Mathematics	Literacy	Science
• **Know and Use Numbers:** Read, write, order and compare numbers up to 10 000 000; Count forwards and backwards in steps of powers of 10 for any given number to 1, 000, 000; • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero; Round any number to 1,000,000 to the nearest 10, 100, 1000, 10 000 and 100. 000, Solve number problems and practical problems that involve all of the above. • **Addition and Subtraction:** Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places; Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods (columnar addition and subtraction); Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why; Use rounding to check answers to calculations and determine in the context of a problem levels of accuracy; Solve problems involving numbers up to 3 decimal places. • **Long multiplication, square numbers and cube numbers**: To multiply and divide numbers mentally drawing upon known facts; To multiply and divide whole number and decimals by 10, 100 and 1000; Solve problem involving multiplication and division, including scaling by simple fractions and problems involving simple rates. • Multiply multi-digit numbers up to 4 digits by a one or two-digit whole number using an efficient written method, including long multiplication for two-digit numbers; Recognise and use square	This term children will be studying WW1 through reading the class novel 'War Horse' by Michael Morpurgo. They will also be doing cross curricular writing based on their geography topic on Brazil (this will include character descriptions of mythical Brazilian characters, writing their own myths, creation stories and recounts). They will learn to: • Make comparisons within and across books and stories. • Participate in discussion about books, taking turns and listening and responding to what others say. • To predict what might happen from details stated or implied. • Participate in discussion about books, taking turns and listening and responding to what others say. • To write with purpose. • Identify an audience for writing. • Choose the appropriate form of writing • Note, develop and research ideas. • Plan, draft, edit, rewrite and improve. • Draw inferences such as inferring characters' feelings, thoughts and motives from their actions and justifying	**Properties and changes in materials** In this unit the children will learn to: • understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. • that some changes of state and dissolving and mixing processes can be reversed through filtering, sieving and evaporating. • explain that some changes form new materials, and that these changes are not usually reversible. • that new materials, and that these changes are often not reversible. • explain that some changes, caused by heating or cooling form new materials, and that these changes are often not reversible. • explain that changes caused by burning form new materials, and that these changes are not reversible. • compare and group together everyday materials on the basis of their properties. To compare and

numbers and cube numbers, and the notation for squared (2) and cubed (3). Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes; To solve problems involving addition, subtraction, multiplication and division and a combination of these, including the meaning of the equals sign. • **Fractions and decimals:** Compare and order fractions whose denominators are all multiples of the same number. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. Read and write decimal numbers as fractions. Read, write, order and compare numbers with up to three decimal places. Round decimals with two decimal places to the nearest whole number and to one decimal place. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Solve problems involving number up to three decimal places. **(Carried over from Autumn 2).** To recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements >1 as a mixed number: 2/5 + 4/5 = 6/5; Add and subtract fractions with the same denominator and multiples of the same number; To multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • **Tables and bar charts:** Complete, read and interpret information in tables, including timetables. **(Carried over from Autumn 2):** • **Reflections and Translations:** To identify, describe and represent the position of a shape	inferences with evidence. • Use and understand grammatical terminology when discussing writing and reading. • Use the techniques that authors use to create characters, setting and plots. • Use both familiar and new punctuation correctly in writing. • Write about more than one idea. • Organise paragraphs around a theme and sequence paragraphs. • Write paragraphs that give a sense of clarity. • Interweave descriptions of characters, settings and atmosphere with dialogue. • Identify recurring themes and elements of different stories and identify and discuss themes and conventions in and across a wide range of writing.	group together everyday materials on the basis of their properties. • give reasons based on evidence from comparative and fair tests, for the particular uses of everyday materials.

following a reflection or translation using the appropriate language, and know that the shape has not changed. • **Mass:** Convert between different units of metric measure; Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints; Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling. • **Percentages:** To recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred' and write percentages as a fraction with a denominator of hundred and as a decimal fraction. • **Capacity:** Convert between different units of measures (km and m; m and cm; cm and mm; kg and g; l and ml); To estimate volume and capacity; To use all four operations to solve problems involving measures (e.g. length, mass, volume, money) using decimal notation including scaling. • **Roman Numerals:** Read and write Roman numerals up to 1000.		