

Lesson 4 - Space

Create the Solar System



Curriculum Links

Scotland

Space
SCN-06

UK

introduced to a model of the sun and Earth that enables them to explain day and night. Pupils should learn that the sun is a star at the centre of our solar system and that it has 8 planets

Key Concept

I can explain the order of the planets and have some idea of the distance between them

4 QUALITY
EDUCATION



Background

Space is so often taught indoors, but why not take learning outside. This sequence has been created in winter - when we see the night sky earlier and the moon can be visible during the day.

The lessons here can be delivered in any order, pick and mix what suits your needs and class interests.

Here, we have a short series of lessons which explore this topic.

- Create the constellations
- Measure the strength of the sun
- Measure the size of the sun, moon and planets
- Create the solar system
- Make a rocket
- Record a moon diary

Resources

- measure tape
- markers/ cones

Wider Skills

- problem solving
- maths skills
- observation skills

Lesson

This lesson is ideally delivered outside due to the scale of the measurements. Explain to the children that in this lesson we are going to discover how big the solar system is and how far apart the planets are.

Planet	Distance from the sun	Distance in meters
Mercury	35,000,000	3.5
Venus	67,000,000	6.7
Earth	93,000,000	9.3
Mars	142,000,000	14.2
Jupiter	484,000,000	48.4
Saturn	889,000,000	88.9
Uranus	1,790,000,000	179
Neptune	2,880,000,000	288

You may need to half these distances depending on the size of your outdoor area

Older Classes

Can they work in groups and can they measure accurately

Younger Classes

They will have difficulty in measuring accurately long distances, you may choose to switch meters for cm in this lesson

Next Steps or Links

Other lessons in the pack

Planet	Distance from the sun Miles	Distance in meters	Smaller Scale in meters
Mercury	35,000,000	3.5	0.87
Venus	67,000,000	6.7	1.67
Earth	93,000,000	9.3	2.32
Mars	142,000,000	14.2	3.55
Jupiter	484,000,000	48.4	12.1
Saturn	889,000,000	88.9	22.22
Uranus	1,790,000,000	179	44.75
Neptune	2,880,000,000	288	72