Shilbottle Primary
Fun, Respect & Friendship

Science - Year 5 - autumn - space

Vocabulary	Meaning
asteroid	a rock that orbits the Sun in a belt between Mars and Jupiter.
axis	an imaginary line through the middle of something
comet	a bright object with a long tail that travels around the Sun
galaxy	an extremely large group of stars and planets. Our galaxy is called the Milky Way.
gravity	the force which causes things to drop to the ground
leap year	a year which has 366 days. The extra day is the 29th February. There is a leap year every four years
meteorite	a rock from outer space that has landed on Earth
orbit	the curved path in space that is followed by an object going round and round a planet, moon, or star
planet	a large, round object in space that moves around a star
shadow	a dark shape on a surface that is made when something stands between a light and the surface

The Sun, Earth and Moon are approximately **spherical.**
The Earth **orbits** the Sun.
The Moon **orbits** Earth.

Here are the planets in our solar system. Notice the moon near to planet Earth. When the Moon passes between the Sun and Earth, the **shadow** cast by the Moon falls on the Earth's surface and we would no longer be able to see the Sun. This is called a **solar eclipse**.

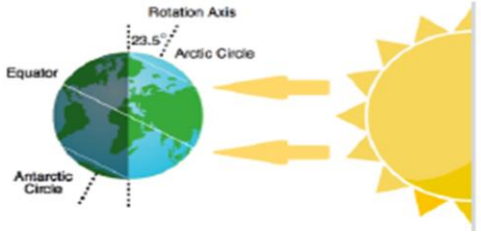
Skills

- Compare the times of day on different parts of planet earth
- Discuss differences between the seasons
- Explain differences between the planets in our solar system

Knowledge

What causes day and night?

- The Earth **rotates** on its **axis** anti-clockwise and makes a complete **rotation** over 24 hours (a day).
- This makes it appear as the Sun moves through the sky but the Earth's **rotation** causes day and night.
- Different parts of the Earth experience daylight at different times - this means that it is morning, afternoon and night in different places. This is also the reason why we have **time zones**.
- Because of the Earth's tilt, the poles experience 24 hours of sunlight in the summer, and very few hours of sunlight in the winter.
- As the Earth **rotates, shadows** that are formed change in size and orientation.



What I should be able to do and know now.

Knowledge

•Animals can be grouped into vertebrates (and then further into fish, reptiles, amphibians, birds and mammals) and invertebrates

•Some examples of life cycles (including those of plants)

•The processes of dispersal, fertilisation and germination

•Reproduction is one of the seven life processes.

•Parts of a plant, their features and what their functions are.

Skills

I can classify animals into vertebrates and invertebrates

I know one life cycle of a living thing, and create a diagram to support my knowledge.

I can describe the process of reproduction for plants

I can label the parts of a plant.

Growth Mindset Strategies

Understand the difference between a

FIXED mindset and a GROWTH mindset.

Be Curious; Be courageous.

Challenge yourself.

Give everything your best effort and persevere.

Practice; Practice; Practice.

What I will be learning

To describe the movements of the sun, Earth and moon.

To explore how the rotation of the Earth creates night and day.

To learn how the earth`s tilts creates seasons.

To learn about the phases of the moon

To discover the theories about how the solar system have changed.

To investigate the planets in the solar system.

What I will know and be able to do at the end of the topic.

Knowledge

What causes night and day?

How long does it take for the Earth to orbit the sun?

The seasons are caused by …..

The solar system includes …..

What do the Sun, Earth and moon all have in common?

Time zones are caused by …..

The Sun`s _____ keeps the planets orbiting it.

A solar eclipse is when …..

Jupiter**, Saturn, Uranus and Neptune are known as** …..

Skills

- Identify the properties of a sphere.
- Discuss the main source of heat and light within our solar system.
- Identify Earth on a solar system diagram.