Lesson-5



Look at the picture given below. Where do you find the 'O' shape - discuss.



Let us find out where we can see the round \bigcirc shape in the picture







Draw the following



Let us do the activity

Take a bangle and place it on a piece of paper and mark it around with a pencil. Remove the bangle. Have you not found a round shape on the paper?

This round shape is called a **Circle**.





Cut a circular piece of paper

• Now fold the circular piece of paper in two equal halves.



- Fold it again.
- Now, unfold the paper
- Draw two lines along the folds.
- The point where the two lines intersect is the Centre of the circle
- Measure the two lines. Are they equal? The two lines are the Diameter of the circle.

Let us do-

Instruction to the teachers : Take a long rope, a long stake and a short stake. Bring the students outside the classroom. At first, fix the long stake at the centre of the ground. Tie one end of the rope around the one end of the stake. Tie the other end of the rope at one end of the short stake. Ask one of the students to hold tightly the short stake and ask him/her to go around the long stake and mark the path as she/he goes. The marked path describes a circle. You may lengthen or shorten the rope and accordingly ask the students to draw circles of various sizes. You may also bring home the cancept of a circle by asking the students to stand at equal distances from the long stake.

Let us know

The round figure drawn by the short

stake is the circle.

The long stake is the centre of the circle.

The length of the rope from the long stake

is the radius of the circle.

(Length of the rope \times 2) is the diameter of the circle.

Half the diameter is the radius.

Measure the diameter and radius of the circle and write

Radius =..... Diameter =.....



diameter

Radius

Centre

Let us draw a circle with compass

- Have you noticed a tool like the one shown here in a Geometry box?
- Loosen the screw of the compass and insert a sharpened pencil in the ring. Now, fix the pencil tight with the screw.
- Hold apart the compass
- Hold the pointed end of the compass firmly on a piece of paper.
- Keeping the pointed end of the compass fixed, slowly move the pencil and allow it to complete one round.
- > You will find that the pencil draws a circle on the paper.
- Mark the point where you fixed the pointed end on the paper
- > The point is the centre of the circle.



Instruction to the teacher : The teacher will help the students to draw circles with the compass.

Let us take measurement with the scale to draw circle.

Hold the pointed end of the compass on the '0' mark of the scale and stretch the pencil to touch the 2 cm mark on the scale. Now fix the pointed end of the compass on the paper and slowly move the pencil to complete a round. You will find a circle of radius 2 cm.





Draw circles with the radius given below.



Diameter =

Diameter =



Diameter =

Let us draw pictures of circles using a compass

(1) Draw a circle (2) From any point inside the circle draw another circle with the same radius. Mark the points where the two circles intersect at A and B (3) With 'A' and 'B' as centre draw another two more circles. Mark the points where these two new circles, intersect the first circle and taking these as centres draw another circles. Continue in this way. Look, what you have got.



Let us play

Take few litchi seeds. Cut the middle parts of the seeds in slice. Insert match stick through these slices to look like a top. Now, Swirl the tops about the match sticks.



What have you observed?

- Tick (\checkmark) the top which continued to swirl for a considerable time.
- The stick of which top is nearest to the centre. Write in the box
- Which top did not swirl at all?

