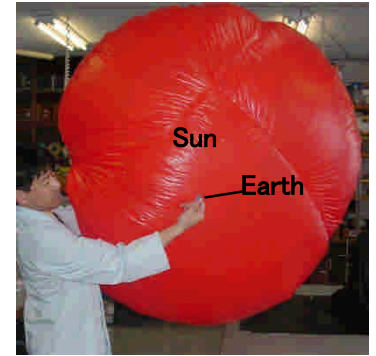




Let's Make 1/1billionth of the Sun and the Solar System



If the marble size diameter is 1.3 cm, and it is the earth, what will be the size of the sun?



Point

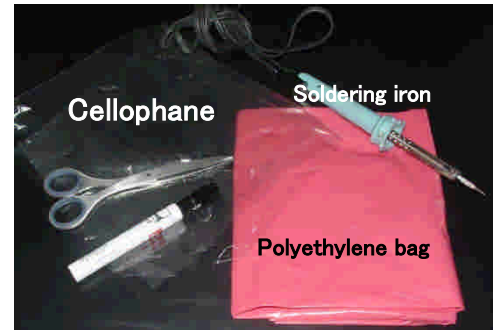
One over One billionth of space



Materials



Polyethylene bag (70L)
Permanent Markers
Soldering iron (20w)
Blower
Scotch tape
Cellophane
Scissors



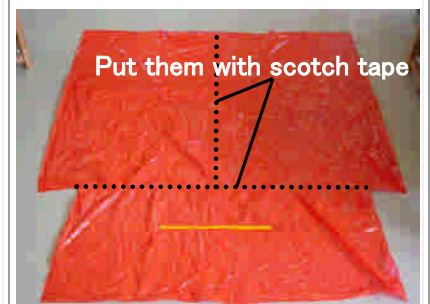
How to do

Experiment

1 Open the polyethylene bag with scissors.

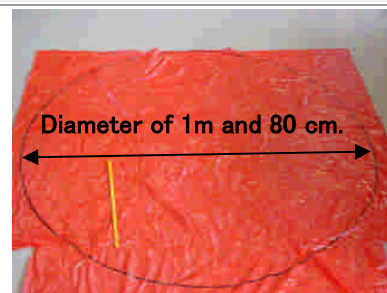


2 Connect 3 polyethylene bags using scotch tape to make larger polyethylene sheet. Make two large polyethylene sheets.



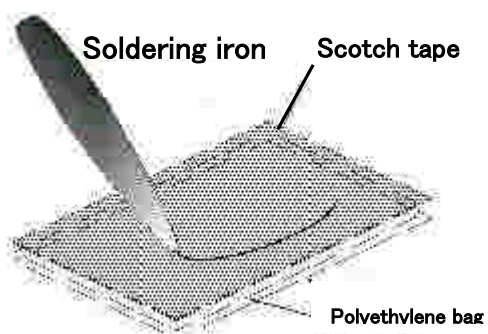
3

Place one of the polyethylene sheet above the other and draw a circle using permanent marker with a diameter of 1m and 80 cm.

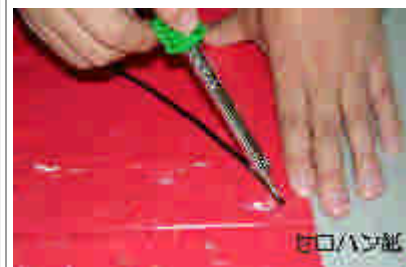


4

Place the cellophane on the polyethylene sheet. Trace over the line (method 3) with soldering iron slowly to bond the upper and lower polyethylene sheets. Leave a space for inflating air.



Illustration



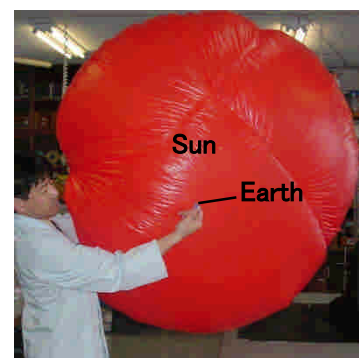
5

Inflate finished polyethylene. This is model of the sun.



6

Completion ! !



Progress

In one over billionth of space, how far does the sun from the earth? With reference to the diagram below, at what distance is the location of sun from the earth?

Information

- Show the size and distance of planets and moon compare with the sun. You can compare them with many things around us. (Ex, paper clay or balloon)
- If you don't use cellophane, you can't bond polyethylene neatly.

	Sun	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Moon
Diameter of the heavenly bodies (cm)	139	0.49	1.2	1.3	0.68	14.3	12.1	0.35
Distance from the sun (m)	0	58	108	150	228	778	1419	0.38

※Distance of the moon is from the earth.