



Out into space

Age Range: Primary

This activity is designed to investigate the Solar System, stimulate creativity and develop mathematical skills.

Time: 45 minutes.

Curriculum links: Science, English, Mathematics, ICT, Art and Design and Music.

Further Information

It is important that children have knowledge of the Solar System. In this activity they will be introduced to the planets within our Solar System, and to an imaginary planet which has recently been discovered. It is important to explain to them that this does not really exist.

There are eight planets in our Solar system. Pluto is now regarded as a 'dwarf planet'.

Mercury Mars Venus Earth
Saturn Uranus Jupiter Neptune

Explain the difference between a **planet**, and a **star**.

What is a planet?

A planet has no light of its own. Planets shine because they reflect sunlight. Planets never twinkle. You will notice the movement of planets because they are so much closer to the earth. Most of the planets look a lot larger through a telescope because they are much nearer to us. The temperature on a planet is much lower than a star. We have eight planets in our solar system.

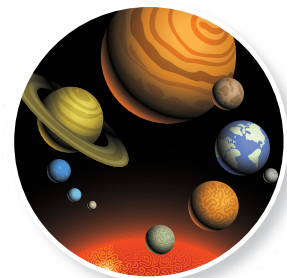
What is a star?

A star has its own light and twinkles at night. Because stars are very far away, a telescope can only make them look brighter but not larger. Stars have extremely high temperatures. There are literally billions of stars in the universe.

Further investigations could include the Milky Way and other constellations.

Get the children to find out which planets are made of gas and which are solid. Further study could include finding out the names of the natural satellites that travel around some of them. E.g. the Moon around the Earth. Using the template and images of the planets provided, ask the children to place the planets in order showing their distance from the Sun.

Part of this activity will be to use a new currency which only exists on the imaginary planet.



Activity

Scientists have discovered a new planet which has also been visited by The Doctor. They have named it **Whatho**. The people on this planet, who look like humans, use one type of currency all over their world which includes **zots**, **zats** and **zigzats**.

zots look like this



zats look like this



A **zigzat** looks like this



The inhabitants of Whatho grow lots of strange vegetables which they sell to each other. There are no mammals on this planet, only giant insects.

Using the sheets provided, ask the children to solve some of the sums, and draw a picture of a market stall with fruit and vegetables, on Whatho.

Lower

Using just zots and zats make up some simple sums. Ask the children to draw some of the other coins they think people might use on a different planet.

Advanced

Write about a day in the life of an inhabitant of the planet Whatho. How might it be different from your day? Make up a type of currency for your own planet and create some of your own simple sums.

Further ideas

- Obtain a copy of The Planets Suite by Gustav Holst and listen to a selection e.g. Mars, Jupiter, Venus. Make up a dance to go with one of the planets. Fit the dance or mime to the mood of the music.
- Get the children to make up another planet and give it a name. They have to invent their own currency. What kind of things can they buy on their planet and how much do they cost in their currency?
- Imagine that the people of Whatho are able to visit the United Kingdom. If there are ten zats to a pound, how many pounds will a person from Whatho get for 100 zats? How many zats will they pay for a vegetarian meal costing £25? Make up some of your own currency conversion charts.
- Which of The Doctors do you think would enjoy visiting Whatho and why?
- Draw a picture of the countryside or a town on the planet Whatho. Why would The Doctor find this an interesting place to visit?
- Investigate the other planets in our solar system using the Internet and create your own chart with ten facts about each planet.

