YEAR 7 - Pi	KS3 Maths Progress	
TERM	UNIT / LESSON	OBJECTIVES
AUTUMN	**1 Analysing and displaying data**	
	1.1 Tables and pictograms	Find information from tables and pictograms.
	1.2 Bar charts	Find information from bar and bar-line charts.
		Display data using bar and bar-line charts.
	1.3 Grouped data	Organise data using a tally chart.
		Understand and use frequency tables.
		Understand and draw a grouped bar chart.
	1.4 Mode and modal class	Find the mode of a set of data.
		Find the modal class of a set of data.
	1.5 Range and median	Find the range and median of a set of data.
		Compare sets of data using their range, mode and median
	1.6 Mean	Calculate the mean of a set of data.
AUTUMN	**2 Calculating**	
	2.1 Adding	Add numbers together in different ways.
		Round to the nearest 10.
		Approximate before adding.
	2.2 Subtracting	Subtract numbers in different ways.
		Approximate before subtracting.
	2.3 Multiplying	Multiply numbers.
		Recognise multiples.
		Recognise square numbers.
		Find roots of square numbers on a calculator.
	2.4 Dividing	Divide one number by another.
		Use times tables to help you divide.
		Use approximation to estimate division calculations.
	2.5 Multiplying and dividing by 10, 100 and 1000	Multiply and divide by 10, 100 and 1000.
	2.6 Using the four operations	Use addition, subtraction, multiplication and division.
		Solve simple ratio and proportion problems.
	2.7 Positive and negative numbers	Use simple negative numbers.
		Continue a sequence.
HALF-TERM TEST		
AUTUMN	**3 Expressions, functions and formulae**	
	3.1 Using functions	Find outputs of simple functions.
	3.2 Function machines	Describe simple functions using words or symbols.
	3.3 Simplify expressions	Simplify expressions.
	3.4 Writing expressions	Write expressions given a description in words.
	3.5 STEM: Using formulae	Substitute positive integers into simple formulae written in words.
		Substitute integers into simple formulae written in letter symbols.
	3.6 Writing formulae	Write simple formulae using words and letter symbols.
AUTUMN	**4 Graphs**	
	4.1 Real-life graphs	Read information from real-life graphs.
		Draw graphs to show change over time.
	4.2 Coordinates	Write the coordinates of points on a grid.
		Plot points from their coordinates.
	4.3 Graphs of functions	Plot graphs of simple functions.
		Read values from graphs.
	4.4 STEM: Scientific graphs	Draw line graphs to show relationships between quantities.
		Read values from science graphs.
END OF TERM TEST		
SPRING	**5 Factors and multiples**	
	5.1 Number rules and relationships	Understand the priority of operations.
		Understand the rules of multiplication.
		Use the operation keys on a calculator.
	5.2 Multiples	Recognise multiples of 2, 5, 10 and 25.
		Work out multiples.

	5.3 Multiplication	Multiply 3-digit numbers by a single digit.
		Round numbers to the nearest 100 and 1000.
	5.4 Division	Divide 3-digit numbers by a single digit.
		Decide whether you can divide a number by 2, 5, 9 or 10.
		Begin to identify factors of numbers.
	5.5 Solving problems	Solve problems involving multiplication and division.
		Use a calculator to solve multiplication and division problems.
	5.6 Factors and primes	Find factors of numbers.
		Identify prime numbers.
	5.7 Common factors and multiples	Recognise and use multiples, factors and primes.
		Find common factors and common multiples.
		Work out the HCF and LCM of two numbers.
		Work out if a number is divisible by 3, 4 or 6.
SPRING	**6 Decimals and measures**	R:\Subjects\Maths\2016-17\Reasoning Fluency Problem Solving Resources\decimals.notebook
	6.1 Estimates and measures	Estimate, and choose suitable units, to measure length, mass and capacity.
		Draw lines to the nearest mm and measure lines to the nearest cm.
		Read a variety of scales.
		Record estimates to a suitable degree of accuracy.
	6.2 Decimal numbers	Read and write numbers in figures and words.
		Understand, compare, order and use decimals for tenths and hundredths, including in measures.
		Read and interpret scales using decimals.
	6.3 Metric units	Order metric measurements.
		Convert between different units of measure.
		Read and interpret scales.
		Record measurements.
	6.4 Adding and subtracting decimals	Recognise and extend number sequences by counting in decimals.
		Add and subtract decimal numbers.
		Extend mental methods of calculation, to include decimals.
	6.5 Rounding	Round decimals to nearest whole number and nearest tenth.
		Use a calculator and interpret the display in different contexts (decimals).
	6.6 Multiplying and dividing decimals	Consolidate and extend mental calculation methods, including decimals.
		Multiply and divide decimal numbers.
	6.7 FINANCE: Calculating with money	Use a calculator to solve word problems involving money.
		Round amounts on a calculator to 2 decimal places.
HALF-TERM TEST		
SPRING	**7 Angles and lines**	
	7.1 Right angles and lines	Know a right angle is 90 degrees.
		Recognise quarter, half and three-quarter turns.
		Recognise parallel and perpendicular lines.
		Use compass points.
	7.2 Measuring angles 1	Recognise acute and obtuse angles.
		Measure acute angles.
		Label lines and angles.
	7.3 Measuring angles 2	Recognise acute, obtuse and reflex angles.
		Measure obtuse angles.
	7.4 Drawing and estimating angles	Estimate the size of angles.
		Draw acute angles.
	7.5 Putting angles together	Find missing angles on a straight line.
		Find missing angles round a point.
END OF TERM TEST		
SUMMER	**8 Measuring and shapes**	
	8.1 Shapes	Identify triangles, squares and rectangles.

		Recognise the properties of triangles, squares and rectangles.
	8.2 Symmetry in shapes	Describe the line symmetry of triangles, quadrilaterals and other shapes.
	8.3 More symmetry	Solve problems using line symmetry.
		Describe rotational symmetry.
	8.4 Regular polygons	Identify polygons.
		Understand the line and rotational symmetry of rotational polygons.
	8.5 Perimeter	Find the perimeter of squares, rectangles and regular polygons.
		Calculate the perimeter of shapes made from rectangles.
		Solve problems involving the perimeter of squares and rectangles.
	8.6 Area	Use metric units to measure area.
		Calculate the area of squares and rectangles.
SUMMER	**9 Fractions, decimals and percentages**	
	9.1 Comparing fractions	Order fractions.
		Use fractions to describe parts of shapes.
	9.2 Equivalent fractions	Identify equivalent fractions.
		Simplify fractions by cancelling.
		Change an improper fraction to a mixed number.
	9.3 Calculating with fractions	Calculate simple fractions of quantities.
	9.4 Adding and subtracting fractions	Add and subtract simple fractions.
	9.5 Introducing percentages	Understand percentage as 'the number of parts per 100'.
		Write a percentage as a fraction or decimal.
	9.6 FINANCE: Finding percentages	Calculate percentages.
HALF-TERM TEST		
SUMMER	**10 Transformations**	
Pi 1	10.1 Reflection	Reflect a shape in a mirror line.
	10.2 Translation	Translate a shape.
	10.3 Rotation	Draw and describe rotations.
	10.4 STEM: Congruency	Identify congruent shapes.
Pi 3	**Pi 3:** 10.1 Quadrilaterals	Identify the properties of quadrilaterals.
END OF TERM TEST		
END OF YEAR TEST		