

Year 6 - Maths

Year 6	Number and place value	Addition and subtraction	Multiplication and division	Fractions	Measurement	Geometry	
						Properties of shape	Position and direction
Autumn	read, write, order and compare numbers up to 10,000,000 and determine the value of each digit	perform mental calculations, including with mixed operations and large numbers	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	use common factors to simplify fractions; use common multiples to express fractions in the same denomination	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	draw 2-D shapes using given dimensions and angles	describe positions on the full coordinate grid (all four quadrants)
	round any whole number to a required degree of accuracy	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	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	compare and order fractions, including fractions >1	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	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	
		solve problems involving addition, subtraction, multiplication and division	perform mental calculations, including with mixed operations and large numbers.	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	recognise that shapes with the same areas can have different perimeters and vice versa	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	
		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy	solve problems involving addition, subtraction, multiplication and division	multiply simple pairs of proper fractions, 1 writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)	recognise when it is possible to use formulae for area and volume of shapes	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
		Algebra: use simple formulae	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy	associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)			
		solve problems involving addition, subtraction, multiplication and division	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy	Algebra: use simple formulae	identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places		
		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy	Algebra: use simple formulae	Algebra: generate and describe linear number sequences	multiply one-digit numbers with up to two decimal places by whole numbers		
		Algebra: use simple formulae	Algebra: use simple formulae	RP: solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	solve problems which require answers to be rounded to specified degrees of accuracy		
			Algebra: use simple formulae	RP: solve problems involving the calculation of percentages (e.g. of measures) such as 15% of 360 and the use of percentages for comparison	recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		
			Algebra: use simple formulae	Statistics: calculate and interpret the mean as an average			
			Algebra: use simple formulae				

Spring	<p>uses negative numbers in context, and calculate intervals across zero</p> <p>solve number and practical problems that involve all of the above.</p>	<p>use their knowledge of the order of operations to carry out calculations involving the four operations</p> <p>Algebra: express missing number problems algebraically</p> <p>Algebra: find pairs of numbers that satisfy number sentences involving two unknowns</p>	<p>use their knowledge of the order of operations to carry out calculations involving the four operations</p> <p>identify common factors, common multiples and prime numbers</p> <p>express missing number problems algebraically</p> <p>Algebra: find pairs of numbers that satisfy number sentences involving two unknowns</p> <p>Algebra: enumerate all possibilities of combinations of two variables.</p> <p>RP: solve problems involving ratio and proportion</p> <p>RP: solve problems involving similar shapes where the scale factor is known or can be found</p> <p>RP: solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</p> <p>Statistics: interpret and construct pie charts and line graphs and use these to solve problems</p>	<p>divide proper fractions by whole numbers (e.g. $1/3 \div 2 = 1/6$)</p> <p>use written division methods in cases where the answer has up to two decimal places</p>	<p>convert between miles and kilometres</p> <p>calculate the area of parallelograms and triangles</p> <p>calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3.</p>	<p>recognise, describe and build simple 3-D shapes, including making nets</p>	<p>draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p>
	Summer	<p>solve number and practical problems that involve all of the above.</p>	<p>solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why</p> <p>Algebra: use simple formulae</p> <p>Algebra: find pairs of numbers that satisfy an equation with two unknowns.</p>	<p>solve problems involving addition, subtraction, multiplication and division</p> <p>RP: solve problems involving ratio and proportion</p> <p>RP: solve problems involving similar shapes where the scale factor is known or can be found</p> <p>RP: solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</p>	<p>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p> <p>solve problems which require answers to be rounded to specified degrees of accuracy</p>	<p>solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</p>	<p>compare and classify geometric shapes based on their properties and sizes</p> <p>find unknown angles in any triangles, quadrilaterals, and regular polygons.</p>

Year 6 – Reading

READING									
Year 6	Word Reading	Comprehension Clarify	Comprehension Monitor and Summarise	Comprehension Select and Retrieve	Comprehension Respond and Explain	Inference	Language for Effect	Themes and Conventions	
Autumn	Apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in English Appendix 1, both to read aloud and to understand the meaning of new words that they meet	<p>Check the book makes sense to them by discussing their understanding and exploring the meaning of words in context</p> <p>Ask questions to improve their understanding of a text</p> <p>Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary</p>	<p>Distinguish between statements of fact and opinion and recognise them in the language used by authors to influence readers</p> <p>Summarise main ideas drawn from more than one paragraph identifying the key details that support the main ideas</p>	<p>Retrieve, record and present information from non-fiction</p> <p>Skim and scan efficiently to extract information and make well-organised notes of the main ideas using quotation and reference to the text using own words</p>	<p>Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously</p> <p>Make comparisons within and across books</p> <p>Provide reasoned justifications for their views</p> <p>Evaluate how successfully the organisation of a text supports the writer's purpose</p>	<p>Predict what might happen from details stated and implied</p> <p>Draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence</p>	<p>Identify how language, structure, and presentation contribute to meaning</p> <p>Show understanding through intonation, tone and volume so that meaning is clear to an audience</p> <p>Evaluate how authors use language, including figurative language, considering the impact on the reader</p>	<p>Identify and discuss themes and conventions in a wide range of writing e.g. isolation or flashback</p> <p>Read books that are structured in different ways and read for a range of purposes</p> <p>Identify and comment on genre-specific language features used e.g. shades of meaning between similar words</p> <p>Make comparisons within and across books</p>	
	Spring			Produce a succinct summary, paraphrasing the main ideas from across the text or a range of sources		Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary	Refer to the text to support predictions and opinions	<p>Compare and discuss accounts of the same event through different character viewpoints</p> <p>Explore a similar theme or topic written in a different genre</p>	<p>Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader</p> <p>Recognise texts that contain features from more than one genre, or demonstrate shifts in formality</p>
		Summer					Begin to see how inferences draw on the connotations of words, their use in context and that they can be cumulative	Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear	Explain and justify how texts relate to audience, purpose, time and culture, and refer to specific aspects of a text that exemplify this

Year 6 – Writing

Year 6		WRITING					
		Transcription	Handwriting	Composition Composition and Effect	Composition Text Structure and Organisation	Composition Sentence Structure	Vocabulary, grammar and punctuation
Autumn	<p>Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically, as listed in English Appendix 1</p> <p>Use dictionaries to check the spelling and meaning of words</p> <p>Use a thesaurus</p> <p>Recognise how words are related by meaning as synonyms and antonyms</p>	<p>Write legibly, fluently and with increasing speed by choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters</p> <p>Write legibly, fluently and with increasing speed choosing the writing implement that is best suited for a task</p>	<p>Note and develop initial ideas, drawing on reading and research where necessary</p> <p>Identify the audience for and purpose of the writing</p> <p>Select the appropriate form and use other similar writing as models for their own</p> <p>Evaluate and edit by assessing the effectiveness of their own and others' writing</p> <p>Propose changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning</p> <p>Use adverbs, prepositional phrases and expanded noun phrases effectively for qualification and precision</p> <p>Understand and apply the difference between vocabulary typical of informal speech and vocabulary appropriate for formal speech and writing e.g. find out/ discover; find out/ request; go in/ enter</p>	<p>Use further organisational and presentational devices to structure text and to guide the reader e.g. headings, bullet points, underlining, columns, tables</p> <p>Draft and write by using a wide range of devices to build cohesion within paragraphs</p> <p>Link ideas across paragraphs using a wider range of cohesive devices e.g. repetition of a word or phrase, grammatical connections (tense choice/ adverbials) and ellipsis</p>	<p>Use a wide range of clause structures, sometimes varying their position within the sentence</p> <p>Use the passive to affect the presentation of information in a sentence e.g. I broke the window in the greenhouse / the window in the greenhouse was broken</p> <p>Use the structures typical of informal speech e.g. the use of question tags: He's your friend, isn't he?</p> <p>Use the structures appropriate for formal speech and writing e.g. subjunctive forms such as <u>If I were</u> or <u>Were they</u> to come</p>	<p>Proof-read for spelling and punctuation errors</p> <p>Ensure the consistent and correct use of tense throughout a piece of writing</p> <p>Use relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun</p> <p>Use correct subject and verb agreement when using singular and plural</p> <p>Use brackets, dashes or commas to indicate parenthesis</p> <p>Use a colon to introduce a list</p> <p>Use a semi colon within lists</p> <p>Use semi colons, colons or dashes to mark boundaries between independent clauses</p> <p>Use hyphens to avoid ambiguity</p>	
	Spring	<p>Use further prefixes and suffixes and understand the guidance for adding them</p> <p>Spell some words with 'silent' letters</p>		<p>In narratives, describe settings, characters and atmosphere</p> <p>Integrate dialogue to convey character and advance the action</p> <p>Use figurative language such as similes, alliteration, metaphors and personification in a range of writing</p> <p>Select verb forms for meaning and effect e.g. deliberate change of tense</p>			<p>Use the perfect form of verbs to mark relationships of time and cause</p> <p>Use modal verbs or adverbs to indicate degrees of possibility</p> <p>Punctuate bullet points consistently</p>
	Summer	<p>Continue to distinguish between homophones and other words which are often confused</p>		<p>Manage shifts in levels of formality within a text</p> <p>Select synonyms accurately for effect rather than as an alternative for an original word</p>			<p>Use and understand the grammatical terminology in English Appendix 2 accurately and appropriately when discussing their writing and reading: subject, object, active, passive, synonym, antonym, ellipsis, hyphen, comma, semi colon, bullet points</p>