

Science at home

Mission:

Make a scale chalk drawing of the Solar System!

We love chalk art, we love maths and measuring, and we love the planets!

Draw a chalk solar system on your footpath and learn about the planets.

Materials:

Chalk

A way of measuring 1 metre.

This could be a tape measure, a metre ruler, or a regular 30cm ruler used a few times.

A footpath that is about 45m long. You can estimate this by deciding to use a big adult stride-length as equal to a metre. Check your stride length with the metre measurement first to be sure.

More to do:

+ Download the SkyView app to find out where the planets are in the sky at the moment.

+ Investigate: What the different planets look like and what they are made of.

What is the 'Great Red Spot'?

Why is Pluto known as a 'dwarf planet'?

Solar flares, methane eruptions on Uranus, the slowly disappearing rings around Saturn, and the possibility of life on Mars.

Make:

At the beginning of your footpath, draw the Sun. Make it huge! Then use the following scaled distances to draw your planets. For distances up to a couple of metres, use your ruler or tape measure. After that you can estimate the distance with stride-lengths roughly equal to a metre.

Science tip: Although we are not drawing the size of the planets to scale, we can attempt to compare the sizes in a general way.

Time to measure!

0.0m SUN

Colour: White-yellow

Size: Big! (size of a hula hoop)

0.4m MERCURY

Colour: pale brownish-grey

Size: small (size of a tennis ball)

0.75m VENUS

Colour: very pale yellow to white

Size: small (size of a tennis ball)

1.0m EARTH

Colour: blue with white clouds, and a little bit green

Size: small (size of a tennis ball)

1.6m MARS

Colour: red with white ice caps

Size: small (size of a tennis ball)

5.6m JUPITER

Colour: brownish-orange-red with some white stripes.

Size: very big! The biggest of all the planets (size of a basketball)

10.2m SATURN

Colour: pale gold, with a set of rings around it, made of ice.

Size: draw Saturn nearly as large as Jupiter.

20.6m URANUS

Colour: blue

Size: smaller than Saturn and Jupiter, but larger than the first four planets.

32.3m NEPTUNE

Colour: blue

Size: smaller than Saturn and Jupiter, but larger than the first four planets.

42.5m PLUTO

Colour: light grey

Size: the smallest planet (size of a golfball)

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#moretodo

#moretodiscover