

CLASS:IV
SUBJECT:MATHEMATICS
TOPIC: WEIGHT

INTRODUCTION

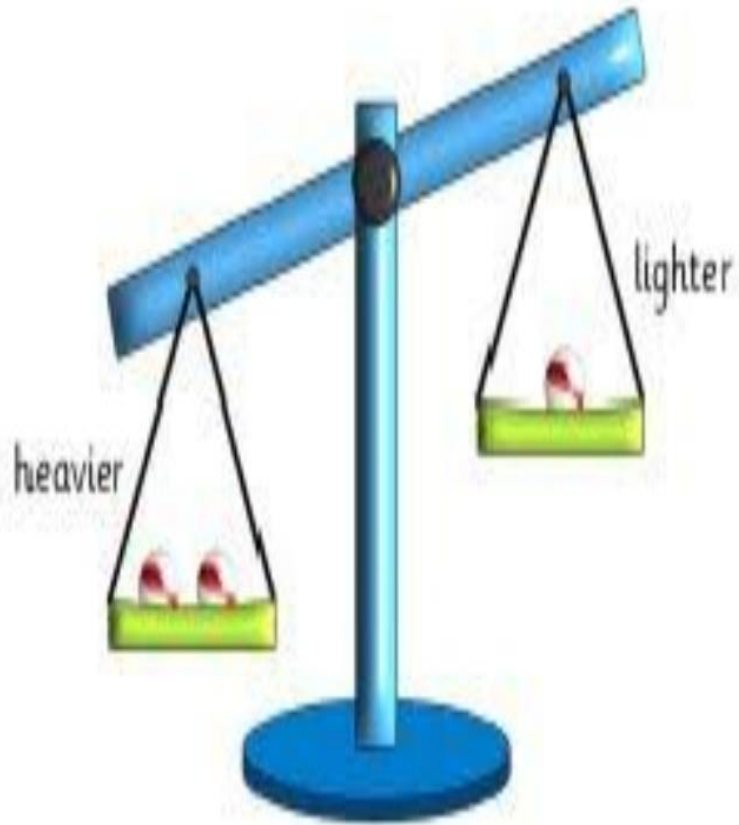
What is weight?

Weight is a measure of how heavy something is.



Weight

COMPARISON



Comparing Weights

In order to **compare weights** you will need to **convert** them into the **same unit of measurement**. For example...



The bag of apples weigh **1 kg 20 g**.
The bunch of bananas weigh **950 g**.
Which are the **heaviest**?



$$1 \text{ kg } 20 \text{ g} = 1020 \text{ g}$$

By **converting** the unit of measurement to **grams** you can easily compare the weights. The **apples** are the heaviest.

ASSESSMENT



Circle the heavier object.



Circle the heavier object.



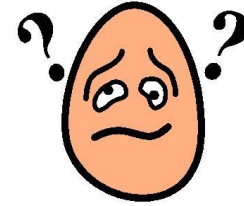
Circle the lighter object.



Circle the lighter object.



UNITS



Remember the following points:

- ❑ The standard unit of weight is kilogram.
- ❑ The smaller unit of weight are gram, milligram etc.
- ❑ The short form for:
 - * Gram is 'g'
 - * Kilogram is 'kg'
 - * Milligram is 'mg'

$$1 \text{ kg} = 1000 \text{ g}$$



Click the following link

<https://www.youtube.com/watch?v=yмуZg3MQClg>

CONVERSION:
BIGGER INTO SMALLER
UNIT

☐ KILOGRAMS INTO GRAMS:

**☐ KILOGRAMS AND GRAMS
INTO GRAMS:**

CONVERTING KILOGRAMS INTO GRAMS

• 1 kg = 1000g

We multiply the number of kilograms by 1000 to convert 'kilograms' into 'grams'.

Example: $15 \text{ kg} = 15 \times 1000 \text{ g}$
 $= 15,000 \text{ g}$

ASSESSMENT

Fill in the blanks:

1. 5 kilograms = _____ grams
2. 15 kilograms = _____ grams

Convert the following into grams with process.

1. 5 kg 250 g
2. 16 kg 859 g

State 'True' or 'False'

1. 5 kg 56g = 5056 g
2. 123 kg 5g = 1235 g



Click the following link

<https://www.youtube.com/watch?v=yмуZg3MQClg>

CONVERSION: SMALLER INTO BIGGER UNIT

**☐ Grams into
kilograms :**

**☐ grams into
kilograms and
grams :**

CONVERTING GRAMS INTO KILOGRAMS

- We divide the number of grams by 1000 to convert 'grams' into 'kilograms'.

a) Example: $8000 \text{ g} = 8000 \div 1000$
 $= 8 \text{ kg}$

b) Example: Convert 8495 g into kilograms and grams.

Ans: $8495 \text{ g} = 8000 \text{ g} + 495 \text{ g}$
 $= 8 \text{ kg and } 495 \text{ g}$

ASSESSMENT

Fill in the blanks.

1. 2500 grams = _____ kg _____ g

2. 1234 grams = _____ kg _____ g

Convert the following into kilograms and grams with process:

1. 5250 g

2. 12859 g

State 'True' or 'False'.

1. 1234g = 12 kg 34g

2. 56789g = 56 kg 789 g

ADDITION

1. 12kg 345g and 56kg 789 g

$$\begin{array}{r} \text{kg} \quad \text{g} \\ 12 \quad 345 \\ + \\ \hline 56 \quad 789 \\ \hline 69 \quad 134 \end{array}$$

Explanation

$$\begin{aligned} 345 \text{ g} + 789 \text{ g} &= 1134 \text{ g} \\ &= 1 \text{ kg } 134 \text{ g} \\ 12 \text{ kg} + 56 \text{ kg} &= 68 \text{ kg} \\ &= 68 \text{ kg} + 1 \text{ kg} = 69 \text{ kg} \end{aligned}$$

WORD PROBLEM :

Rohan purchased 60 kg 250 g sugar from one shop and 45kg 356 g from another shop. How much sugar did he purchase?

Solution:

$$\begin{array}{r} \text{Quantity of sugar from:} \quad \text{kg} \quad \text{g} \\ \text{one shop} = \quad 60 \quad 250 \\ + \\ \text{another shop} = 45 \quad 365 \\ \hline 105 \text{ kg} \quad 615 \text{ g} \end{array}$$

ASSESSMENT

□ Add the following values:

1. 72kg 245g and 86kg 189 g
2. 19kg 305g and 50kg 780 g

□ Solve the following word problem by giving proper statement.

1. Ram purchased 25 kg 600 g of oranges , 10 kg 250 g of apples and 8 kg 280 g of grapes from the market. What is the total quantity of fruits he purchased from the market?

SUBTRACTION

□ Subtract the following values:

1. 12kg 345g from 256kg 789 g

kg g
256 789

-

12 345
244 kg 444g

□ WORD PROBLEM :

Aman purchased 60 kg 880 g sugar from one shop and gave 45kg 356 g to his brother Ashok. How much sugar is left with him?

Solution:

Quantity of sugar : kg g
purchased = 60 880

-

given = 45 365
left with him = 15 kg 515g

ASSESSMENT

□ Subtract the following values:

1. 12kg 145g from 86kg 149 g
2. 59kg 315g from 80kg 720 g

□ Solve the following word problem by giving proper statement.

1. *Sonu had 25 kg 600 g of oranges , He gave 10 kg 250 g of it to his sister Sonia. How much weight of oranges is left with him?*



$\sqrt{-1}$



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HIGH ORDER THINKING QUESTIONS

ART OF QUESTIONING



What teachers should know about questioning in Math class?

HIGH ORDER THINKING QUESTIONS **(HOTS)**

Fill in the blanks:

1. 1 kg 5g = _____ g
2. Number of 100 g blocks in a 1kg block is _____.
3. The weight needed to make 2kg 800 g to 3 kg is _____g.
4. The weight of a strawberry is _____ than the weight of a mango.
5. 10 kg 150 g is _____ than 150g.
6. _____g more are needed to make 1kg 800g equal to 2kg.
7. We have to divide the number of grams by _____ to convert 'grams' into 'kilograms'
8. 12345g = _____ kg and _____g.
9. 5000g is _____ kg less than 6000g.
10. 2kg 250g = 3000g - _____g

CLASS ROOM ACTIVITY

Weight

Learning objectives: To collect the weight of different bags and compare them.

Pre-requisites: Knowledge of using weighing balance .

Materials required: A weighing balance and 5 school bags.

Procedure:

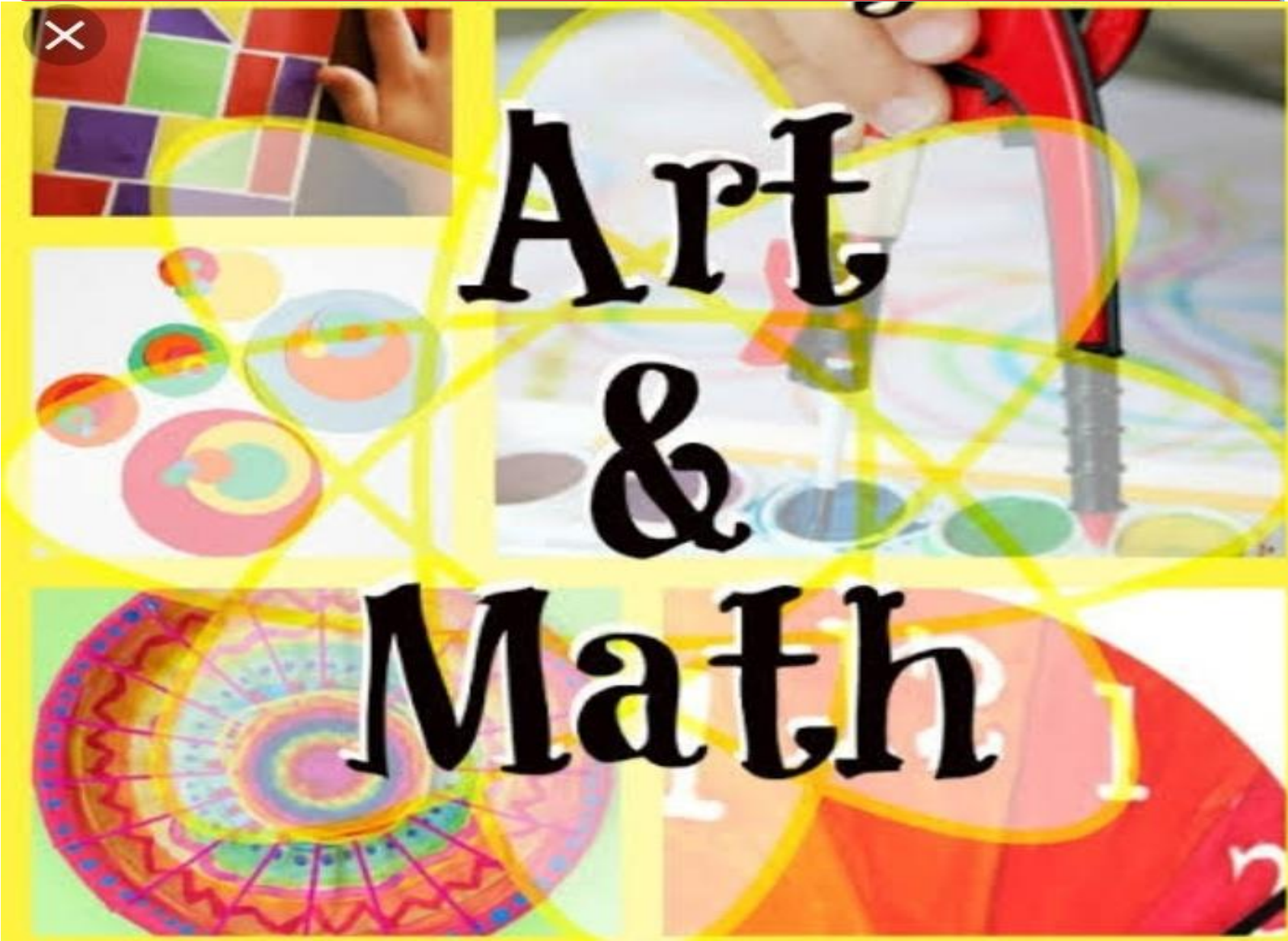
- Arrange a weighing balance in the class.
- Weigh the bags of any five students with the help of weighing balance.
- Note your observations in the given table.

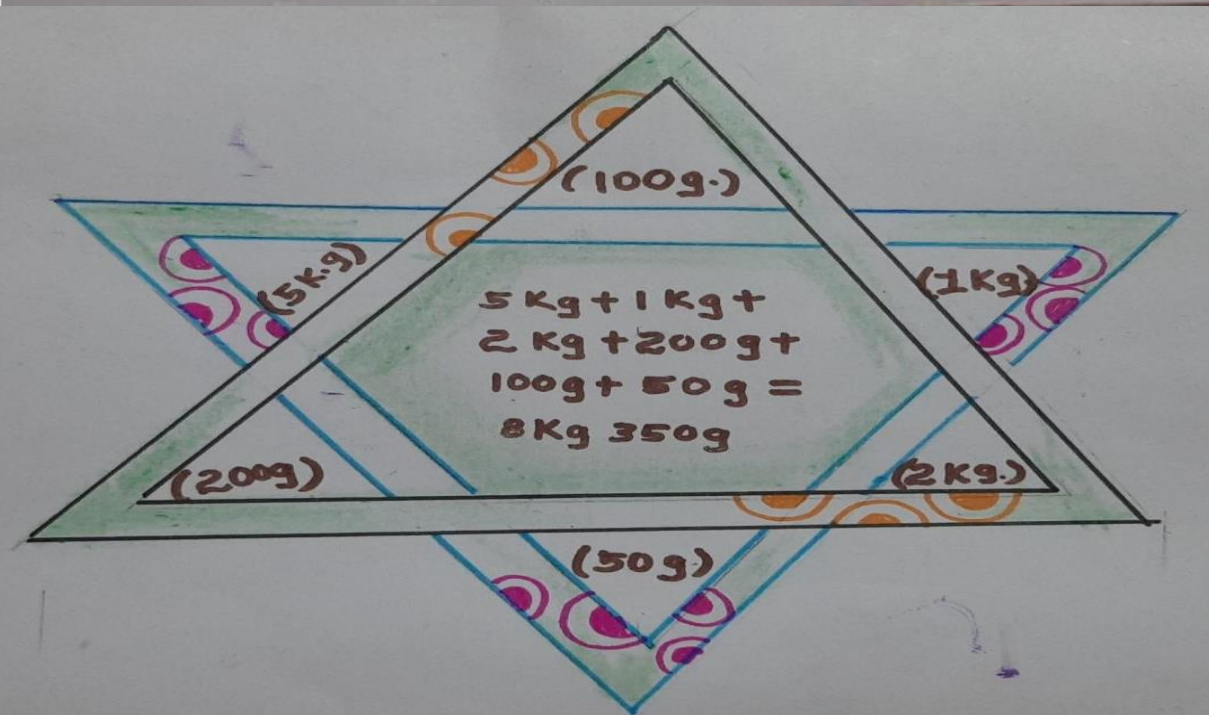
Sl.No.	Name of the student	Weight of bag (kg)	Weight of bag (g)
1	Akash Ray	2kg	150g
2	Ankit Raula	3kg	750g
3	Somya Panda	3kg	490g
4	Sandeep Ram	2kg	485g
5	Subham Dash	3kg	740g

Observation: Compare your observation:

- 1. Whose bag is the heaviest?**
- 2. Whose bag is the lightest?**
- 3. What is the different between the heaviest and lightest bag?**




ART INTEGRATION



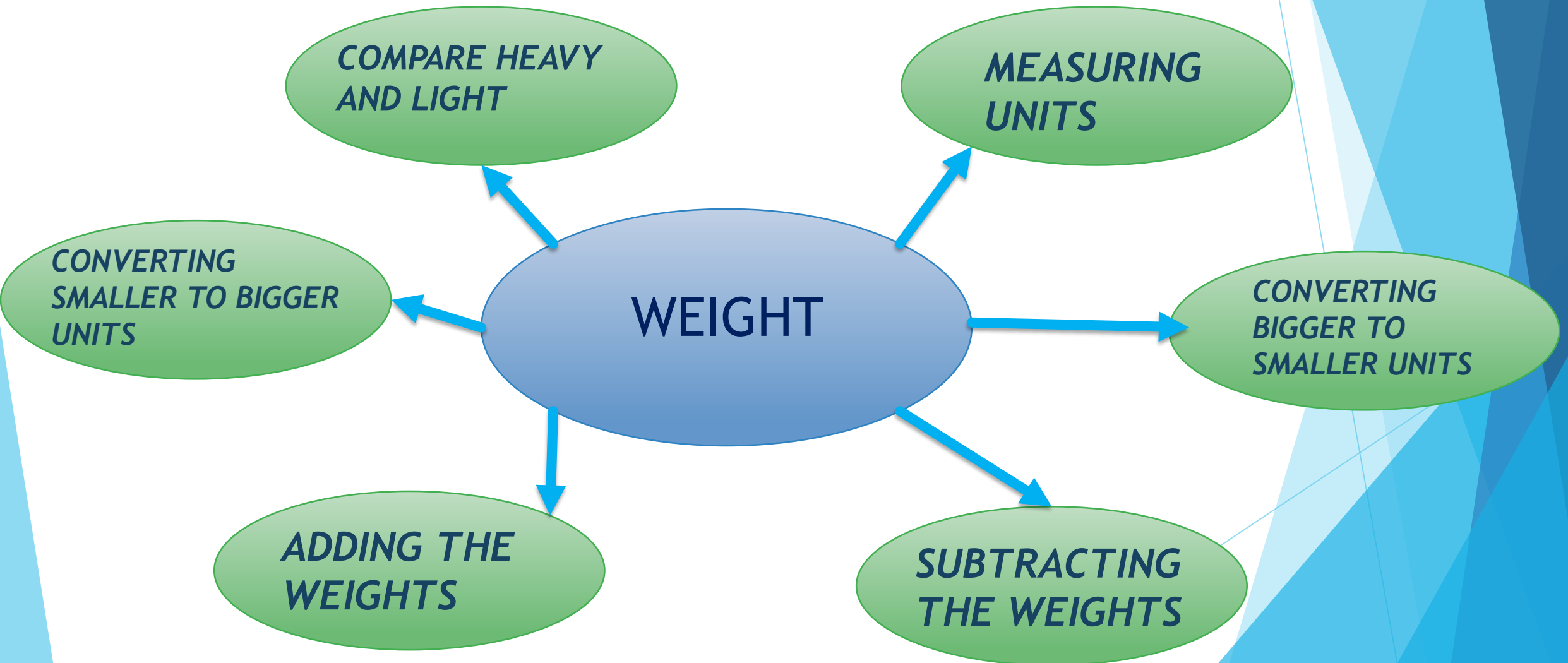


Art
&
Math

STUDENT ACTIVITY ON ART INTEGRATION

	Weight!	Let's *guess!
	Metric	U.S. Cust
Bowling BALL	7.2 Kg	* 16 lbs *
	3g	* 0.1 oz *
	5g	* 0.2 oz *
	* 4.5 Kg *	10 lbs
LUNCH BOX	* 1 Kg *	2 lbs

CONCEPT MAP



THANK YOU