Medium Term Planning — Number - Year 4

Where possible, the contents of this unit should be taught through cross-curricular opportunities.

	Year 4 Objectives AUTUMN	Year 4 Objectives SPRING	Year 4 Objectives SUMMER
Cross Phase Elements	To explain logically their strategies and solutions using mathematical language and give reasons to justify.		
	To provide real life contexts for mathematical learning e.g. real life problems, world of work, financial literacy, patterns in nature		
	To understand, investigate and apply the range of ways maths can be used to solve practical problems.		
	To explore number through practical and visual resources, models and equipment including structured maths equipment.		
	Use mathematical literacy, estimation, problem-solving and organising work, etc.		
	To use known facts and the inverse to check.		
	To recognise and use the appropriate method of calculation - mental, written or calculator.		
	To explore the history and development of maths in different cultures and periods of time and investigate the work of famous mathematicians		
Using and Applying	M1q. To solve problems, selecting from an increasing range of equipment and strategies, organising work and checking results.		
	M1r. To explain their strategies and solutions using mathematical language and give reasons to justify.		
Counting and Understanding Number	M1a. To read, write, order and compare numbers up to 1000, including negative numbers.	M1a. To read, write, order and compare numbers up to 1000, including negative numbers.	M1a. To read, write, order and compare numbers up to 1000, including negative numbers.
	M1b. To partition and recombine numbers and understand place value	M1b. To partition and recombine numbers and understand place value	M1b. To partition and recombine numbers and understand place value
		M1j. To understand, order and use unit fractions (eg 1/5, 1/8) as well as simple fractions that are several parts of a whole (eg 3/4 , 2/5), recognising simple equivalence	M1j. To understand, order and use unit fractions (eg 1/5, 1/8) as well as simple fractions that are several parts of a whole (eg 3/4 , 2/5), recognising simple equivalence
	M1l. To understand the concept of decimal places and begin to use this in relevant contexts e.g. money and measure.	M1l. To understand the concept of decimal places and begin to use this in relevant contexts e.g. money and measure.	M1l. To understand the concept of decimal places and begin to use this in relevant contexts e.g. money and measure.
Knowing and Using Number Facts	M1c. To estimate numbers, including rounding, and understand when that can be useful.	M1c. To estimate numbers, including rounding, and understand when that can be useful.	M1c. To estimate numbers, including rounding, and understand when that can be useful.
		M1d. To identify factors and multiples, begin to recognise prime numbers and square numbers, beginning to find factor pairs of numbers to 2 digits.	M1d. To identify factors and multiples, begin to recognise prime numbers and square numbers, beginning to find factor pairs of numbers to 2 digits.
	M1g. To learn all multiplication facts up to 10 x 10 and derive corresponding division facts.	M1g. To learn all multiplication facts up to 10 x 10 and derive corresponding division facts.	M1g. To learn all multiplication facts up to 10 x 10 and derive corresponding division facts.
			M1o. To introduce simple ratio in context through practical activities.

Calculating	M1e. To derive quickly complements to 100. To add and subtract any pair of two digit numbers mentally, drawing on a range of strategies	M1e. To derive quickly complements to 100. To add and subtract any pair of two digit numbers mentally, drawing on a range of strategies	
	M1f. To use appropriate written methods of addition and subtraction with whole numbers up to 1000	M1f. To use appropriate written methods of addition and subtraction with whole numbers up to 1000	M1f.To use appropriate written methods of addition and subtraction with whole numbers up to 1000
	M1h. To multiply a 2 digit number by a single digit number and 10, using an appropriate written method.	M1h. To multiply a 2 digit number by a single digit number and 10, using an appropriate written method.	M1h. To multiply a 2 digit number by a single digit number and 10, using an appropriate written method.
	M1i. To divide 2 digit numbers by a single digit number and with remainders, using an appropriate written method	M1i. To divide 2 digit numbers by a single digit number and with remainders, using an appropriate written method	M1i. To divide 2 digit numbers by a single digit number and with remainders, using an appropriate written method
		M1k. To use knowledge to find fractions of shapes and calculate fractions of amounts.	M1k. To use knowledge to find fractions of shapes and calculate fractions of amounts.

Medium Term Planning — Algebra - Year 4

Where possible, the contents of this unit should be taught through cross-curricular opportunities.

	Year 4 Objectives AUTUMN	Year 4 Objectives SPRING	Year 4 Objectives SUMMER
Cross Phase Elements	To explain logically their strategies and solutions using mathematical language and give reasons to justify.		
	To provide real life contexts for mathematical learning e.g. real life problems, world of work, financial literacy, patterns in nature		
	To understand, investigate and apply the range of ways maths can be used to solve practical problem		
	Explore algebra through practical and visual resources, models and equipment including structured maths equipment.		
Using and applying	M1q. To solve problems, selecting from an increasing range of equipment and strategies, organising work and checking results.		
	M1r. To explain their strategies and solutions using mathematical language and give reasons to justify.		
Algebra	M4a. To generate and explore a range of number patterns (counting forwards and backwards), including finding missing numbers.	M4a. To generate and explore a range of number patterns (counting forwards and backwards), including finding missing numbers.	M4a. To generate and explore a range of number patterns (counting forwards and backwards), including finding missing numbers.
	M4d. To investigate missing numbers and increasingly complex empty box problems, including inverse operations.	M4d. To investigate missing numbers and increasingly complex empty box problems, including inverse operations.	M4d. To investigate missing numbers and increasingly complex empty box problems, including inverse operations.

Medium Term Planning — Shape, space and measure - Year 4

Where possible, the contents of this unit should be taught through cross-curricular opportunities.

	Year 4 Objectives AUTUMN	Year 4 Objectives SPRING	Year 4 Objectives SUMMER
Cross Phase Elements	To explain logically their strategies and solutions using mathematical language and give reasons to justify		
	To provide real life contexts for mathematical learning e.g. real life problems, world of work, financial literacy and patterns in nature		
	To understand, investigate and apply the range of ways maths can be used to solve practical problems		
	To explore shape and measures through practical and visual resources, models and equipment including structured maths equipment		
	To experience real shape and measures through a range of indoor and outdoor experiences.		

	To estimate using appropriate measures.		
Using and applying	M2q. To solve problems, selecting from an increasing range of equipment and strategies, organising work and checking results.		
	M2r. To explain their strategies and solutions using mathematical language and give reasons to justify.		
Understanding Shape		M2a. To identify and classify more complex 2D and 3D shapes.	
		M2b. To use the appropriate vocabulary to describe properties of 2D and 3D shapes. To explore nets of 3D shapes.	
		M2c. To explore shape and pattern in real life contexts e.g. nature, architecture and art.	
		M2d. To explore tessellation practically and in the context of art and find out about its origins, and its use in different cultures, religions and architecture	
		M2e. To recognise symmetry properties of 2D shapes and patterns.	
Position and Movement			M2l. To measure angles using fractions of turn and right angles e.g. quarter turn and half turn and use associated vocabulary to describe angles.
			M2n. To use positional and directional language in relation to compasses.
			M2f. To begin to understand, read and plot coordinates in the first quadrant.
Measure	M2g. To use standard units to estimate and measure length, mass and capacity.		M2g. To use standard units to estimate and measure length, mass and capacity.
	M2h. To extend understanding of scales to include reading with divisions of 2, 5 or 10.		M2h. To extend understanding of scales to include reading with divisions of 2, 5 or 10.
	M2i. To begin to convert between a variety of measures.		M2i. To begin to convert between a variety of measures.
		M2k. To measure and calculate the perimeter and the area of regular shapes.	
	M2o. To continue to develop an awareness of the concept of time (days of the week, months of the year and seasons) and experience units of time	M2o. To continue to develop an awareness of the concept of time (days of the week, months of the year and seasons) and experience units of time	

	M2p. To tell the time on digital and analogue clocks to five minute intervals	M2p. To tell the time on digital and analogue clocks to five minute intervals	M2p. To tell the time on digital and analogue clocks to five minute intervals

Medium Term Planning — Handling Data - Year 4

Where possible, the contents of this unit should be taught through cross-curricular opportunities.

	Year 4 Objectives AUTUMN	Year 4 Objectives SPRING	Year 4 Objectives SUMMER
Cross Phases Elements	To explain logically their strategies and solutions using mathematical language and give reasons to justify.		
	To provide real life contexts for mathematical learning e.g.real life problems, world of work, financial literacy, patterns in nature		
	To understand, investigate and apply the range of ways maths can be used to solve practical problems		
	To explore data handling through practical and visual resources, models and equipment including structured maths equipment.		
	To experience data handling through a range of contextual indoor and outdoor experiences.		
	To use digital technology to collect, store, present and analyse relevant and contextual data.		
Using and applying	M3f. To interpret their own and others' data, using observations and measurements to identify patterns and draw conclusions using simple mathematical language.		
Handling Data			M3a. To make predictions based on prior understanding.
		M3b. To use venn and carroll diagrams to sort and organise data using more than one criterion.	
			M3c. To begin to make decisions on what data to collect, how to collect it and how to record it.
			M3d. To understand and construct bar charts, tally charts, frequency tables and diagrams, infographic and pictograms to display data in a range of ways.
			M3e. Use scales where intervals represent a group of units.
			M3f. To interpret their own and others' data, using observations and measurements to identify patterns and draw conclusions using simple mathematical language.

Medium Term Planning — Financial Literacy - Year 4

Where possible, the contents of this unit should be taught through cross-curricular opportunities.

	Year 4 Objectives AUTUMN	Year 4 Objectives SPRING	Year 4 Objectives SUMMER
Cross Phases Elements	Students have an entitlement to take part in an enterprise activity in a meaningful context in each phase of their education.		
	Students are aware of the achievements of successful (and unsuccessful) entrepreneurs locally, nationally and internationally.		
	Aware of a range of currencies and their relative values		
	To be made aware of the abstract and invisible nature of money and spending		
	Participate in a range of fundraising activities that benefit on a personal level, the community and internationally.		
Using and Applying	M1b. To add and subtract amounts of money to give change, using both £ and p in practical contexts.		
Financial understanding and Competence		M1c. To estimate, compare and calculate different measures, including money in pounds and pence.	M1c. To estimate, compare and calculate different measures, including money in pounds and pence.
		M1e. To develop an understanding of the concepts of money, budgeting, saving,	M1e. To develop an understanding of the concepts of money, budgeting, saving, spending and borrowing.

		spending and borrowing.	
		M1f. To understand the concepts of credit and debt in terms of positive & negative balances.	M1f. To understand the concepts of credit and debt in terms of positive & negative balances.
Financial Responsibility		M2a. To be able to make real choices regarding how to spend and save money sensibly.	
		M2b. To understand social and moral dilemmas that they come across in everyday life including how they use money.	
		M2c. To be able to look after their money and realise that future wants and needs may be met through saving.	
		M2d. To assess value for money by investigating all options.	
Financial Enterprise			M3a. To understand about enterprise and awareness of the achievements of significant entrepreneurs
Decision Making and Critical Thinking			M4a. To budget and evaluate choices with increasingly complexity.
		M1f. To understand the concepts of credit and debt in terms of positive & negative balances.	M1f. To understand the concepts of credit and debt in terms of positive & negative balances.