

ACTIVITY 3.4 THE SOLAR SYSTEM

*From Chapter 3 of the Principia
Space Diary*
[http://principiaspacediary.org/
activities/the-solar-system](http://principiaspacediary.org/activities/the-solar-system)

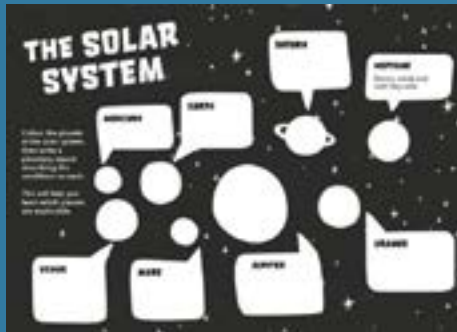
LEARNING LEVEL

KS1, KS2, P1-5

CURRICULUM LINKS & DIFFERENTIATION IDEAS

View detailed curriculum links for England, Scotland, Northern Ireland and Wales, plus differentiation ideas for your region and year level.

[principiaspacediary.org/
curriculum-planner/](http://principiaspacediary.org/curriculum-planner/)



Resources Required

- Computers with internet access
- Information on planets (optional)
- Colour pens and pencils

Background to this Activity

Earth's solar system has eight planets, all in orbit around the Sun, along with five small or 'dwarf' planets, and 173 known moons. And of course, there are other things: 3,319 comets, 670,452 asteroids, meteors and meteorites, manmade satellites and the ISS orbiting Earth. The planets in our solar system are all very different: from their size, weight and temperature to what they are made of.

Running the Activity

This activity is about exploring the Solar System. Students need to read and extract key facts about the different planets in our Solar System: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. First find out what students already know about each of the planets.

Then students write a planetary report describing each of the planets in the solar system on the activity sheet. This will help them learn which planets are explorable.

We've prepared some information on the other planets, for students to use in the classroom. You can find these resources on the Space Diary website [http://
principiaspacediary.org/exploring-solar-system/](http://principiaspacediary.org/exploring-solar-system/).

This is also a great opportunity to carry out some independent research. Students can use their computing skills to research the planets and identify key facts about them such as their size and number of moons.

Students can further explore the Solar System by learning how quickly different planets orbit around the sun. Ask them to calculate what their age would be on different planets, using this tool: [http://theplanets.org/
age-on-planets/](http://theplanets.org/age-on-planets/)

Questions for the Class

- What makes a planet explorable?
- Which planets do you think might be possible for us to visit in the future? Why?
- How might the long-duration missions to the ISS be used as a stepping stone to visit other planets?
- If it is not possible for humans to visit a planet are there other ways to explore them?
- A good way to remember the order of the planets in our solar system is: Many Vile Earthlings, Munch, Jam, Sandwiches, Under, Newspaper, Piles. Now Pluto is no longer recognised as a planet can students find a new way of remembering the order?