

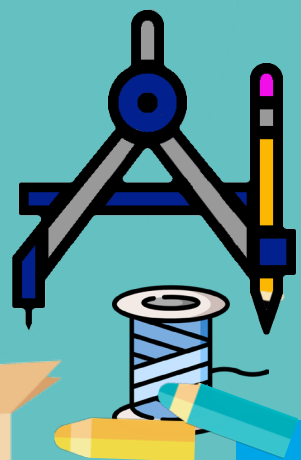
CREATE A SOLAR SYSTEM

Learning Objectives:

- Be able to draw the solar system.
- Know how to use a math compass to draw circles of different radius.

MATERIALS YOU WILL NEED:

- Cardboards
- Strings
- Colouring materials
- A math compass
- Scissors



Note: These measurements are not proportionate to the actual sizes and distances of the Sun and the planets.

INFORMATION:

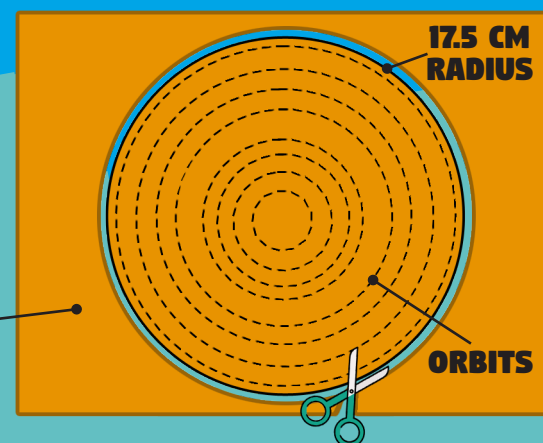
Object	Radius of the Orbit (cm)	Radius of the Object (cm)
Sun	-	15
Mercury	2	2
Venus	3.5	6
Earth	5	6
Mars	7.5	3
Jupiter	10	13
Saturn	12	12
Uranus	15	10
Neptune	17	10

STEPS:

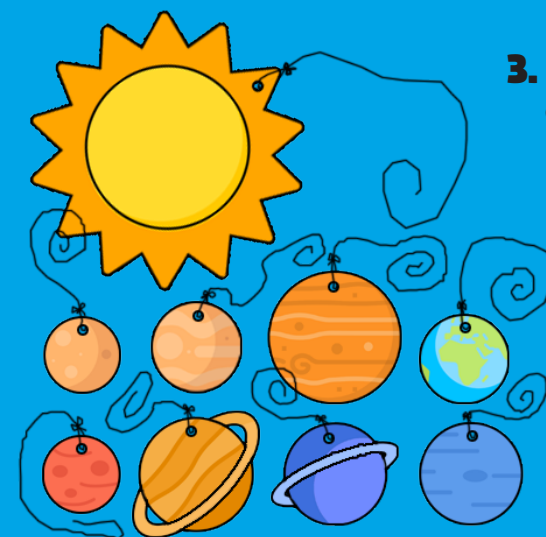
1. Draw a circle of radius 17.5 cm on a cardboard using a math compass and cut it out. Draw on this cardboard, the orbits of the respective planets based on the information table above. This will be the base to hang all the planets from.



CARDBOARD



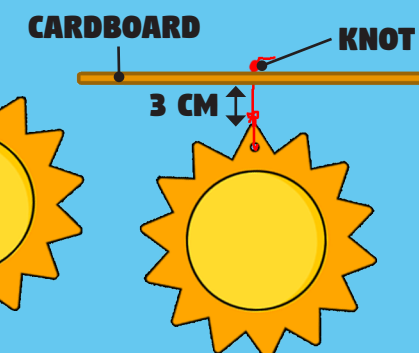
2. Draw out on another cardboard, the Sun and the planets of different radius based the table above. Colour them and cut them out. Remember to draw in the rings for Saturn and Uranus! To have a nicer looking final product, colour both sides of the Sun and planets.



3. Poke a hole through the Sun and each planet using the sharp end of the math compass, and tie a string through each of them.

4. Poke a hole through the middle of the base cardboard and thread the string of the Sun through it.

SIDE VIEW:



Tie a big knot so that the string does not fall through the hole. Note: Tie the Sun about 3 cm away from the base cardboard.

SIDE VIEW:

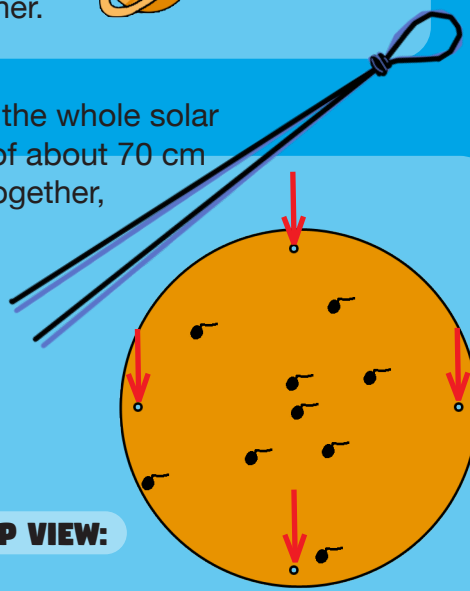


5. Poke a hole on each of the orbits to hang the respective planets from the base cardboard. Randomise the location of the holes and the lengths of the planets' strings so that they are not cluttered together.

6. To create a handle to hang the whole solar system, prepare 2 strings of about 70 cm each. Place the 2 strings together, fold them into half and tie a knot, leaving a loop.

Poke 4 holes near the edge of the base cardboard as shown, then thread each end of the strings in, and tie knots to secure.

TOP VIEW:



FINAL PRODUCT:

