CHAPTER -9

MEASUREMENT

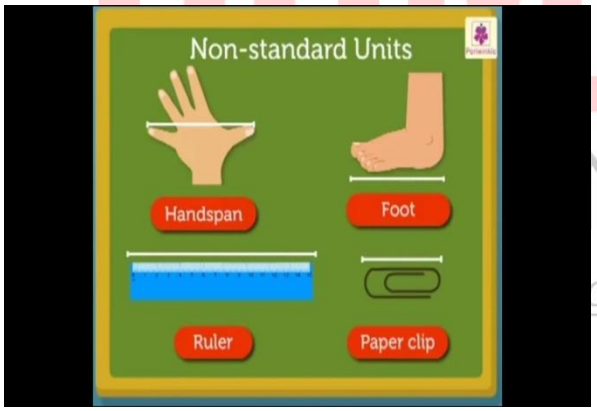
STUDY NOTES

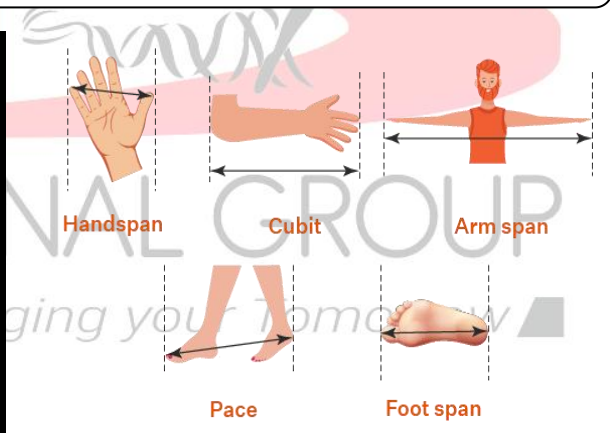
Learning Objectives:

- **Measurement of length (Using Non-standard Units)**
- **Measurement of length (Using Arbitrary Units)**
- **Measurement of Weight (Using a Balance)**
- **Measurement of Capacity**

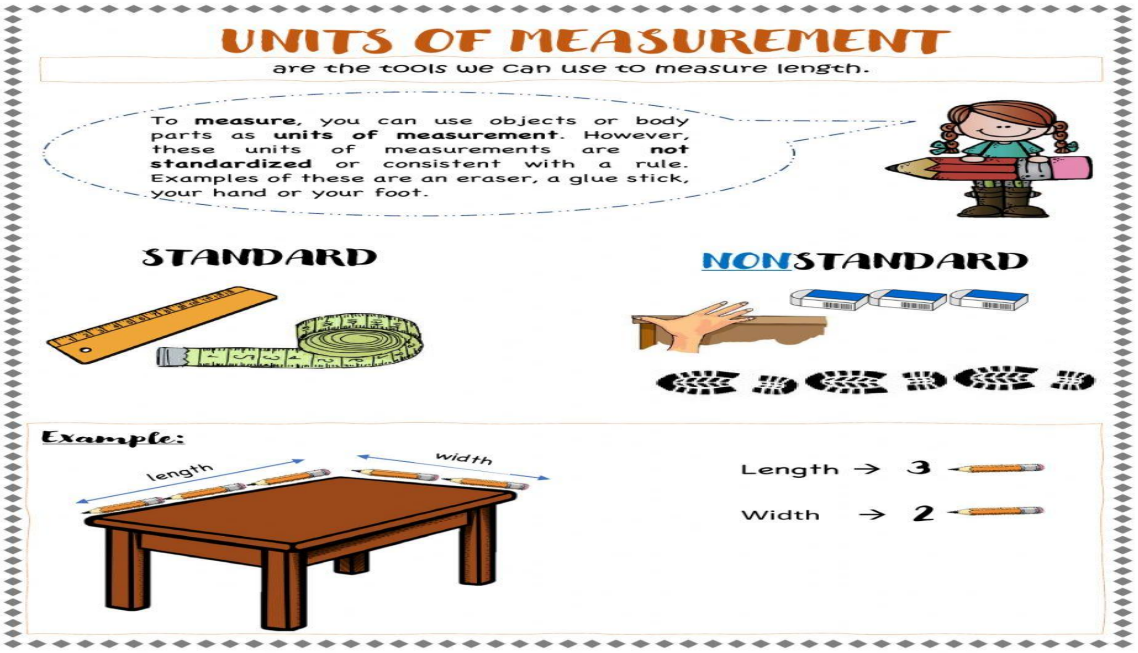
Measurement of Length (Using Non –standard units)

Length gives us an idea about how long or short an object is. The length of various objects such as desk, table, bed ,room etc. can be measured by using different parts of our body such as hand span, arm span, palm, cubit, foot and pace.

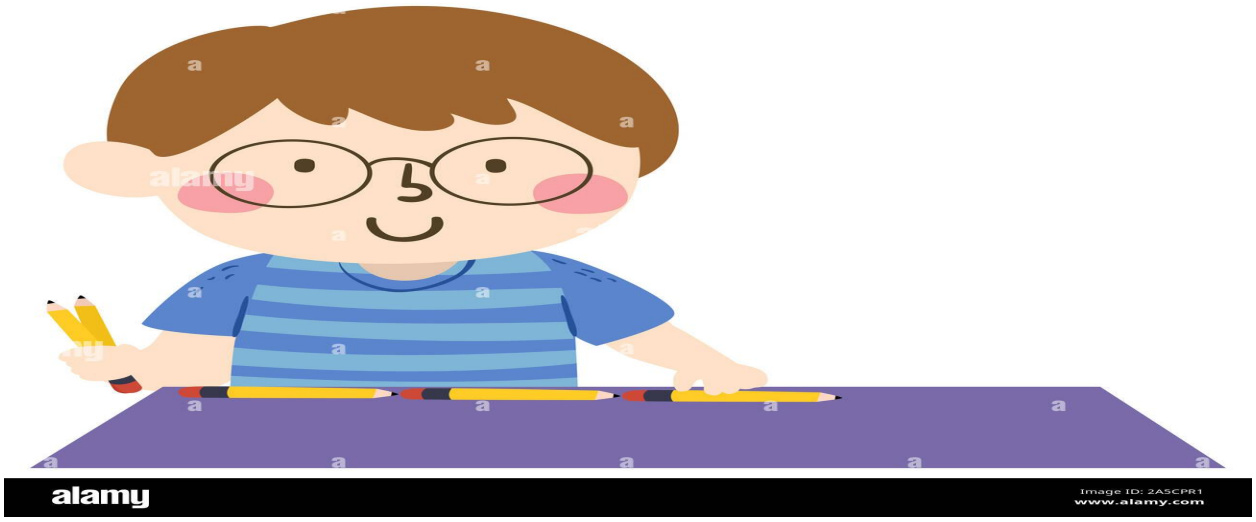




The body parts are non-standard units of length because the size of body parts vary from person to person. So if the same object is measured by different persons using their body parts , we may get different measurements of the same object.



Measurement of length (Using Arbitrary Units)



Length of an object may be measured by some other smaller objects such as paper clips, match sticks, pencils, crayons etc. Such objects which are used to measure the length of other objects are called arbitrary units.

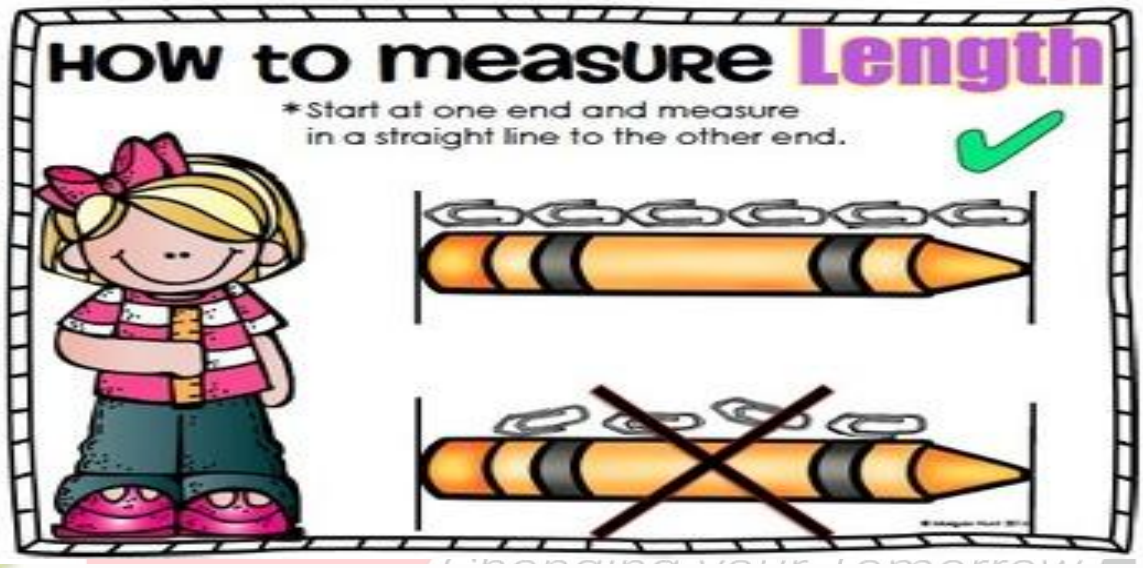
· Cubes

· Yarn

· Paper clips

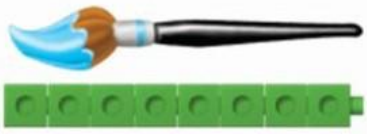
· Pencil

· Shoe



Write the length.

1. 

2. 

2 cubes

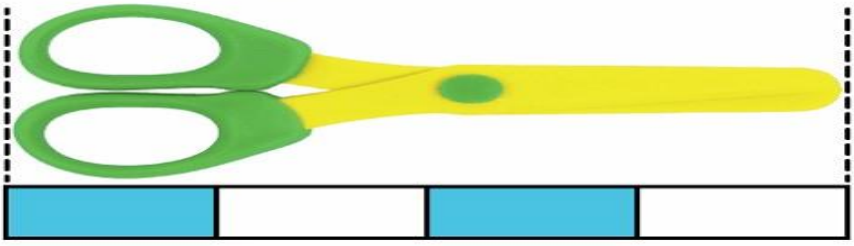
8 cubes

Examples:-

How many paperclips long is the pen?

4

Fill in the missing number.



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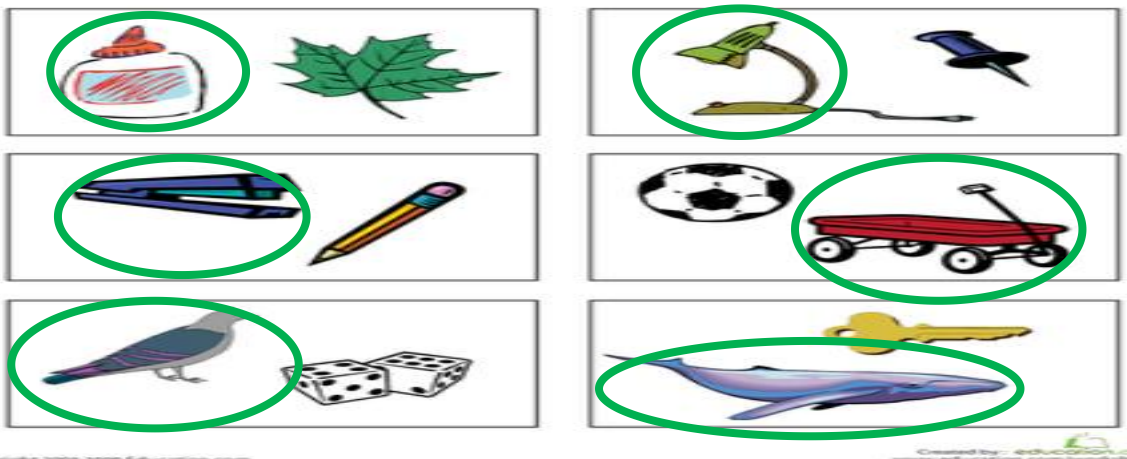
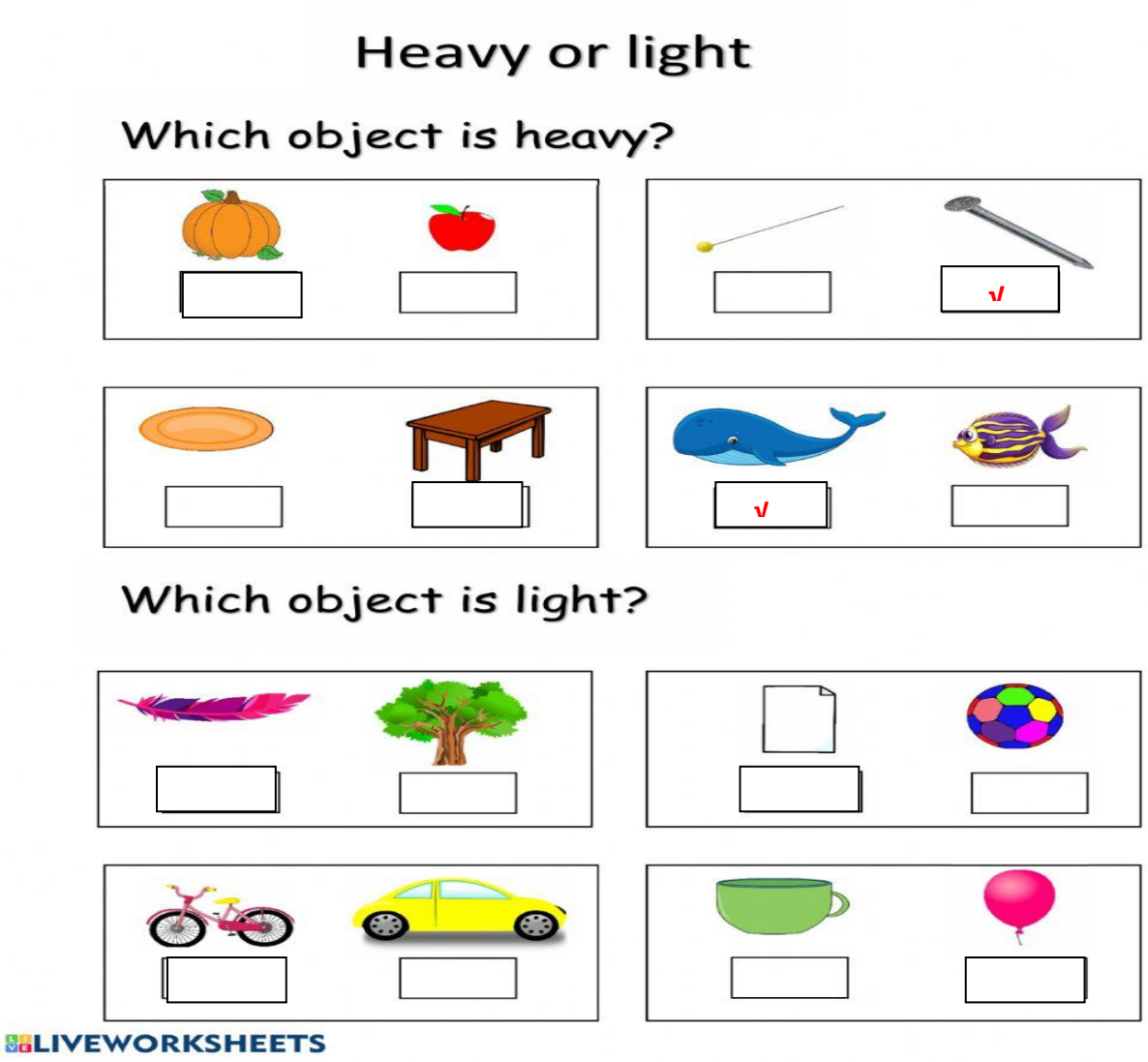
MEASUREMENT OF WEIGHT

Weight gives us an idea of whether an object is heavy or light.

Weight

Circle the object that is heavier.

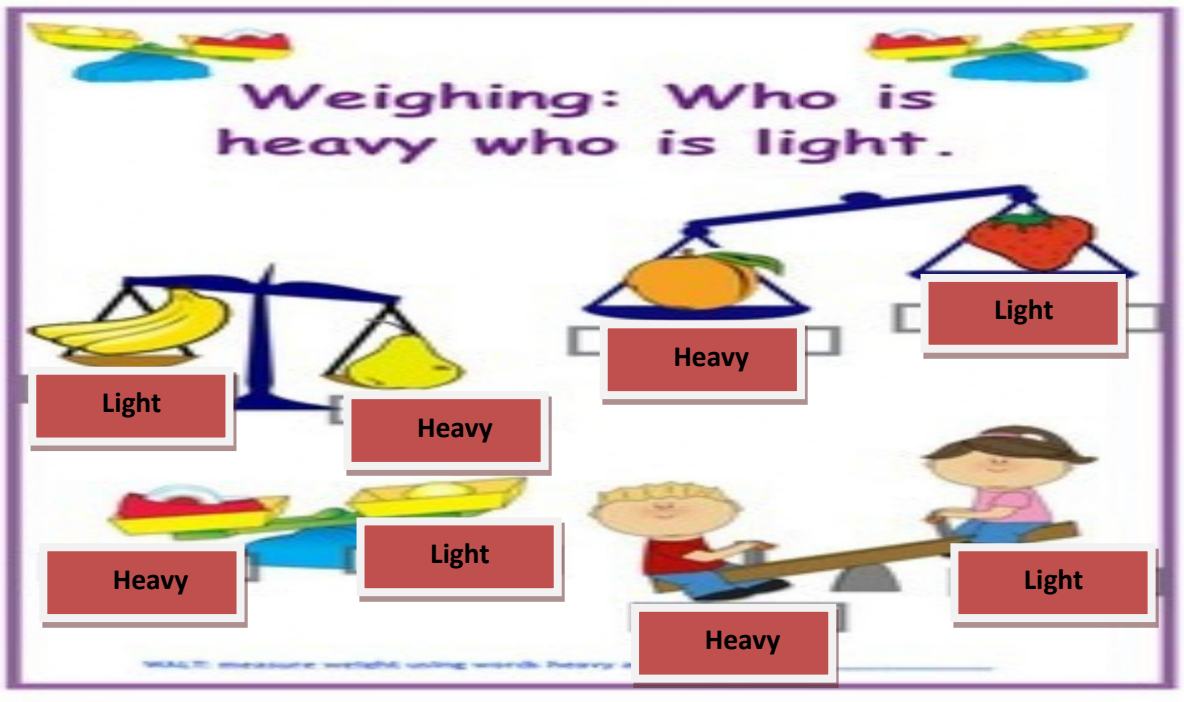




MEASUREMENT OF WEIGHT USING A BALANCE:-

- **The pan having more weight moves down**
- **The pan having less weight moves up.**
- **The pan remain at the same level if the weight on both the pans are equal.**

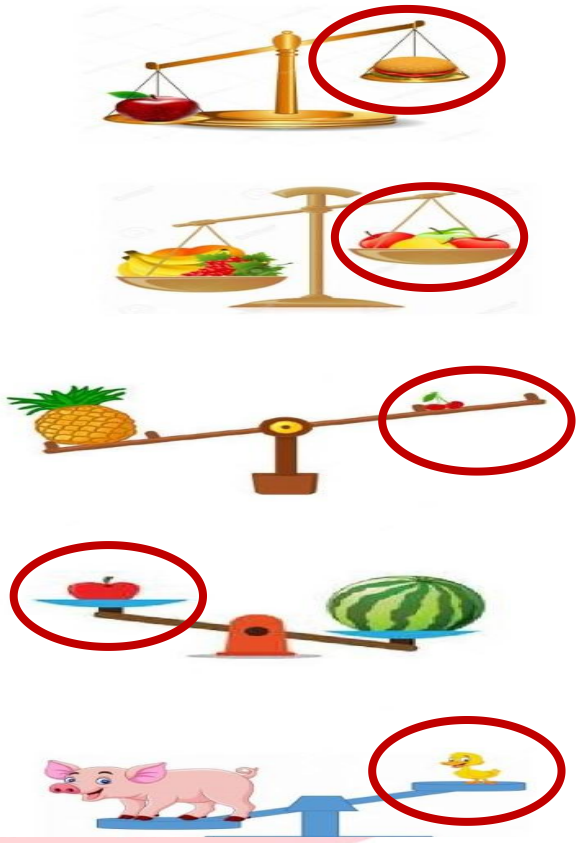
Examples of measuring weight using balance:-



Some more examples to explore how to measure weight by using pan balance:-

Select the heavy objects

Select the light objects



Measurement of Capacity:-

The capacity of a container is the quantity of a substance that the container can hold.

Take a bucket and fill it using smaller containers like a jug and a mug.

We see that 5 jugs of water are required to completely fill the bucket. So, we say that the capacity of the bucket is equal to that 5 jugs. Similarly, the capacity of the bucket is equal to that of 25 mugs. In the same manner, we can fill the jug using a glass or a cup or a bowl. We find that:

- Capacity of the jug is equal to that of 6 glasses.
- Capacity of the jug is equal to that of 10 cups.
- Capacity of the jug is equal to that of 8 bowls.

Some examples of Capacity:-

MIND MAP