Year group:4 Term: Spring 1

Focus Subject: Science

**Key Vocabulary:** Solids, Liquids, Gases, Particles, State of Matter, Heat, Substance, Cool, Changes of State, Melting Points, Boiling Points, Substances, Expands, Contracts, Temperature, non-Newtonian Fluid, Enquiry, Comparative, Fair test, Classifying, Prediction, Hypothesis, Accurate, Thermometer, Data, Support, Refute.

#### **Relationships and Health Education:**

In Unit 2 – Me, My Body, My Health, children meet animated character, AJ, who will reappear throughout this scheme of work. In this Unit, children will learn to celebrate similarities and differences, and to appreciate and look after their bodies as gifts from God. Teaching also covers specific physical and emotional changes during puberty, and that growing from boys and girls to men and women is part of God's loving plan for creation.

#### RE: as theologians, we will:

**Local Church - Community:** 

Area of Study 1: Knowing and loving God, the Scriptures, the Trinity, Jesus Christ, Son of God

Area of Study 2: What is the Church? One and holy, Catholic, Apostolic, Mission

Area of Study 3: Liturgy, Sacraments, Holy Orders, prayer

Area of Study 4: The dignity of the human person,

the human community, love of God, love of neighbour

**Eucharist - Relating:** 

Area of Study 1: Knowing and loving God, the Scriptures, the Trinity, Jesus Christ, Son of God

Area of Study 2: What is the Church? One and holy, Catholic, Mission

Area of Study 3: Liturgy, Sacraments, prayer

Area of Study 4: The dignity of the human person, the human community, love of God, love of neighbour

# BIG Question: How can science support a sustainable world?





Protect Love Serve

#### **Practise at Home:**

Spellings, Times Table Rock Stars, IXL and reading

#### As Musicians, we will:

#### Developing Pulse & Groove Through Improvisation

In this unit, the Musical Spotlight is 'Developing Pulse and Groove Through Improvisation'. Improvisation is a great way to create music that belongs to YOU, and to express your feelings and ideas, often without even having to think too much about it. In this unit, you will improvise in time with the music (keep the pulse) and feel the music by getting into the groove. It helps to move to the music when getting into the groove.

#### Science: As scientists, we will:

- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

# Cultural Capital/Trips/Local Area and Opportunities for Outdoor Learnina:

Discovery 42

DT: As designers, we will: Understand how well products have been designed. Why materials have been chosen. What methods of construction have been used. How well products work. How well products meet user needs and wants. Make strong, stiff shell structures. Measure, mark out, cut and shape materials and components with some accuracy. Assemble, join and combine materials and components with some accuracy. Learn about PEB 9 – who design and make products. Where and when products were designed and made. Develop their own design criteria and use these to inform their idea. Generate realistic ideas, focusing on the need so the user. Model their ideas using prototypes. Use annotated sketches to develop and communicate their ideas. Work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment. Describe the purpose of their products. How to use learning from mathematics to help design and make products that work. Refer to their design criteria as they design and make. Consider the views of others, including intended users, to improve their work. Order the main stages of making, select tools and equipment suitable for the task, select materials and components suitable for the task and the use the correct technical vocabulary for the projects they are undertaking. Use annotated sketches and cross-sectional drawings to develop and communicate their ideas. Measure, mark out, cut and shape materials and components with some accuracy. Assemble, join and combine materials and components with some accuracy. Apply a range of finishing techniques, including those from art and design, with some accuracy. Use PEA5's design criteria to evaluate their completed products. Use PEA8 to identify the strengths and areas for development in their ideas and products.

#### Maths: As mathematicians, we will:

#### Unit 5 - Multiplication and division (I) - continued from Autumn term

This unit is important because it focuses on learning multiplication and division facts – a core part of maths at Key Stage 2. Children explore multiplication and division, looking first at multiplying and dividing by multiples of 10 and 100, and then at multiplying and dividing by 0 and 1, the understanding of which is key to children's mastery of this unit. This unit encourages children to use visual representations to tackle multiplication and division questions, and to understand concepts such as grouping and sharing. Mastering this unit will certainly have a positive impact on other areas of mathematics such as fractions, decimals and percentages

#### Unit 6 - Multiplication and division (2)

This unit builds on exploring written and mental calculation strategies for multiplying and dividing. Children explore in depth the distributive and associative properties of multiplication. The learning progresses from Year 3, where children used expanded methods for 2-digit × I-digit numbers, to Year 4 where they are using the compressed single line (standard) formal multiplication. Children learn to solve more complex problems building on n objects related to m objects, fi nd all solutions and notice how to use multiplication to solve questions. Children use partitioning to divide 2- and 3-digit numbers by a I-digit number. They recap on the concept of a remainder a er division, and move on to predicting whether a number will have a division and what the number could be if the remainder is given. Children then move on to solve simple 2-step problems that involve all of the four operations.

#### English: As readers and writers, we will:

T4W: Hansel and Gretel (Defeating the monster story) – Fiction Non-Fiction: Advert for the Magic Cottage (Persuasive writing). Invention/Innovation: Advert for house for sale.

GPS National Curriculum

- The grammatical difference between plural and possessive –s
- Appropriate choice of pronoun or noun across sentences to aid cohesion and avoid repetition

#### Spelling

- Words ending in '- sion'
- Words ending in '- ous'
- Words ending in '- ous' where the ge from the root word remains
- Words where 'i' makes an /ee/ sound
- Words ending in '- ious' and 'eous'
- Challenge Words

### MFL: As Modern Foreign Linguists, we will:

Saying what I and others do

Phonics: the SSC (sound-symbol correspondences) taught this term are: [é/et/ez/er] [è/ê] [oi] [(a)in] [ai]

Vocabulary: verbs and nouns to describe a range of activities, numbers 1-12, à meaning at, in, to

Grammar: -ER present tense (singular), singular definite articles (le, la), regular plural marking on nouns (-s), plural indefinite article (des), il y a, intonation question (including with combien)

# PE: As athletes, we will:

Dance – Shake, rock and roll Develop movement vocabulary and motifs based on Rocks, Soils, Volcanoes and Rock and Roll. perform dances using a range of movement patterns

Netball – High 5 netball - play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending

# Computing: As programmers, we will:

Programming A – Repetition in shapes

Create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language. This unit is the first of the two programming units in Year 4, and looks at repetition and loops within programming

## Art: As artists, we will:

The Art of Sculpture:

Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.

Pupils should be taught:

- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
- to know about great artists, architects and designers in history.