Year: 5 Term: Spring 1 Topic: Earth & Beyond

Planned Curriculum Content

Literacy - *See the Long and Medium Term Planning for specific planned content.*
Texts: Cosmic, The Planets (clip)
Writing Styles and Genres: Narrative; Setting description; Letter writing; Diary entry; Newspaper report

Maths
White Rose Unit: Multiplication and Division B
White Rose Unit: Fractions B

See the Long Term Plan for detailed small steps which set out the specific planned content.

Subject: Design and Technology
The children will learn to:

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages.
- select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately.
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Subject: Science
The children will learn to:

•Describe the movement of the Earth, and other planets, relative to the Sun in the solar system; discussing and comparing the Geocentric and Heliocentric models.
•Describe the movement of the Moon relative to the Earth.
• Children will explore scientific ideas and evidence over time to understand the current understanding that the Sun, Earth and Moon are approximately spherical bodies.
•Use a torch and spherical object to demonstrate the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
*Compare and contrast the 8 planets, creating a fact-file of key features.

Specific Planned Content Across The Curriculum

In each of these subjects we follow schemes of work. Refer to the Long Term Plans for detailed information on the specific planned content:

P.E. – Spiral 15-20 & swimming
Music – **Kapow** – Unit : Festival of Colour
RE - Leeds Agreed Syllabus – Unit: Should we forgive others?
PSHE - You, Me and PSHE - Unit: Mental Health - Dealing with Feelings
Computing – Purple Mash – Unit: 5.4 Databases -5.5 Game Creator
Geography – **Plan Bee –** Unit - Extreme Earth
French – **Twinkl** - All About Ourselves

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Curriculum Drivers

Core Values	Knowledge and Long Term Learning	The Greats	Diversity and Community
Our school values are **respect, determination** & **resilience,** and **inclusion**	Our knowledge organisers will be focused on **Earth and Space** and **Extreme Earth.** They will be used to help the children learn the essential knowledge and vocabulary that they need for the subject. Revision slides and quizzes will also be used.	We will learn about the great careers and achievements of Neil Armstrong and Helen Sharman. We will read the book Cosmic by Frank Cottrell Boyce. We are watching The Planets Clip by Andy Martin to inspire our writing.	In R.E we will explore the significance of Easter, Ascension and Pentecost for Christians in our community.

Assessment of Threshold Concepts

Science: Threshold Concepts – Earth & Space

Scientific Concepts:	Working Scientifically:
•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.	•Scientific diagrams and labels, classification keys, tables, bar and line graphs, and models. •Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions. •Present findings in written form, displays and other presentations. •Use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.

Computing: Threshold Concepts – Databases -Game Creator

Year: 5 Term: Spring 1 Topic: Earth & Beyond

Computer Science:	Information Technology:	Digital Literacy:
• I can test and debug my programs as I work.	• I can make appropriate improvements to digital work I have created. • I can comment on how successful a digital solution is that I have created. • I can work collaboratively with others creating solutions to problems using appropriate software such as 2Code	• I know how to not let my mental wellbeing or others be affected by use of online technologies and services. • I always relate appropriate online behaviour to my right to have personal privacy • I can demonstrate the safe and respectful use of different online technologies and online services

Design and Technology: Threshold Concepts – Mechanics: CAMS - Space

Design, Make, Evaluate and Improve	**Take Inspiration from Designs Throughout History**	**Master Practical Skills**
• Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). • Make products through stages of prototypes, making continual refinements. • Ensure products have a highquality finish • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.	• Understand how key events and individuals in design and technology have helped shape the world • Create innovative designs that improve upon existing products. • Evaluate the design of products so as to suggest improvements to the user experience.	Materials: • Cut materials with precision • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper) Mechanics: • Convert rotary motion to linear using cams.

		• Use innovative combinations of mechanics in product designs

Geography: Threshold Concepts - Extreme Earth

Investigate Places	Investigate Patterns	Communicate Geographically
To find out about the Earth's climate and areas of extreme temperatures. To find out about the water cycle and the distribution of water across the world. To find out about earthquakes and what causes them. To find out about tsunamis and how they are caused. To find out what volcanoes are and how they are formed Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night) Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied	To find out about extreme weather conditions across the world. To find out about the Earth's climate and areas of extreme temperatures.	Describe and understand key aspects of physical geography, and the linked vocabulary, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle

Languages (French): Threshold Concepts – All About Ourselves

Listening and speaking	Reading and writing	Stories, songs, poems and rhymes	Grammar
To listen attentively to spoken language and show understanding by joining in and responding in the context of body parts.	To describe people, places, things and actions orally and in writing in the context of activities.		To understand basic grammar appropriate to the language being studied in the context of

To speak in sentences, using familiar vocabulary, phrases and basic language structures in the context of describing yourself			-describing what someone is wearing (use the verb 'porter') -talking about ailments To understand basic grammar; key features and patterns of language; how to apply these in the context of talking about feelings (French adjectives)

Music: Threshold Concepts – Composition to represent the festival of colour (Holi Festival theme)

Singing	Playing Instruments	Improvising/Exploring	Composing	Listening	Appraising
*To understand that varying effects can be created using only your voice, for example by changing the pitch, dynamic or tempo of the sound made. *To understand that human voices have their own individual timbre, and that this can be adapted by using the voice in different ways.	*Working as a group to perform a piece of music, adjusting dynamics and pitch according to a graphic score, keeping in time with others and communicating with the group. *To know that the duration of a note or phrase in music can be shown using a repeated symbol or the size of a symbol on a graphic score.	*Selecting, discussing and refining musical choices both alone and with others, using musical vocabulary with confidence.	*Representing the features of a piece of music using graphic notation, and colours, justifying their choices with reference to musical vocabulary. *Composing a detailed piece of music from a given stimulus with voices, bodies and instruments (e.g. remix, colours, stories, drama). *Combining rhythmic patterns (ostinato) into a multi-layered composition using all the interrelated dimensions of music to add musical interest. *To know that a vocal composition is a piece of		Comparing, discussing and evaluating music using detailed musical vocabulary Developing confidence in using detailed musical vocabulary (related to the interrelated dimensions of music) to discuss and evaluate their own and others' work. Using musical vocabulary to offer constructive and precise feedback on others' performances.

			music created only using voices.		

PE: Threshold Concepts (Highlight focus areas for Half Term)

KS1

Agility	Balance	Co-ordination
Body Awareness	Balancing Equipment	Combination of Skills
Dodging and Evading	Dynamic Balance	Differentiating Force
Flexibility and Movement	Generating Force Through Transfer of Weight	Organising Limbs
Reaction	Points of Contact	Receiving
Rotation	Static Balance	Sending
Travelling	Understanding Base	Timing

KS2 - Swimming & Padel coaching

Cognitive	Manipulation	Physical
Anticipation	Accuracy	Agility
Evaluation	Dribbling	Control
Peer Mentoring	Fielding and Catching	Physical Processing
Tactical Variation	Passing	Power
Team Work	Shooting	Speed
Understanding Rules	Striking	Strength

PHSE: Threshold Concepts

Theme: Physical Health and Wellbeing:

Pupils learn about a wide range of emotions and feelings and how these are experienced in the body:

- are able to name and describe a wide range and intensity of emotions and feelings
- understand how the same feeling can be expressed differently
- recognise how emotions can be expressed appropriately in different situations

Pupils learn about times of change and how this can make people feel:

- identify situations when someone may feel conflicting emotions due to change

• can identify ways of positively coping with times of change
• recognise that change will affect everyone at some time in their life

Pupils learn about the feelings associated with loss, grief and bereavement:

• recognise that at times of loss, there is a period of grief that people go through
• understand there are a range of feelings that accompany bereavement and know that these are necessary and important
• know some ways of expressing feelings related to grief

RE: Threshold Concepts: Should we forgive others?

Pupils working *towards* the age-related expectations for their year group will be able to:	Pupils working *at* the age-related expectations (ARE) for this year group will be able to:	Pupils who are *deepening and widening* their knowledge and understanding will be able to:
• Describe ways in which people show that they are sorry. • Describe the teaching and example of Jesus about forgiving people • Make links between the teachings they study and their own views and behaviour	• Give a considered response to why it is hard to 'make up' or apologise in a conflict. • Identify and explain their own ideas about Jesus' teaching regarding forgiveness and reconciliation. • Discuss and give examples of how some modern individuals have faced the challenge of forgiveness.	• Explain some ways in which they have faced the challenges of reconciliation or forgiveness in the light of religious teachings • Explore and express their views about the consequences of forgiveness for themselves • Give a considered response to the examples of reconciliation studied suggesting how these examples have followed Christian teaching.