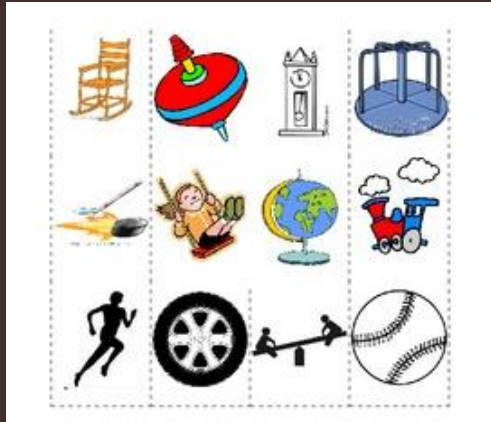


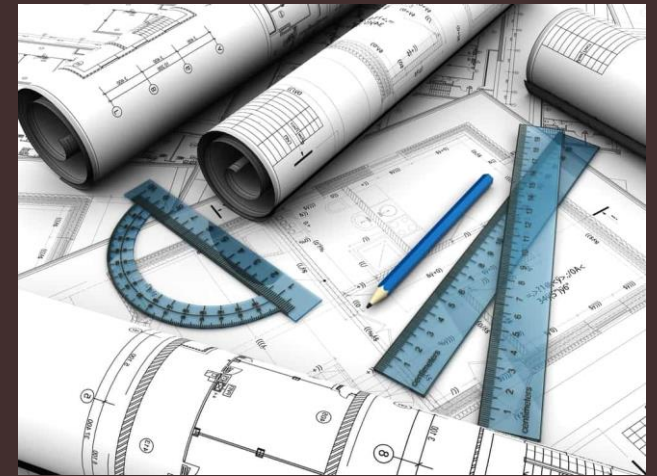
Module 2

Class 6



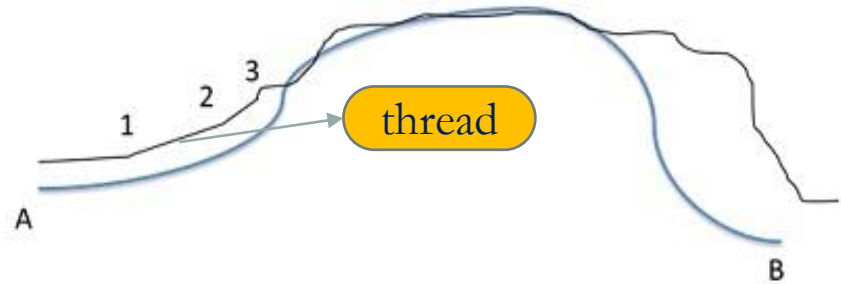
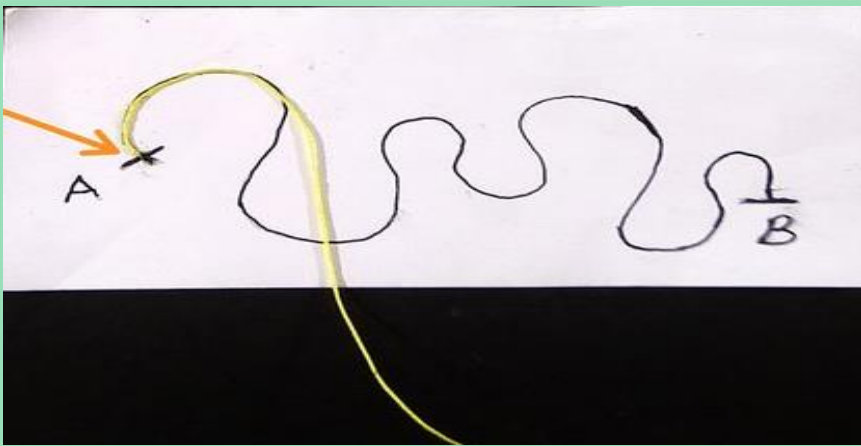
Chapter 10 - Motion and measurement of distances

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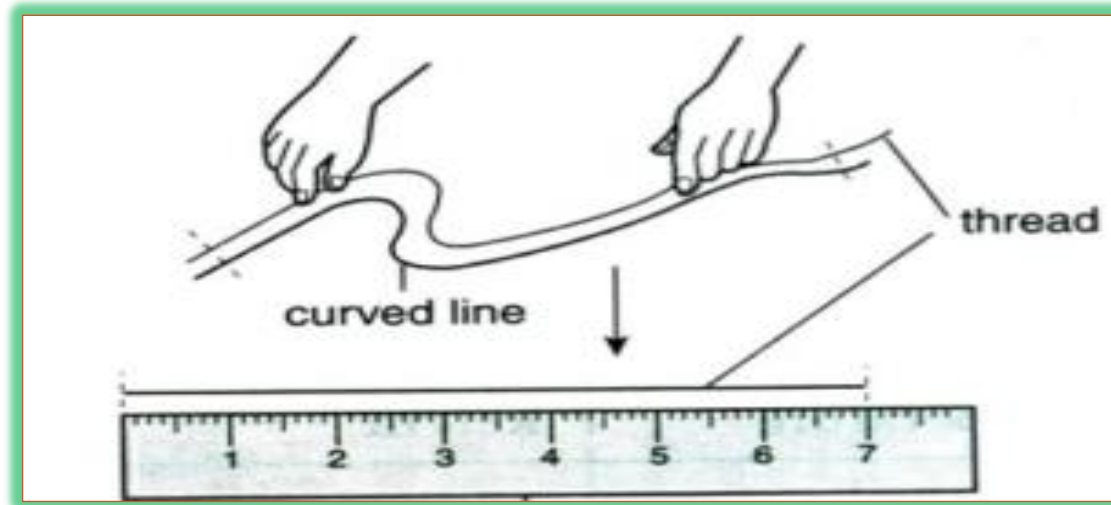
Measuring the length of Curved Line

- Take a non-stretchable string or a thread and tie a knot at one of its ends.
- Place the knotted end of the thread at one end of the curved line.
- Holding the thread steadily with your fingers, stretch it along the curved line until you reach the other end.



Measuring a curved line. Take small portions of the line and measure using the thread. First measure from A to 1, then 1 to 2, then 2 to 3 and so on, using the same thread.

- Now make a mark on the thread when it reaches the other end.
- Finally, place the thread along a meter scale and measure the length between the knot and the marked point.
- This gives the length of the curved line.



Moving things around us



Motion

Motion is defined as change in the position of the object with respect to time.

There are three types of motion

Rectilinear
motion

Circular
motion

Periodic
motion

Rectilinear Motion

Motion along a straight line is called Rectilinear motion



March past of soldiers



Cars moving on a straight road



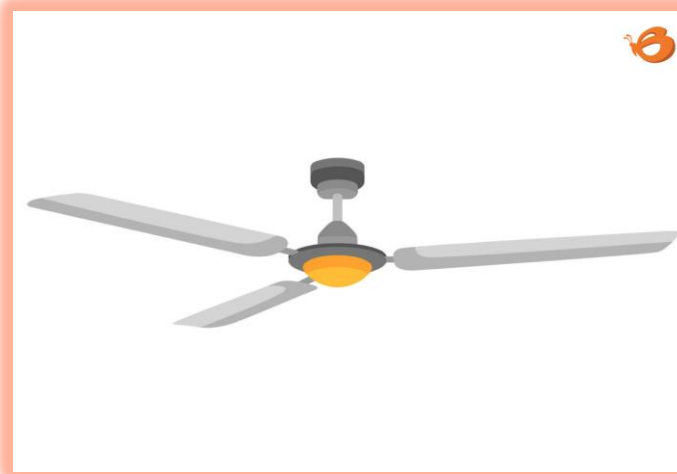
Athletes in a 100 m race

Circular motion

An object is said to be in circular motion when it moves around a fixed point called axis



Motion of a
Giant wheel



Motion of blades
of a ceiling fan



Motion of the
hands of a clock

Periodic Motion

Motion that repeats itself after a period of time is called as Periodic motion



Motion of a pendulum



Motion of children on a swing



Branch of a tree moving to and fro

Can an object undergo more than one motion at the same time?

A ball rolling on the ground shows both rotational and rectilinear motion



A sewing machine remains at the same location while its wheel moves with a circular motion. The needle moves up and down exhibiting periodic motion

The pulley on which the rope is put has circular motion and bucket has linear motion



Drawing water from well

The frisbee has rotational motion as well as linear motion in the direction it moves.



Lets summarise what we have learnt:

- To measure the length of a curved line
- Motion is defined as change in position of an object with respect to time.
- There are three types of motion:
 Rectilinear motion , circular motion and periodic motion.
- Motion along a straight line is known as rectilinear motion
- An object is said to be in circular motion when it moves around a fixed point called axis.
- Motion that repeats itself after a period of time is called periodic motion.
- Objects can undergo more than one motion at the same time.

Thank you

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