



# St. Francis Xavier's RC Primary School

## Science Unit Guidance and Formative Assessment

<b>Year Group:</b>	5 Autumn 1	<b>Subject:</b>	Science
<b>Unit:</b>	Earth and Space	<b>Prerequisite Learning and Curriculum Links</b>	<p><b>EYFS ELG The Natural World</b> Explore the natural world around them, making observations; know some similarities and differences between the natural world around them and contrasting environments; understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p><b>Year 1:</b> Seasonal change</p> <p><b>Year 3 Light:</b> safety when looking at the Sun</p> <p><b>Curriculum Links in Year 5</b></p> <p><b>Literacy:</b> Write Stuff Unit based on 'Cosmic'</p> <p><b>Computing:</b> Presenting data using Excel</p> <p><b>Maths:</b> Comparing durations of time, creating graphs from a data set</p>

### ROCKS (Remembering Our Curriculum Knowledge and Skills)

To understand that the Earth and Moon are spherical bodies which orbit the Sun in a heliocentric universe

Recall the names of the eight planets in our solar system- Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune

Explain how day and night occurs in relation to the Earth's rotations and the apparent movement of the sun across the sky

Understand that different planets have varying year and day lengths and explain the reasons for this

Describe the movement of the Moon relative to the Earth

#### Progressive Journey:

Research previous theories from astronomers about the shape of the Earth and movement of the Sun

Justify or prove how we know the Earth is spherical using research

Name the planets and collect data around each planet

Graph the length of a day or year on each planet using computers

Clarify the difference between 'orbit' and 'rotation'

Explore the phases of the Moon

Research life on the ISS (International Space Station)

#### Skills:

Record and present data using graphs and tables

Present information using formal presentations and debates

Identifying scientific evidence that has been used to support or refute ideas or arguments

Classify planets based on different criteria and properties, such as the Gas Giants

#### Key Vocabulary

Heliocentric, geocentric, spherical, orbit, rotate, galaxy, Ptolemy, Alhazen, Copernicus rotate, astronomers, constellation

Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, Dwarf Planet, moons, rings, atmosphere, gas

Waxing, waning, full Moon, eclipse, solar system