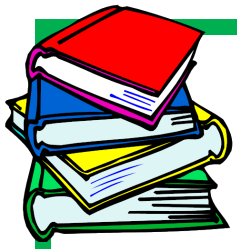

Week Commencing 4.5.20

LO: To Find And Copy

The spacious solar system is thought to have been founded 4.6 billion years ago. Even though astronauts are continually developing extensive research, key information is still being discovered within today's society. Initial information in recent years has been disproven. The Solar System is made up of the Sun and all of the smaller objects that move around it. Apart from the Sun, the largest members of the Solar System are the eight major planets. Nearest the Sun are four fairly small, rocky planets - Mercury, Venus, Earth and Mars.

Earth, Sun and Moon

A well-known explanation is that the Earth, which can be described as a spherical body, can reflect light onto the moon's surface during an eclipse. From Earth, the Sun is visible and seems to moves across the sky in the daytime and appears to disappear at night, for orbiting occurs within the solar system. This is because the Earth is spinning towards the east, yet the Earth spins about its axis (an imaginary line that runs through the middle of the Earth between the North and South poles). This means that to us here on the spinning Earth, the Sun appears to rise in the east in the morning, and climb higher and higher in the sky towards midday. In the afternoon, the Sun then seems to move lower and lower in the sky before setting in the west. Earth is one of the 8 planets (Pluto is no longer regarded as a planet according to scientific discovery) which orbits the Sun, yet many people in today's society still believe the Earth doesn't move. It has a circumference of 40,000 km which may sound big - until you realise that the Sun's circumference is 109 times larger! The Moon is not a planet - it is a moon and it orbits the Earth. Some planets have many moons, Jupiter for example has at least 67 in orbit. The Sun's temperature is approximately 5,500 degrees Celsius on its surface. If you think that's hot, consider the Sun's central, blazing core, which is about 13,600,000 degrees Celsius! Luckily for us, the Earth is much, much cooler!

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Astronauts

Before they can fly in space, astronauts have to undergo hundreds of hours of a credible training programme, for they are ambitious individuals who are passionate about their profession. This is split into three main sections. First, newcomers, who want to qualify as astronauts, have to pass a thorough course of basic training. The candidates learn about space technology, science, basic medical skills, and how the International Space Station (ISS) works. They also become familiar with scuba diving. After this first part, they go on to another year of incredible advanced training; intense training can ensure weak candidates are eliminated before missions proceed. They learn in more detail about the various parts of the ISS, the experiments, transport vehicles, and the involvement of ground control. To survive in such a hostile environment, there are a variety of essential conditions that must be adhered to; astronauts must have air to breath, water to drink and a stable environment. They will then have the opportunity to be assigned to a mission.

Over several years, the astronauts have opportunities to network within their professional field, as they visit training centres in the USA, Russia, Japan, Canada and Europe. Their extreme training regime may involve learning a foreign language – such as Russian – as well as getting to know about the scientific experiments and special activities on the mission.

V I P ERS

1. How are the 4 planets nearest Earth described in the opening?

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2 Which word tells us the shape of the Earth?

_____

3. What is the name of the imaginary line that runs through the poles of the Earth?

_____

4. According to the text, How many moons does Jupiter have?

_____

5. What word is used to describe the meeting of other Professional astronauts?

_____

6. What type of training causes weak astronauts to be eliminated?

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