

SURFACE AREAS AND VOLUMES

Activity – 13

1. What we have to do?

To make a cone of given slant length and base circumference.

2. What is required?

Coloured paper, geometry box, colour pens, pair of scissors, glue stick

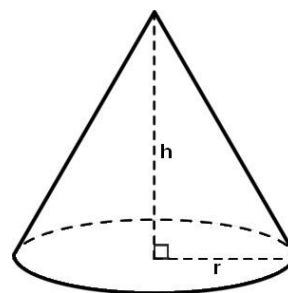
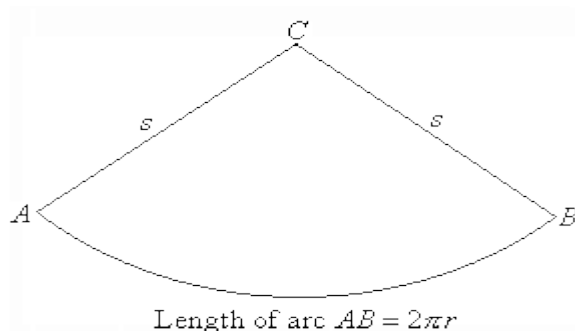
3. Time required: 30 min

4. What do we need to know?

Formula for the circumference of a circle, sector of a circle, Pythagoras theorem.

5. How will you proceed?

- 1) Draw a circle with radius equal to the slant height s .
- 2) Mark a sector CAB such that arc length AB equals the given base circumference of the cone.
- 3) Cut the sector ACB and gently fold, bringing the 2 radii CA and CB together.



6. What we have you observed?

It is observed that when the radii of the sector are joined, a cone is formed. The radius of the circle becomes the _____ of the cone. The arc length becomes the _____ cone.

7. What have you learnt?

8. What would you be interested in doing?

Using the above determine the radius and the height of the cone formed, using the formula for the circumference of a circle and Pythagoras theorem.

Real Life Application:

The above concept is our day to day life as Ice cream cone, birthday caps, laboratory instrument funnel, Traffic cones, children's toys, roof top of cottages etc....
