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Year 5 Curriculum

Science

Living Things and their Habitats

- Differences in the Life Cycles of Mammals, Amphibians, Insects and Birds
- Describe the life process of reproduction in some plants and animals.

Forces

- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- Identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

Animals, Including Humans

- Describe the changes as humans develop to old age

Earth and Space

- 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

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Year 5 Curriculum

Science

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
- 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
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

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Year 5 Curriculum

English

Grammar & punctuation in Year 5 (age 9–10)

- Create verbs by adding the suffixes -ate, –ise, -ify, for example, concentrate, cultivate, specialize, advertise, glorify, purify
- Use relative clauses (clauses that begin who, which, where, when, whose or that) to add more information about a noun to a sentence, for example:

‘I found the book that I was searching for.’
‘Mac won the prize, which upset Tash.’

- Use modal verbs, for example, would, should, could, will, may, might, shall or must to show how likely something is to happen
- Use adverbs, for example, definitely, certainly, clearly, obviously, possibly or maybe to show how likely something is to happen
- Use different ways to make the information in a paragraph flow
- Use brackets, dashes or commas to separate out extra information in a sentence, for example:

Mount Everest (the highest mountain in the world) is in the Himalayas.
Mount Everest – the highest mountain in the world – is in the Himalayas.
Mount Everest, the highest mountain in the world, is in the Himalayas.

- Use commas to make sentences clearer, for example:

‘We learned English,Math and Science in school.’
instead of
‘We learned English Math Science in school.’

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Year 5 Curriculum

English

Spelling in Year 5 (age 9–10)
Kids will learn:
- to spell words with silent letters, for example, doubt, island, lamb, solemn, thistle, knight
- to spell words ending in ence/ance or able/ible
- to spell more homophones and other confusing words
- Year 5 and 6 homophones list
- aisle/isle, aloud/allowed, affect/effect, altar/alter, ascent/assent, bridal/bridle, cereal/serial, compliment/complement, descent/dissent, desert/dessert, draft/draught, farther/further/father, guessed/guest, heard/herd, led/lead, morning/mourning, past/passed, precede/proceed, principal/principle, profit/prophet, stationary/stationery, steal/steel, wary/weary, who's/whose
- to talk about word families, for example, sign, design, signature, significant
- to use a thesaurus to find new words
- to use a dictionary to check their spelling

Writing in Year 5 (age 9–10)
In Year 5, your child will learn to:
- decide who they are writing for and what this means for their writing
- plan their writing before they start
- choose the right style and structure to match the type of text they are writing
- choose the right vocabulary and grammar for their writing
- write a story with plotting different characters and imagining different situations with interesting vocabulary and dialogue
- Narrative writing
- Dialogue writing
- Factual writing
- write non-fiction with features such as headings, captions, bullet points, subheadings and diagrams
- use a consistent tense throughout their piece
- check their own writing and the writing of their classmates, making useful comments.

Handwriting

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Year 5 Curriculum

Math

Number - Number and Place Value

- Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
- Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000
- Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- Round any number up 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
- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Number - Addition and Subtraction

- Add and subtract whole numbers with more than 4 digits, including using formal written methods
- Add and subtract numbers mentally with increasingly large numbers
- Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

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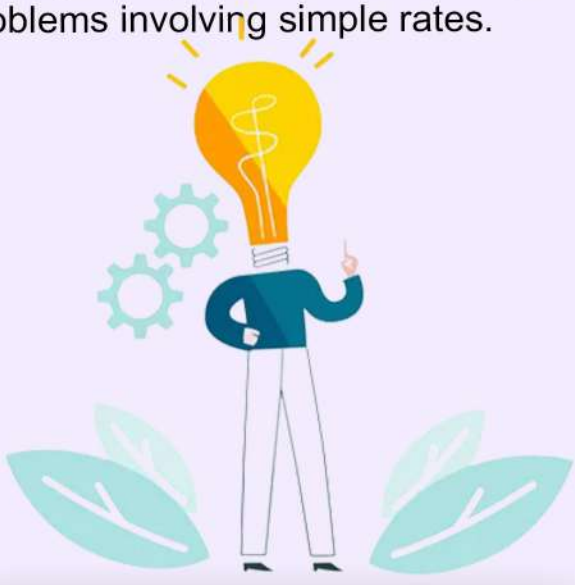
Year 5 Curriculum

Math

Number - Multiplication and Division

- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- Know and use the vocabulary of prime numbers, prime factors and composite numbers
- Establish whether a number up to 100 is prime and recall prime numbers up to 19
- Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- Multiply and divide numbers mentally drawing upon known facts
- Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- Recognise and use square numbers and cube numbers, and the notation for squared and cubed
- Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.



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Year 5 Curriculum

Math

Number - Fractions

- 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
- Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements greater than 1 as a mixed number
- Add and subtract fractions with the same denominator and denominators that are multiples of the same number
- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- Read and write decimal numbers as fractions
- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- Round decimals with two decimal places to the nearest whole number and to one decimal place
- Read, write, order and compare numbers with up to three decimal places
- Solve problems involving number up to three decimal places
- Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5, and those fractions with a denominator of a multiple of 10 or 25

Geometry - Properties of Shape

- Identify 3D shapes, including cubes and other cuboids, from 2D representations
- Use the properties of rectangles to deduce related facts and find missing lengths and angles
- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- Draw given angles, and measure them in degrees
- Identify: angles at a point and one whole turn; angles at a point on a straight line and a turn; other multiples of 90

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Year 5 Curriculum

Math

Measurement

- 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
- Measure and calculate the perimeter of composite rectilinear shapes in centimeters and meters
- Calculate and compare the area of rectangles (including squares), and including using standard units, square centimeters and square meters and estimate the area of irregular shapes
- Estimate volume and capacity
- Solve problems involving converting between units of time
- Use all four operations to solve problems involving measure using decimal notation, including scaling

Geometry - Position and Direction

- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

Statistics

- Solve comparison, sum and difference problems using information presented in a line graph
- Complete, read and interpret information in tables, including timetables