



## Year 5: Earth and Space Knowledge Organiser

| Key People/Scientists |   |  |
|-----------------------|---|--|
|                       | Claudius Ptolemy (367BC-282BC) He believed planet Earth was the centre of the universe and all of the other planets, stars, and the Sun revolved around it. |  |
|                       | Copernicus (1473-1543) He proposed that the sun was stationary in the centre of the universe and the earth revolved around it.                              |  |
|                       | Stephen Hawking (1942-2018) A scientist known for his work with black holes and relativity. He Wrote 'A Brief History of Time.'                             |  |

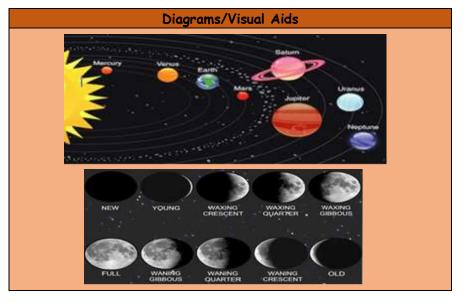
|                   | Day and night occurs because the Earth spins      |
|-------------------|---|
| How does day and  | (or rotates) on an imaginary line called its axis |
| night happen?     | and different parts of the planet are facing      |
|                   | towards the Sun or away from it. It takes 24      |
|                   | hours for the world to turn all the way around,   |
|                   | and we call this a day.                           |
| What is the       | The Moon moves around the Earth in a              |
| movement of the   | movement called revolution. This is very similar  |
| moon relative to  | to Earth's revolution around the Sun. The path    |
| the earth?        | the Moon takes to go all the way around the       |
|                   | Earth is called its orbit. It takes about 27 days |
|                   | for the Moon to revolve around the Earth once.    |
| How long does it  | Earth takes a year (365 days) to make one         |
| take for Earth to | complete orbit of the sun, spinning on its axis   |
| orbit the sun?    | as it goes.                                       |
|                   |   |
|                   |   |

**Key Questions** 

## Misconceptions/Key facts

<u>Misconception:</u> Phases of the moon are caused by the Earth's shadow covering the Moon.

<u>Fact:</u> Phases of the moon are caused by the regular movement of the Moon around the Earth. Only the illuminated parts of the Moon which are facing the Earth can be seen from Earth.



| Key Vocabulary |  |  |
|----------------|--|--|
| astronomy      | The scientific study of the stars, planets, and other natural objects in space.                                |  |
| comet          | A bright object with a long tail that travels around the sun.  |  |
| dwarf planet   | A celestial body resembling a small planet but doesn't have the features of a planet e.g. Pluto.               |  |
| geocentric     | The belief that the Earth is the centre of the solar system.   |  |
| heliocentric   | The belief that the Sun is the centre of the solar system.   |  |
| meteorite      | A large piece of rock or metal from space that has landed on Earth.  |  |
| orbit          | The curved path in space that is followed by an object going round a planet, moon, or star.                    |  |
| rotate         | When something rotates or when you rotate it, it turns with a circular movement.                               |  |
| satellite      | A natural or artificial object that orbits a planet.   |  |
| solar system   | The Solar System is made up of the Sun and all of the smaller objects including the eight that move around it. |  |