



**Science Topic:** Earth and Space

**Year: 5 Term:** Autumn 2

## Key Knowledge/Content:

- Air resistance and water resistance are forces against motion caused by objects having to move air and water out of their way.
- Friction is a force against motion caused by two surfaces rubbing against each other.
- Some objects require large forces to make them move; gears, pulley and levers can reduce the force needed to make things move

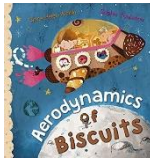
## Scientist Focus:

### **Galileo Galilei (Astronomist)**

Theorised that the planets move round the Sun.

## Book Focus:

Curiosity, the Story of the Mars Rover- Markus Motem



## Links to:

### Prior learning:

To understand how gravity works.

### Future learning:

To compare and classify different properties of materials.

## Key vocabulary with definition:

### Prior vocabulary:

- Gravity- The force which pulls everything towards the centre of the Earth.

### New vocabulary:

- Earth- Our planet.
- Sun- The star in the centre of our Solar System.
- Moon- A rocky object that orbits our Earth.
- Orbits- Moves around something.
- Rotation- The time it takes to move around something.
- Phases of the moon- The different shapes the moon takes.
- Solar System- Our galaxy, which revolves around the Sun.
- Day- When the Sun is in the sky.
- Night- When the Sun is not visible.
- Axis- What the Earth spins on.
- Spherical- A sphere shape.
- The phases of the moon- waning, waxing, crescent, gibbous
- The names of the planets in our Solar System: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune

## By the end of this unit

**All children can:** name the planets in the Solar System and **describe** what causes day and night, referring to the position of the Earth, moon and Sun.

**Most children can:** compare the lengths of time planets orbit the Sun and **make observations** about the different phases of the moon.

**Some children can:** understand how our theories of the Solar System have changed over time and **investigate** the impact of a meteorite.

## Background understanding for teachers and parents:

This unit will focus on looking at Earth and Space. Children will explore how day and night happens, looking at the position of the Earth and Sun. They will also look at the planets that make up our Solar System and how they orbit the Sun.

## Curriculum Driver (one):

Knowledge of the World

### Evidence outcome:

Understand how the position of the Earth and Sun creates day and night, which may be different at different points around the world.