# Solar system and planets essay 

Science, Astronomy

## ASSIGN BUSTER

Our solar system consists of a sun, eight planets, satellites, dwarf planets, asteroids, meteoroids and comets. The eight planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Earlier it had nine planets. However, Pluto, the ninth planet does not meet the latest standards set for the planets. It has now been termed as a dwarf planet thereby increasing the count of the dwarf planets in our solar system to five.

## Long and Short Essays on Solar System and Planets in English

Here are long and short essay on solar system and planets in English, to help you with the topic in your exams or essay writing/debate competitions.

After going through these solar system and planets essay, you will know about the formation of solar system, when the planets were discovered, the dwarf planets, satellites and characteristics of individual planets etc.

All in all, these Solar System and Planets Essays will make you familiar with the universe we are a part of, so much so, that you can confidently take part in debates, talk shows and discussions, on our solar system and its planets. Please go through these essays to select your needed ones:

## Short Essay on Solar System and Planets (200 words)

The universe is massive. It is much bigger than we can imagine and our solar system is just a small part of it. Our solar system houses a big, bright star called the Sun. The Sun is a rich source of electromagnetic energy that it exudes in the form of light and heat. There are eight planets in our solar system namely, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and

Neptune. These planets revolve around the sun in a fixed path referred to as the orbit. Several other smaller objects also move around the sun.

Many planets in our solar system have natural satellites called the moon. While Earth has one moon, Mars has two, Neptune has 14 moons, Uranus has 27 moons, Saturn has 62 moons and Jupiter has as many as 79 moons. Even the dwarf planet Pluto has 5 moons. Mercury and Venus, on the other hand, do not have any moon. Just as the planets move around the Sun in a fixed path, moons orbit around their respective planets.

In addition to the Sun, planets and moons, our solar system consists of several other celestial bodies called the comets, asteroids and meteoroids. While our solar system has only one star, many other solar systems are known to have at least two stars.

## Essay on Solar System and Planets (300 words)

Introduction

Our solar system was formed billions of years ago. It consists of numerous celestial bodies including planets, satellites, asteroids, comets, meteorites and a massive star. Our solar system forms a part of the Milky Way Galaxy. Various celestial bodies in our solar system revolve around the Sun directly or indirectly.

The Formation of the Solar System

It is believed that around 4.6 billion years ago, the gravitational collapse of a giant interstellar molecular cloud gave shape to our solar system. Major part of the collapsing mass collated at the centre, that formed the Sun. The remaining mass flattened into a proto planetary disk and formed the planets, satellites and other objects in the solar system. Planet Jupiter, the biggest planet in our solar system, contains major chunk of the remaining mass.

Our solar system is believed to have evolved substantially since its inception. Many new moons have come into shape from the gases and dust around the planets. Several collisions among the celestial bodies have also occurred and still continue to occur thereby contributing to the evolution of the solar system.

The Discovery of Planets

For thousands of years astronomers believed that Earth was stationary and formed the centre of the universe. It was in the $18^{\text {th }}$ century that the astronomers accepted that Earth orbits around the Sun.

In $2^{\text {nd }}$ millennium BC, Mercury, Venus, Mars, Jupiter and Saturn were identified by ancient Babylonian astronomers. Later, Nicolaus Copernicus also identified them. Uranus was discovered by famous astronomer, Sir William Herschel in 1781. Neptune was discovered by English astronomer and mathematician, John Couch Adams in the year 1846. It was in the year 1930 that the ninth planet, Pluto was discovered. Astronomer Clyde Tombaugh discovered Pluto which is now identified as a dwarf planet.

The study of the universe and heavenly bodies is one of the most fascinating studies. Through continuous research, astronomers have found out several surprising facts about the universe and our solar system. Our solar system is ever evolving and newer facts are being discovered and studied by researchers year after year.

## Essay on Solar System and Planets (400 words)

Introduction

Celestial bodies are objects that naturally occur in the observable universe. These include the stars, natural satellites, planets, asteroids, galaxies, comets and meteorites. Our solar system consists of a Sun, eight planets their moons, five dwarf planets and asteroids among other celestial bodies. Brief information about each of the celestial bodies present in our solar system is given below.

The Sun

The Sun is the only star on our solar system. It is stationary and the other objects in our solar system revolve around it. It is the most massive component of our solar system. Research states that it comprises of 99. 86\% of the entire mass of our solar system.

The Planets

There are eight planets in the solar system. These are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. The planets have been divided
into two groups - Terrestrial Planets and Giant Planets. Planets vary based on their size, geological features, mass, number of satellites and various other factors. No traces of life have been found on any planet apart from Earth.

The Dwarf Planets

There are five dwarf planets in our solar system. These are Pluto, Ceres, Haumea, Eris and Makemake. While Ceres is situated in the asteroid belt others are located in the outer solar system. Dwarf planets are quite like the full size planets. The only difference is that the full size planets have cleared the objects in the area of their orbit whereas the dwarf planets have not.

Astronomers claim that there are six other objects in our solar system that are akin to the dwarf planets. These may be officially recognized as dwarf planets in the times to come.

## The Moons

There are a total of 193 moons in our solar system as per a research conducted in the year 2008. Out of these, 185 moons orbit around the full size planets and 8 moons revolve around the dwarf planets. Moons come in various sizes and shapes. They differ from each other in various ways. Most of the moons are airless. However, there are some that have atmosphere. Some even have hidden oceans. Each planet has different number of moons. Earth has just one moon while Jupiter has the highest number of moons. It has a total of 79 moons. Moons orbit around their respective planets.

Conclusion

In addition to the aforementioned, there are many other celestial bodies in our solar system. These include the Interplanetary Medium, Kuiper Belt, Oort Cloud, asteroids and meteoroids. The Kuiper Belt and Oort Cloud comprise of billions of icy objects. Each celestial body in our solar system is unique with its own set of features.

## Essay on Solar System and Planets (500 words)

Introduction

Our Solar System - A Small Part of the Universe

Our solar system is huge but nothing compared to the size of the universe. The universe is humongous and is believed to encompass numerous solar systems consisting of several planets, stars and other heavenly bodies. The universe is all space and time and it is not possible to calculate its spatial size. The size of the observable universe is estimated to be 93 billion light years.

The Galaxies and Solar Systems

Research shows that just like our solar system there are numerous other solar systems in the universe. The universe consists of billions of galaxies. Each of these galaxies has uncountable stars and many of these stars are said to have solar systems of their own. The size of the stars, the number of
planets, the geological features of the planets, the number and size of the natural satellites vary from solar system to solar system.

Our solar system is a part of the Milky Way Galaxy. The Milky Way Galaxy is huge. It has more than 100 billion stars. More than 2500 stars with planets orbiting around them have been discovered in the Milky Way Galaxy. The study in this field is going on constantly. There are numerous planetary systems that the scientists and astronomers are yet to discover.

## Our Solar System

Our solar system encompasses Sun which is a big ball of fire. Sun is stationary and forms the centre of our solar system. Eight planets namely, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune revolve around the Sun. Each of these planets move in a fixed path in its own set speed. The geological features of each of these planets are different. While Neptune is freezing cold, Venus is scorching hot. Similarly, while Jupiter is massively big, Mercury is comparatively very small in size. The planet is even smaller than some of the moons in our solar system. The atmosphere of each of the planets is different. Planets have been divided into two groups and the features of the planets within each group also vary vastly.

Earth is the only planet in our solar system which is known to have life. It is filled with vast oceans and gases such as oxygen and nitrogen that render life. Mars is said to share some similarities with Earth. Evidences of ice have been found on the planet. The planet is extremely cold and thus life there seems impossible. However, it is believed that the planet was once wet and
warm and life existed here. Astronomers are studying this planet closely and have found many interesting facts about the same. These planets have different numbers of natural satellites.

Apart from this, there are five dwarf planets in our solar system. These are Ceres, Haumea, Makemake, Eris and Pluto. Earlier there were nine planets in our solar system and Pluto was one among them. However, it has now been termed as a dwarf planet.

Conclusion

The Universe is vast and there is a lot to study and discover. Scientists have studied our solar system deeply for centuries and are now moving beyond to study other solar systems and galaxies. A lot of interesting facts about this enchanting universe are likely to surface in the times to come.

## Long Essay on Solar System and Planets (600 words)

Introduction

Our solar system consists of eight planets that revolve around the Sun, which is central to our solar system. These planets have broadly been classified into two categories - inner planets and outer planets. There are four inner planets, Mercury, Venus, Earth and Mars. The inner planets are closer to the Sun and smaller in size as compared to the outer planets. These are also referred to as the Terrestrial planets. Jupiter, Saturn, Uranus and Neptune are termed as the outer planets. These are massive in size and are often referred to as Giant planets.

Here is brief information about each of these planets:

## Mercury

The smallest planet in our solar system, Mercury is also the closest to the Sun. Its geological features consist of lobed ridges and impact craters. Being closest to the Sun, Mercury's temperature sores extremely high during the day time. It can go as high as 450 degree Celsius. Surprisingly, the nights here are freezing cold.

Mercury has a diameter of $4,878 \mathrm{~km}$. It does not have any natural satellite.

## Venus

Venus is said to be the hottest planet of our solar system. It has a toxic atmosphere that traps heat. It is also the brightest planet and is visible to the naked eye. It has a thick silicate layer around an iron core which is similar to that of Earth. Astronomers have seen traces of internal geological activity on this planet.

Venus has a diameter of 12, 104 km. Just like Mars, Venus also does not have any natural satellite.

Earth

Earth is the largest inner planet. Two-third of this planet is covered with water. It is the only planet in our solar system where life is known to exist. Earth's atmosphere, which is rich in nitrogen and oxygen, makes it fit for the
survival of various species of flora and fauna. However, human activities are having negative impact on its atmosphere.

Earth has a diameter of $12,760 \mathrm{~km}$. It has one natural satellite, the moon. Mars

Mars, the fourth planet from Sun, is often referred to as the Red Planet. The iron oxide present on this planet gives it a reddish appeal. The planet is cold and has geological features similar to that of Earth. This is the reason why it has captured the interest of astronomers like no other planet. Traces of frozen ice caps have been found on the planet.

Mars has a diameter of $6,787 \mathrm{~km}$ and two natural satellites.

Jupiter

Jupiter is the largest planet in our solar system. It has a strong magnetic field. It largely consists of helium and hydrogen. It has a Great Red Spot and cloud bands. A giant storm is believed to have raged here for hundreds of years.

Jupiter has a diameter of 139, 822 km and has as many as 79 natural satellites.

Saturn

Saturn is known for its ring system. These rings are made of tiny particles of ice and rock. Its atmosphere is quite like that of Jupiter as it is also largely composed of hydrogen and helium.

Saturn has a diameter of 120, 500 km . It has 62 natural satellites that are mainly composed of ice.

## Uranus

Uranus, the seventh planet from Sun, is the lightest of all the giant, outer planets. It has a blue tint which is because of the presence of Methane in the atmosphere. Its core is colder than the other giant planets. The planet orbits on its side.

Uranus has a diameter of 51, 120 km and 27 natural satellites.

## Neptune

The last planet in our solar system, Neptune is also the coldest of all. It is around the same size as the Uranus but is much more massive and dense. Neptune's atmosphere is composed of helium, hydrogen, methane and ammonia. It experiences extremely strong winds. It is the only planet in our solar system which is found by mathematical prediction.

Neptune has a diameter of 49, 530 km. It has 14 natural satellites.

Conclusion

Scientists and astronomers have been studying our solar system for centuries and the findings are quite interesting. Various planets that form a part of our solar system have their own unique geological features and are different from each other in several ways.

