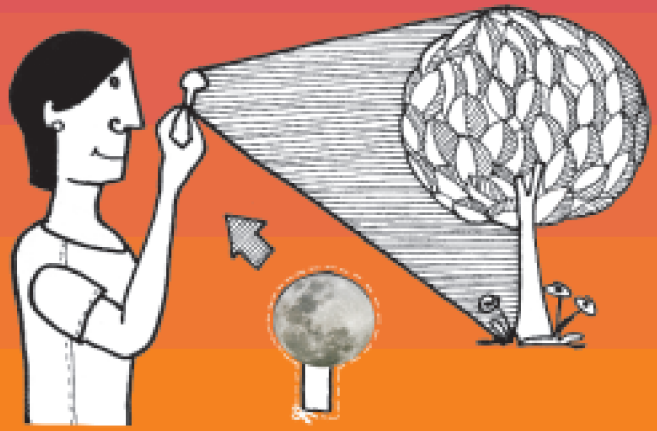
# How does the Moon cover the Big Sun?

The sun is almost 400 times larger than the moon but it is also 400 times more distant so they appear to be of the same size. Usually this apparent size of the moon is slightly larger than that of the sun so at the solar eclipse, moon can fully cover the sun. But the distance between the earth and the moon goes on changing significantly because moons orbit is substantially elliptical. So during some total eclipses the moon cannot fully cover the sun and small ring of the sun is seen surrounding the moon in the centre. This is the Annular Solar Eclipse.

It *is a remarkable coincidence of the nature that the ratio of the diameter of the sun to the diameter of the moon is almost exactly equal to the ratio of their distances.*

Cut along the dotted line



## Activity

Draw a Sun of about 15 on a wall.

Take the given cutout of the moon and stand at a distance of about 2 meters.

Adjust the distance of moon and see how it can fully cover the sun (Total Eclipse) or it marginally fails to cover the sun completely (Annular Eclipse). If you move your moon slightly sideways you would be able to see partial eclipse.

You can also perform this activity by covering a big tree or any other big object.