

Solar system hopscotch



Overview:

Hop your way around the solar system while learning about the planets.

What you need:

- Coloured chalk
- Driveway or concreted area
- A stone

Note: the planets' relative distances from the Sun and sizes are not entirely accurate in this version so that hopscotch is able to be played more easily.

Instructions:

1. Help the kids to draw an outline of the Sun on your concreted area and label.
2. Draw the planets in order from Mercury to Neptune/Pluto at fairly equal distances out from the Sun.
3. Label the planets, colour them in and add some detail.
4. You could watch some videos, visit NASA's kids website, SpacePlace: <https://spaceplace.nasa.gov> or read books to find out more information about the solar system.
5. Take turns to visit the planets in order. First, kids can try to throw a stone onto Mercury, or its orbit. On their turn, when the stone lands on Mercury they jump over Mercury to Venus, then onto the other planets, in order, one at a time. They then turn around at Neptune/Pluto (the last planet) and jump back onto all the planets on the way back to Venus. Stop at Venus and balance on one leg, bending over to pick up the stone on Mercury. Lastly, jump over Mercury back to the Sun.
6. If your stone doesn't land on the planet you are up to or you fall over, the next person has their turn.
7. Repeat with throwing the stone onto Venus and jumping over it, then Earth, Mars etc.. all the way to Neptune/Pluto.

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Relative distances and diameters of the planets

For a greater challenge or an older age-group, draw out a more accurate chalk representation of the solar system using relative measurements. See the table below.

Planet	Relative distance (million kilometres from the Sun)	Size (diameter in kilometres)
Mercury	60	4,900
Venus	110	12,100
Earth	150	12,800
Mars	230	6,800
Jupiter	780	143,000
Saturn	1,400	120,500
Uranus	2,900	51,100
Neptune	4,500	49,500
Pluto	5,900	1,400

(Figures are rounded for ease of measurement)

Wait... is Pluto still a planet?

Pluto is a dwarf planet according to NASA. It sits in the Kuiper Belt beyond Neptune with other dwarf planets.

