Our lead State of Being is: Scientist

Our Enquiry Question in Term 3 is: How can Science help the Vulnerable?

Our supporting State of Being is: Engineer

We are SCIENTISTS

Properties and changes of materials:

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets; 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; give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic; 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.

Working Scientifically:

- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs- using test results to make predictions to set up further comparative and fair tests

We are ENGINEERS

Evaluation:

investigate and analyse a range of existing products;

- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work;
- understand how key events and individuals in design and technology have helped shape the world.

We are MATHEMATICIANS

Core Subjects Coverage:

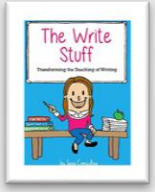
We are AUTHOR-WRITERS

Pupils will cover the same areas of maths but at their own year group level. All pupils have opportunities everyday to practice their maths at fluency level, answer reasoning questions, complete problem solving questions that ask them to apply their fluency and extend their learning to solve extra maths challenges.

Year 4, 5 & 6 – Multiplication and Division using formal written methods; Fractions- multiplying and dividing; finding fractions of whole numbers. Decimals.

Writing persuasively a letter to invite an author into school.
Narrative writing based on the novel 'The Explorer' by Katherine Rundell.

- Grammar and punctuation - modal verbs; passive voice; semicolons in lists; coordinating conjunctions; figurative language devices; parts of a sentence
- Spelling and handwriting: homophones, prefixes and suffixes, plurals



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Key Vocabulary

substance soluble/solubility
chemistry
reversible/irreversible solution
transparent
solidify
thermal
conductor/insulator
evaluation
dissolve

Milestones in Learning

IKH Milestone
Learners can use knowledge of solids, liquids and gases to decide how mixtures might be separated. They can also analyse a range of existing products and give reasons for the particular uses of everyday materials.

IKO Milestone
Learners can compare and group together everyday materials on the basis of their properties.
They know that some materials will dissolve in liquid to form a solution.

PKH Milestone
Learners understand insulation and irreversible changes using scientific vocabulary.
They understand how to record complex results.

PKO Milestone
Learners can apply scientific knowledge to the context of natural and new-to-the-world materials.