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Study notes for geography topic - Universe and solar system

Hello dear students, welcome to this amazing journey where we will take you on a trip literally around the universe and our solar system.

Let's discuss some important terminologies.

Origin of the universe:

Universe: Universe is everything that exists, including all the galaxies, solar system, planets, stars, matter, and energy. There are many theories about how the universe formed. Some of the famous theories are the nebular hypothesis and the big bang theory.

Big bang theory, proposed by Edwin Hubble, explains that the universe formed when a tiny ball of matter began to explode. According to this theory, our universe is still expanding.

Nebular hypothesis, proposed by Laplace de marquis, explains that the solar system originated when an intensely hot and rotating nebular gaseous mass cooled. Due to centrifugal force, a ring of mass separated from nebulae and formed planetary bodies.

Galaxy: When millions and billions of stars combine with dust clouds and get isolated in space, it is known as the galaxy. Our own solar system is a part of the Milky way galaxy.

Solar system: Solar system comes next in this classification of the universe. It consists of the sun, eight planets, and other heavenly bodies like comets, asteroids, and meteors.

Sun: Sun is at the centre of our solar system. It is so huge that around 13 lakh earth can fit inside the sun. The Sun is a star and it is the nearest star to the earth.

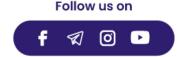
Stars are luminous celestial bodies present in space. They keep on shining by producing energy inside their bodies. e.g. Polaris, Sirius, Alpha Centauri, all these are the names of stars.

Planets:

Our solar system consists of 8 planets. Let us revise some of the basic yet important facts about them.

Mercury: It is the closest planet to the sun. It is also the smallest and lightest planet in our solar system. There is no water and no gases on this planet.

Venus: Venus planet is often named as earth's twin because of the same size and mass as that of earth. This planet is surrounded by a thick veil of clouds; hence it is also the hottest planet of our solar system. It is also known as the morning star and evening star.



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Earth: Planet earth is also known as a blue planet or water planet because a major portion of it is covered with water. It is the only known planet where the existence of life is possible. The availability of gases like oxygen, carbon dioxide, hydrogen makes life possible on this planet. Earth also has a natural satellite which is named the moon. It rotates around the earth on its axis.

Mars: It is the fourth planet from the sun. The availability of iron-rich soil makes it look red hence, it is known as the red planet. Phobos and Deimos are the two natural satellites of Mars.

Jupiter: Jupiter is the largest planet in our solar system. Its average temperature is very low.

Saturn: It is the second-largest planet in our solar system. It is surrounded by bright rings of ice and dust particles that revolve around it. Saturn has the largest number of natural satellites i.e. moons. Titan is the largest satellite of Saturn.

Uranus: This planet appears green because of the availability of methane in its atmosphere. Uranus and Venus are the only planets that rotate from east to west on their axis. It has a large inclination and hence it appears as if it is lying on its axis.

Neptune: It is the 8th and the farthest planet of our solar system. Its characteristics are similar to Uranus hence they are known as twin planets. Planets are classified as terrestrial and jovian planets.

Hoping after reading this blog, you have some clarity about what the universe and solar system are. We will explore our planet earth more so stay connected.



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