Year 5 2022/2023: What makes planet Earth unique?

L earning Journey
E ngaging
A uthentic
R igorous
N ova Curriculum

Year 5	Terms 5 & 6	Big Idea: Exploration & Mystery Survival and Prevention

Overview:

This enquiry enables learners to consider their opinions about what makes our planet unique in comparison to other planets and how we describe the movement of the Earth, and other planets, relative to the Sun in the solar system. We examine the lifecycles of animals and humans and describe the life process of reproduction in some plants and animals. In Term 6, we describe the parts of a river, learn about the water cycle and explain key aspects of mountains using a fantastic range of picture books such as The Rhythm of the Rain & River Story.

Class texts have been chosen to enrich children's learning, encouraging children to make links with their reading and wider curriculum learning. For example, Cosmic by Frank Cottrell Boyce tells the story of children who accidentally go up into space. Being artists, children will experiment with a variety of media to create solar systems and develop sketching and still-life skills using natural forms as inspiration.

As scientists children will develop our knowledge and understanding of Earth and space and living things, including humans.

Learning links (previous learning):	**Celebrating diversity and inspirational People:**
Prior knowledge and learning to make links with and build upon: There are eight planets that orbit around the Sun. In order, going from the closest planet to the Sun, to the one that is farthest away, they are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All of the planets and the Sun are round, like balls. There are 24 hours in a day. There are 365 days in a year. There are different water features found on Earth such as lakes, oceans, seas and rivers.	Mae C. Jemison Mary Jackson, mathematician Katherine Johnson and NASA supervisor Dorothy Vaughan: book Hidden Figures David Bowie and Elton John (space inspired musical artists)
Launch and Landings: **Create solar system inspired marbled artworks** **Create min-biogs of inspirational and signigicant figures in science and culture** **Make a moving Earth in space model using different mechanisms** **Make physical representations of the water cycle**	**Experiential learning opportunities:** **Visit from Planetarium (science)**

NC Objectives – Skills, knowledge and vocabulary taught through Line of Enquiry	
Art – Drawing	**DT – Materials**
As Artists we will: explore different drawing techniques to plan and create a still life drawing using chosen media Can I develop my drawings from observation? Can I draw using perspective, mathematical processes, design, detail and line? Can I extend my ability to represent 3D forms in my artwork using a range of materials? Can I extend and develop a greater understanding of applying expression when using line. Can I develop an increasing sophistication when using tone to describe objects when drawing? Can I analyse artists' use of tone? Vocabulary: colour, line, tone, form, shape, pattern, texture, observation	**As Designers and Engineers we will:** **Explore mechanisms to make a moving representation of the Earth in space.** **•Cut materials with precision.** **•Cut accurately and safely to a marked line.** **•Join/combine materials with temporary, fixed or moving joints** **•Ensure products have a high quality finish, using art skills where appropriate.** **•Justify their decisions about materials and methods of construction.** **•Make suggestions on how their design/product could be improved.** **Vocabulary:** mechanical, structure, product, gear, pulley, lever, gears, cams, research, prototype, opinion, quality, justify, suggestion, improvement, analyse, innovate
Geography	**Science (taught through PPA):**
As Geographers we will: •Identify key topographical features of places in the UK (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time. •Describe the parts of a river •Describe the water cycle. •Explain key aspects of mountains •Explain how the physical features of two contrasting regions influence how and where people live (Europe and UK) **Vocabulary:** topographical feature, coast, river, island, delta, mountain, hill, valley, plateau, plain, desert, water cycle, evaporation, transpiration, condensation, precipitation, run-off, river, tidal river, estuary, stream, lake, tributary, current, bank, delta, mouth, source, fresh water, saltwater, mountain, mountain range, tectonic plates, force, contour, altitude, elevation, erosion, summit, peak, ascent, descent, vegetation, biome	**As scientists we will:** describe the movement of the Earth, and other planets, relative to the Sun in the solar system •describe the movement of the Moon relative to the Earth •describe the Sun, Earth and Moon as approximately spherical bodies •use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky. •explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object •describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird •describe the life process of reproduction in some plants and animals. •describe the changes as humans develop to old age. Vocabulary: Gravity, planet, moon, star, day, night, rotate, orbit, season, phases of the moon

Opportunities for core subject learning across the curriculum	
As readers and writers we will:	**As mathematicians we will develop understanding of:**
Class texts: Cosmic by Frank Cottrell Boyce plus a range of non-fiction texts linked to the wider curriculum: Hidden Figures, A River, Rhythm of the Rain and more. **As writers:** Children will write narratives: a time slip and an adventure story and non-fiction: persuasive text and an explanation. **Cross curricular writing in LOE books:** Geography - Children will write the journey of a drop of water Science – mini-biographies of inspirational people	• **Decimals** • **Geometry** • **Measures** • **Shape** **Vocabulary: decimals, position, grid, translation, coordinates, lines of symmetry, symmetric, reflection, volume, estimate, capacity, degrees, angles, acute, obtuse, reflex, polygon, negative numbers, metric, imperial and cubic centimetres.**

Discrete subject teaching - Skills, knowledge and vocabulary taught discretely	
Physical Education	**Music**
As fit and healthy citizens we will develop skills in: **Rounders** **OAA** **Tennis** **Athletics** **Vocabulary: Base, rounders, bat, fielding, sprint, pace, balance, throw**	**As Musicians we will study:** Singing (Pitch) Ukelele sessions Vocabulary: pitch, intonation, melody, structure, Rondo form, texture and rhythm.
Computing	**PSHE**
In computing we will develop programming skills through the Teach Computing Scheme: **Selection in Physical Computing (T5)** **Selection in Quizzes (T6)**	**As fit and healthy citizens we will develop our knowledge through** SCARF scheme: RSE – Growing and Changing PSHE – Being my best Volume: penis, vagina, testicles, anus, cervix, cliteris, deodourant, discahrge, emotions, foreskin, growth, genitals, hair, hygiene, labia (outer lips), menstruation, mentruation pads, period, period pants, puberty, pubic hair, scrotum, sweat, tampon and wet dreams.

Vocabulary: Explore procedures, Refine procedures, Variable, Hardware + software control, Change inputs, Different outputs, Articulate solutions, Commands, Predicting outputs, Plan, program, test & review a program, Program writing, Control mimics + devices, Sensors, Measure input, Create variables, Link errors	
RE	**FRENCH**
As philosophers we will explore the question: **Why is Jesus so inspiring to some people?**	**As linguists we will develop our French vocabulary linked to** • **The Olympics** • **Clothes**