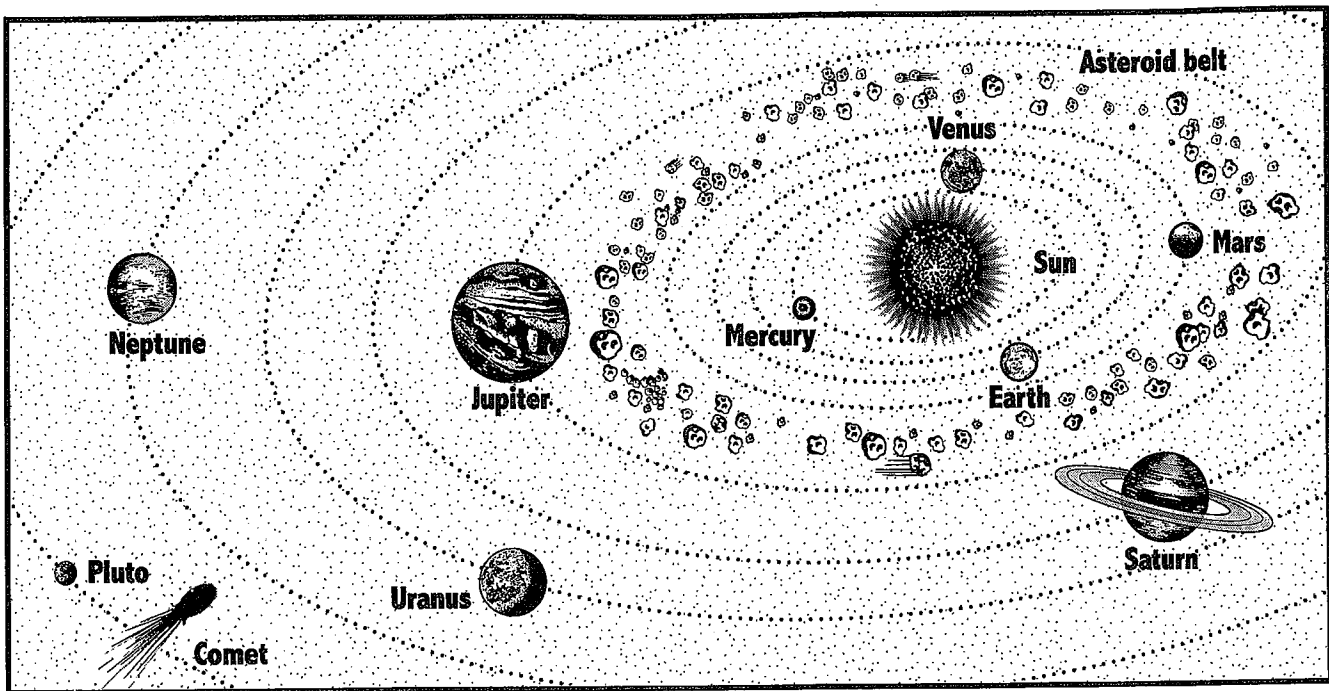


# The solar system – 1

- As the name suggests, the solar system is centred around the sun ('Sol').
- The objects which travel around the sun include the planets and minor planets, natural satellites such as moons, comets, meteoroids and the asteroid belt. Cosmic dust and pieces of ice orbit the sun as well! All these things make up the solar system.



- The solar system has an elliptical (oval) shape.
- The solar system forms part of the Milky Way Galaxy.
- The sun contains about 99.8% of the total mass in the solar system. Because of its tremendous size, the sun exerts an enormous gravitational pull on the objects in the solar system.
- Astronomers estimate that the solar system may have formed about 4.57 billion years ago.
- Many different theories have been put forward to explain how the solar system was formed.
- The eight planets in the solar system are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
- Three of the dwarf (minor) planets in the solar system are Ceres, Pluto and Eris.
- All the planets and dwarf planets receive their light and warmth from the sun.
- The solar system is constantly moving.

# Mathematical solar system artwork



1. Read the table below which gives the diameters and colours of all the major planets and one dwarf planet in the solar system. Write the numbers 1 to 9 in the blank column to show the sizes in order (with 1 being the smallest).

Planet	Diameter (km)	Colour	Order (in size)
Saturn	120 536	yellow	
Venus	12 103	white	
Neptune	49 528	blue	
Mars	6 794	red	
Jupiter	142 984	pale yellow	
Uranus	51 118	green	
Mercury	4880	silver	
Pluto	2340	yellow	
Earth	12 756	blue and green	

2. Paint a sheet of art paper black and allow to dry.
3. In the centre of the art paper, glue a shape made from red, yellow or orange coloured paper to represent the sun. Use any shape but make sure that it covers most of the painted background.
4. Collect coloured paper for each planet or dwarf planet and a variety of shapes to trace or copy—hexagons, rectangles, circles, ovals, triangles etc.
5. Use the order of size in the table to cut out shapes for each planet. Sizes do not need to be exact—but they must clearly show how the planets compare with each other.
6. Arrange and glue all the shapes on top of the sun on the black background. You may overlap some shapes to fit them all on.
7. Type and print a title for your artwork on the computer and attach for display.

