

Activity 23: The Planets

Read the following information about the Planets.

- 1** The **EARTH** is 150 million km from the Sun. It has a surface gravity of 10 N/kg and has 1 moon. Its diameter is almost 12750 km.
- 2** **JUPITER** is 778 million km from the sun. It has a diameter of 143,000 km and a mass which is 318 times that of the earth. It has 16 Moons. Its surface gravity is 26 N/kg. Its year is 12 times as long as the Earth. It was first visited by a spacecraft called PIONEER 10 in 1973.
- 3** **MARS** has a diameter of 6,800 km and is 228 million km from the sun. Its mass is one tenth of that of the Earth. Its surface gravity is 4 N/kg whilst its year is twice that of the Earth. It has 2 moons. It was first visited by MARINER 4 in 1965
- 4** **VENUS** is the planet nearest to the Earth. It was first visited by MARINER 2 in 1962. It is 108 million km from the sun. Its surface gravity is 9 N/kg and has a mass which is 80% of that of the Earth. It has no moons and its year is 0.6 Earth years. Its diameter is 12,000 km.
- 5** **SATURN** has 19 moons as well as rings. Its year is 30 times as long as the Earth. It has a diameter of 120,000 km. It is 1,429 million km from the sun and its mass is 95 times that of the Earth. It has a surface gravity of 11 N/kg. It was first visited by PIONEER 11 in 1979.
- 6** **MERCURY** has a diameter of 4,900 km and a surface gravity of 4 N/kg. It is 58 million km from the sun. It was visited by MARINER 10 IN 1973 AND 1974. It has no moons. Its mass is one eighteenth or 0.055 that of the Earth and a year which is 59 days or one sixth of one earth year. Its diameter is 4,900 km.
- 7** **NEPTUNE** has a mass which is 17 times that of the Earth. It has 2 Moons. It is 50,500 km in diameter and is 4,500 million km from the Sun. Its surface gravity is 12 N/kg and its year is 165 times that of the Earth. It was visited by VOYAGER 2 in 1989.
- 8** **URANUS** - has a surface gravity of 9N/kg. It has 15 Moons plus rings. It was visited by VOYAGER 2 in 1986. It is 2,870 million km from the Sun and has a diameter of 52,400 km. Its year is 84 Earth years. Its mass is 15 times that of the Earth.

Now Using The Information On Previous Page, Fill In The Following Table About The Nine Planets On The Next Page

Planet	Distance from Sun (millions of km)	Diameter (in km)	Mass (Earth=1)	Surface Gravity (N /kg)	Length of Year which (Earth=1)	First Visited by Spacecraft
Mercury						
Venus						
Earth						
Mars						
Jupiter						
Saturn						
Uranus						
Neptune						
Pluto						

Questions On The Planets

- 1 Name the planet which has the MOST Moons.

- 2 Which Planet will be the COLDEST? Explain your answer.

- 3 Which is the SMALLEST of the Planets?

- 4 Which Planet do you think Scientists know LEAST about? Explain your answer.

- 5 Which Planet is CLOSEST to the Earth?

- 6 Which Planet would you weigh MOST on? (Remember, this depends upon Gravity)

- 7 Which Planet has a year which is NEAREST in length to that of the Earth?

- 8 Which of the Planets was first explored by a Spacecraft? Why do you think this Planet was chosen to be the FIRST?

- 9 Can you see any PATTERN between how far the Planets are from the Sun and the length of their year? Why do you think this should be?
