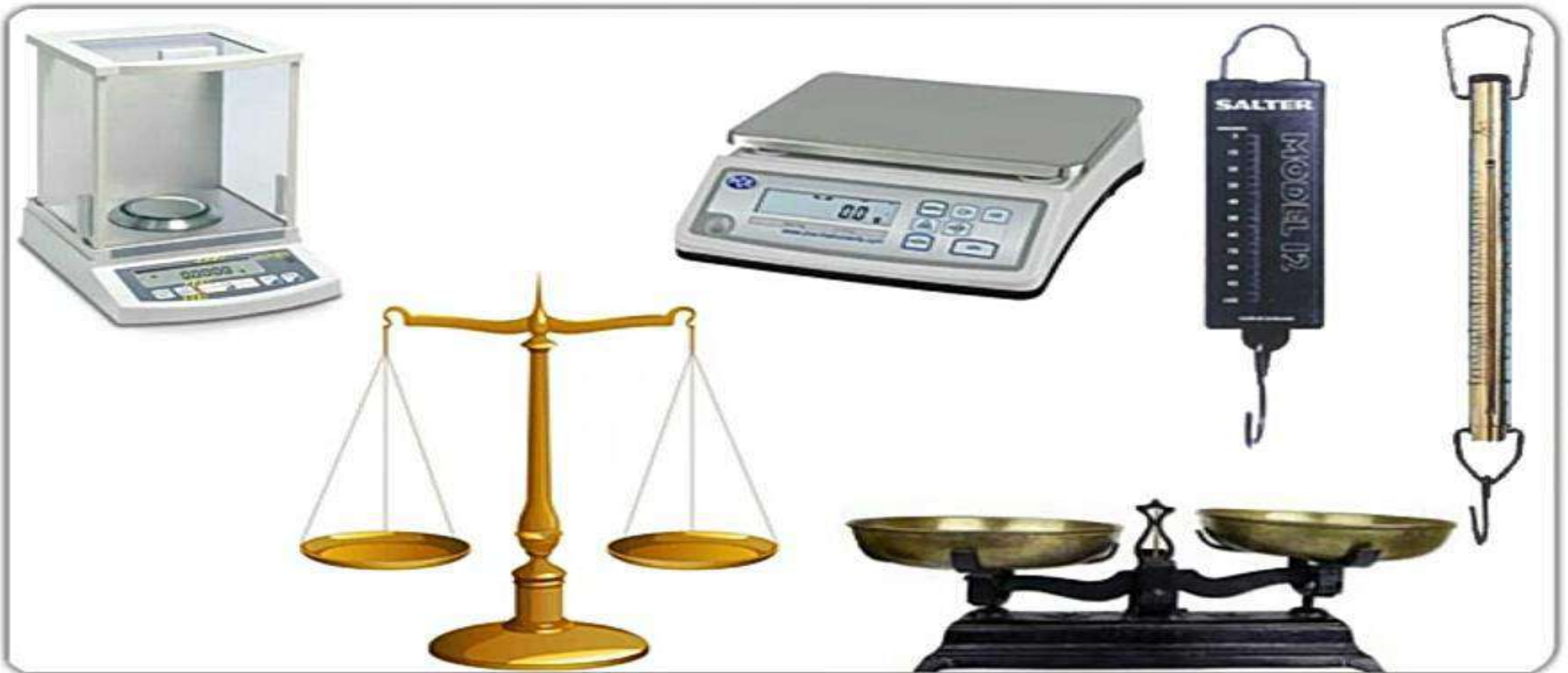
Non-standard units do not give the exact weight.



So we use the **STANDARD UNITS** of weight...



To weigh things we use different types of balances.





UNITS OF MEASUREMENT



The most common units of measurement for *weight* are **grams** and **kilograms**.

A gram is very light.
These items weigh
approximately 1 gram.



1 pen lid



1 paperclip



1 piece of chewing gum

A kilogram is 1000 grams.
These items weigh
approximately 1 kilogram.



1 litre of milk



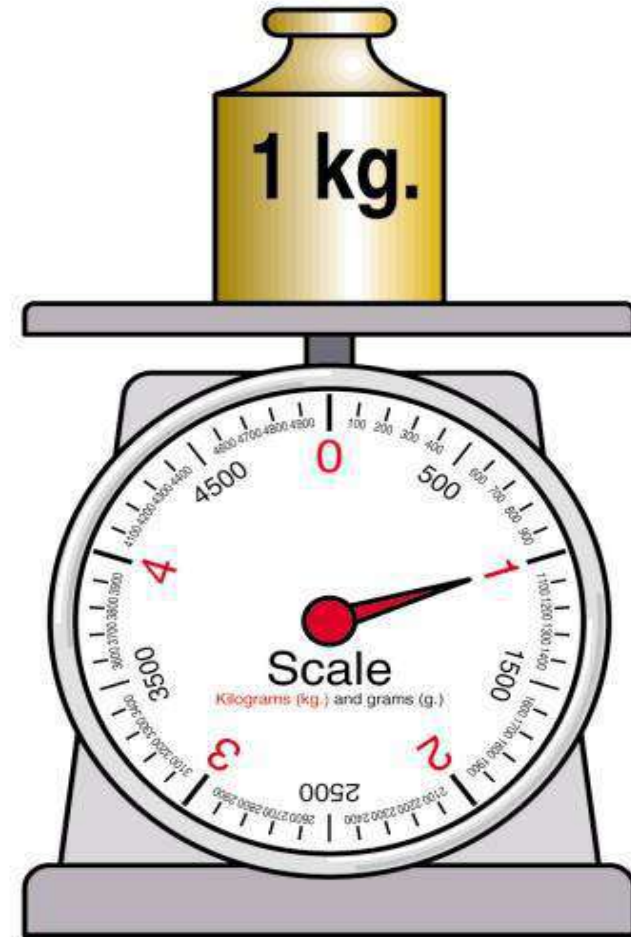
2 loaves of bread



7 apples



How Many Grams In A Kilograms



1 kilogram = 1000 grams



CONVERSION OF KILOGRAMS 'kg' INTO GRAMS 'g'

STEPS TO CONVERT:-

STEP 1

Multiply the given number with 1000

STEP 2

Add three zero after the given number in the result part

STEP 3

Replace kg by g

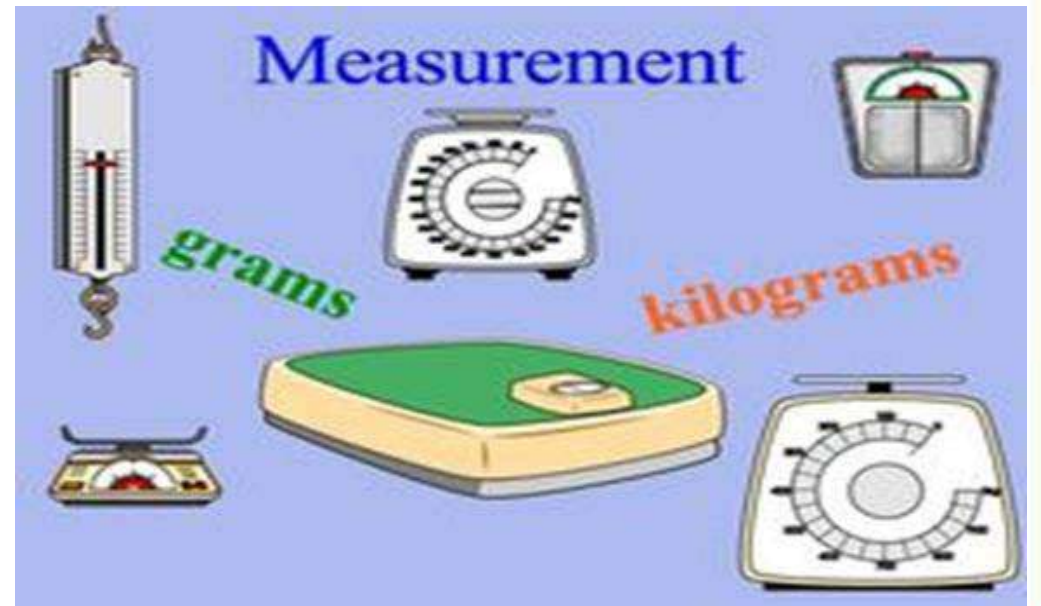


AUDIO - VISUAL EXPLANATION OF THE CONVERSION USING SOME EXAMPLES

Conversion of Units of Mass or Weight

Conversion into grams

$$\begin{aligned} 2 \text{ kg } 15 \text{ g} &= (2 \times 1000)\text{g} + 15 \text{ g} \\ &= 2000 \text{ g} + 15 \text{ g} \\ &= 2015 \text{ g} \end{aligned}$$





KEY

POINTS



- 1 Kilogram = 1000 gram.
- The standard unit of weight is kilogram.
- Kilogram can be written as kg.
- Gram can be written as g.
- We multiply the number of kilograms by 1000 to convert kilograms into grams.



Work is Worship



ADDITION AND SUBTRACTION OF WEIGHTS

- Separate the kg and g in two columns and then do the addition or subtraction as given in the question.
- Addition and subtraction in grams and kilograms is done in the similar way as in the case of ordinary numbers.
- In the result part mention kg in the kilogram part and g in the gram part.



Addition of Kilograms and Grams

Let us add 8 kg 378 g and 1 kg 426 g.

kg	g
	11
8	378
+ 1	426
9 804	

$\therefore \text{Sum} = 8 \text{ kg } 378 \text{ g} + 1 \text{ kg } 426 \text{ g} = 9 \text{ kg } 804 \text{ g}$

Addition of Kilograms and Grams

Add 5 kg 832 g and 3 kg 498 g.

kg	g
	1
5	832
+ 3	498
9 1330	

$\therefore \text{Sum} = 5 \text{ kg } 832 \text{ g} + 3 \text{ kg } 498 \text{ g} = 9 \text{ kg } 330 \text{ g}$



Subtraction of Kilograms and Grams

Let us subtract 3 kilograms 93 grams from 9 kilograms 872 grams.

kg	g
9	872
-	3093
6 779	

So, the difference is 6 kg 779 g

Subtraction of Kilograms and Grams

Subtract 1 kg 802 g from 4 kg 325 g.

kg	g
3	13
4	3 25
-	1802
2 523	

So, on subtracting 1 kg 802 grams from 4 kg 325 grams we get 2 kg 523 grams.



WORD PROBLEMS

Q- Jason purchased 7 kg 200 g of sugar, 9 kg 395 g of rice. What is the total weight which Jason carried?

ANS- Weight of sugar Jason purchased = 7 kg 200 g
Weight of rice he purchased = 9 kg 395 g
Total weight he carried = 7 kg 200 g + 9 kg 395 g

	kg	g
	9	200
+	7	395
	16kg	595g

Thus, Jason carried 16kg 595g in all.



Q- Father bought 18 kg 750 g of fruits (mangoes and apples). He had 6 kg 320 g of mangoes. What is the weight of apples?

ANS- Total weight of fruits father bought = 10 kg 750 g
Weight of mangoes = 6 kg 320 g
Weight of apples = 10kg 750g – 6kg 860g

	kg	g
	18	750
—	6	320
	12 kg	430 g

Thus, father bought 4kg 430g apples.



ACTIVITY

(through Art-Integration)



So here we will learn how to make a home made Physical Balance.

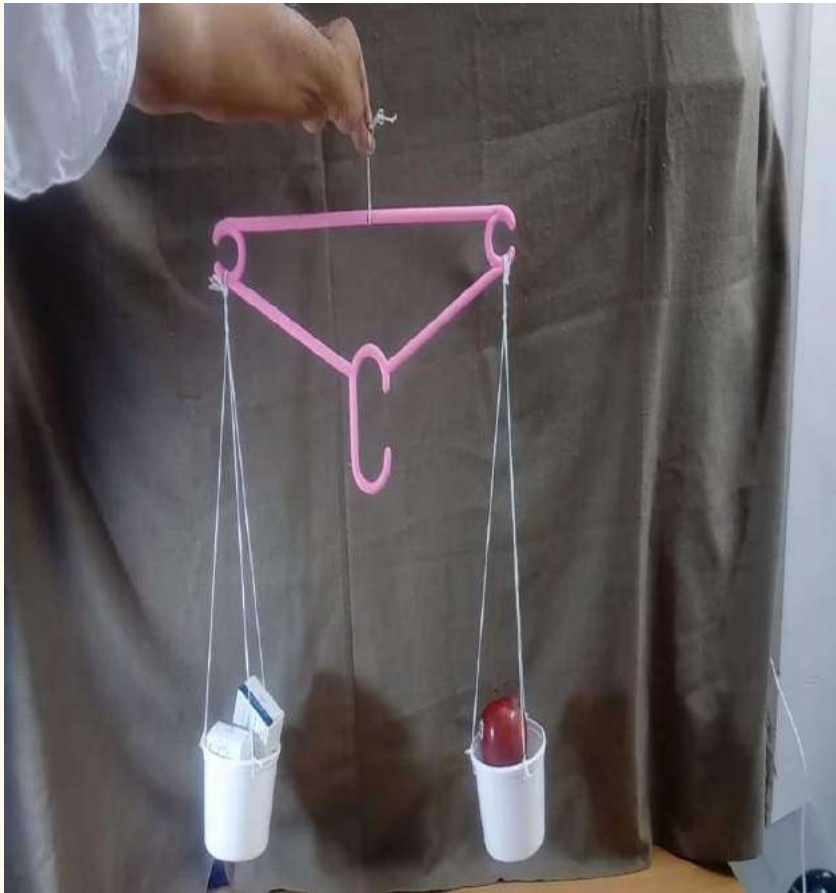
STEP 1 : Take a hanger.

STEP 2 : On the two ends attach two binder clips.

STEP 3 : On each clip attach thread.

STEP 4 : Attach two thermocol bowls at the end of the threads on both the sides.

STEP 5 : Then we can measure the weight of the objects.





VALUE BASED QUESTIONS

Rohan and his father went to a market to buy some books and copies. Rohan saw an old lady carrying two bags of weight 6kg 300g. It was difficult for the lady to carry the bags all alone. Rohan seeing this carried one bag for her which weighed 3kg 110g. They reached the old lady's house and Rohan kept the bag in her house. She was very happy and blessed Rohan.

Q1 – Find the weight of the other bag.

Q2 – What values does Rohan exhibit here?





SAMPLE QUESTION PAPER

DAV PUBLIC SCHOOL RAJABAGICHA

SUB- MATH
CLASS- III

F.M- 10
TIME- 30 mints

A. Fill in the blanks:-

[1x1=1]

1. 2 kilogram = _____ grams.

B. Do as directed:-

[2x1=2]

1. Arrange in column and add the following :
23 kg 007 g and 9 kg 150 g

C. Answer the following questions:-

[3x1=3]

1. Mr. Rahul bought 8kg 350g apples. He found that 1 kg 240 g of apples were unripe. Find the weight of ripe apples.

D. Answer the following:-

[4x1=4]

Anuj went to market to buy vegetables. There he saw an old man carrying two bags of vegetables weighing 6kg 500g. Anuj wanted to help the old man so he took one bag from him. It weighed 2kg 750g. Anuj accompanied the old man to his house.

1. Find the weight of the other bag the old man was carrying.
2. How you offer help to old people?



MARKING SCHEME

QUESTION NUMBER	ANSWER	MARKS ALLOTTED
A. 1)	2000g	1mark
B. 1)	32 kg 157 g	arranging in columns – 1 mark answer – 1 mark
C. 1)	7 kg 110 g	statement – 1 mark operation – 0.5 mark answer – 1.5 marks (arranging in column- 0.5 marks and answer – 1mark)
D. 1)	3kg 750g	statement – 1 mark operation – 0.5mark answer – 1.5 marks
2)	any valid answer	1 mark



SUMMARY

- Weight is a measure of mass. It shows the heaviness of an object.
- We measure the weight of an object or our own weight in grams or kilograms.
- Kilograms and grams are the basic units of measurement of weight.
- The standard unit of weight is 'kilogram'.
- Heavy items are weighed in kilograms
- Light items are weighed in grams.
- Gram is denoted as 'g'.
- Kilogram is denoted as 'kg'.
- Different objects having the same weight can be of different sizes and shapes.
- $1 \text{ kg} = 1000\text{g}$
- Half ($\frac{1}{2}$) kg = 500g
- A Physical Balance or Digital Balance is used to measure the weight of objects.



THANKS A TON.

