Year: 6

Curriculum Information

Number – number and place value

- read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
- use negative numbers in context, and calculate intervals across zero
- solve number problems and practical problems that involve all of the above.

Number - addition, subtraction, multiplication and division

- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- identify common factors, common multiples and prime numbers
- use their knowledge of the order of operations to carry out calculations involving the four operations
- solve problems involving addition, subtraction, multiplication and division
- use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Number - fractions (including decimals and percentages)

- use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- compare and order fractions, including fractions >1
- add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = 1/8$]
- divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$]
- identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
- multiply one-digit numbers with up to two decimal places by whole numbers
- use written division methods in cases where the answer has up to two decimal places.
- solve problems which require answers to be rounded to specified degrees of accuracy
- recall and use equivalences between simple fractions, decimals and percentages including in different contexts.

Ratio and Proportion

- solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and use percentages for comparison
- solve problems involving similar shapes where the scale factor is known or can be found
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Numeracy

Algebra

- use simple formulae
- generate and describe linear number sequences
- express missing number problems algebraically
- find pairs of numbers that satisfy number sentences involving two unknowns
- enumerate possibilities of combinations of two variables

Measurement

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places

Geometry - properties of shapes

- draw 2-D shapes using given dimensions and angles
- recognise, describe and build simple 3-D shapes including making nets
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- illustrate and name parts of circle, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Geometry - position and direction

- describe positions on the full coordinate grid (all four quadrants)
- draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

Word Reading

Children will need to apply their growing knowledge of root words, prefixes and suffixes both to read aloud and to understand the meaning of new words that they meet.

Literacy

Comprehension

Children will be encouraged to maintain positive attitudes to reading and understanding of what they read by:

- continuing to read and discuss an increasingly wide range of fiction, poetry, plays, nonfiction and reference books or textbooks
- recommending books that they have read to their peers, giving reasons for their choices
- identifying and discussing themes and conventions in and across a wide range of writing
- making comparisons within and across books
- learning a wider range of poetry by heart
- preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience

Children will show that they understand what they read by:

- checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
- asking guestions to improve their understanding
- drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- predicting what might happen from details stated and implied

We sharpen these skills in our daily guided reading sessions where children are heard reading twice a week with an adult, in our independent reading sessions and our story time sessions at the end of the day.

We use the Accelerated Reader (AR) reading programme. Children will be set specific reading targets based on their reading level. It is imperative that children are in the habit of reading at home for at least 40 minutes each day and working hard to reach their individual targets.

Writing

Handwriting and presentation

Children will continue learning to write legibly, fluently and with increasing speed by:

- choosing which shape of a letter to use when given choices and deciding, as part of their personal style, whether or not to join specific letters
- choosing the writing implement that is best suited for a task (e.g. quick notes, letters)

Composition

Children will plan their writing by:

- identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
- noting and developing initial ideas, drawing on reading and research where necessary

Children will draft and write by:

- selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
- using a wide range of devices to build cohesion within and across paragraphs using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]

Children will evaluate and edit by:

- assessing the effectiveness of their own and others' writing
- proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
- proof-reading for spelling and punctuation errors
- performing their own compositions, using appropriate intonation, volume, and movement so that meaning is clear

Children will be taught how to indicate grammatical and other features by:

- using commas to clarify meaning or avoid ambiguity in writing
- using hyphens to avoid ambiguity
- using brackets, dashes or commas to indicate parenthesis
- using semi-colons, colons or dashes to mark boundaries between independent clauses
- using a colon to introduce a list
- punctuating bullet points consistently
- using grammatical terminology accurately and appropriately when discussing their writing and reading

Spelling

Pupils will learn how to:

- use further prefixes and suffixes and understand the guidance for adding them
- spell some words with 'silent' letters [for example, knight, psalm, solemn]
- continue to distinguish between homophones and other words which are often confused
- use their knowledge of words and how words are formed to understand that the spelling of some words need to be learnt specifically (as listed in the spelling list attached Appendix 2)
- use dictionaries to check the spelling and meaning of words
- use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary
- use a thesaurus.

Each week, the children will be given a list of spelling words to learn at school and at home. Some will come from the statutory year 5/6 spelling list (Appendix 1); others will come from previous SATs spelling words. We will investigate the key spelling rules e.g. what happens when we add suffixes. We will practise these words/rules during the week using different techniques. The children will be expected to learn these rules and words each week and will be tested on them every Thursday so that progress can be tracked. Typical year 6 words include: conquered, exaggerate, necessary, pronunciation, conscience and descendent

Texts

Goodnight Mr Tom- Michelle Magorian Refugee Boy- Benjamin Zephaniah The Boy at the back of the class Onjali Q Raúf Billy the Kid- Michael Morpurgo Wonder- R J Palacio

Living Things & Their Habitats

In this unit, children will describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. They will work on giving reasons for classifying plants and animals based on specific characteristics.

Animals (including humans)

Children will identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. They will recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function *describe the ways in which nutrients and water are transported within animals, including humans.

Science

Evolution & Inheritance

In this unit, children will learn that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. They will learn that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. They will identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Light

In this unit, children will learn that light appears to travel in straight lines.

They will use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. They will explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Children will use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Electricity

In this unit children will learn to associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. They will compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. They will use recognised symbols when representing a simple circuit in a diagram.

Using the internet - refining research skills to find key information to support independent work on biographies.

We are app planners - planning the creation of a mobile app.

Computing

We are project managers - developing project management skills.

We are market researchers - Link to E- safety and researching the app market

We are interface designers - designing an interface for an app

We are marketers - creating video and web copy for a mobile phone app

	History:	Geography:	Art:	DT:	RE:
Other Foundation Subjects	Migrations and Journeys Titanic Windrush Antarctic Explorers	Maps/Atlas Skills	Sculpture- Drawing – using charcoal and pencil	,	Judaism: Ros Hoshannah Yom Kippur Christianity: Lent and Easter Islam: Ramadan and Eid

Important Reminders:

PE will take place on Thursdays and it is really important that your child has a full PE kit in school. Homework will be given out every Thursday and should be returned the following Wednesday.

Accelerated Reader programme

Your child should be reading at home on a daily basis for at least 40 minutes each evening. Please sign and date their reading record book each evening. Please talk to your child about the book they are reading to support them with their comprehension skills.