PEARSON/EDEXCEL SCHEMES OF WORK ADAPTED FOR FOREST HILL SCHOOL (KS3: EXPLORER)

YEAR 7	KS3 Maths Progress			Pi 1 and Pi 3

Autumn (Column 1)

Wk.	TERM	UNIT / LESSON	STEPS FROM	STEPS TO	OBJECTIVES
	AUTUMN	1 Analysing and displaying data	1st (grade 1)	4th (grade 2)	
1	04/09/2017	1.1 Tables and pictograms	1st (grade 1)	3rd (grade 2)	Find information from tables and pictograms.
2	11/09/2017	1.2 Bar charts	2nd (grade 1)	3rd (grade 2)	Find information from bar and bar-line charts.
3	18/09/2017				Display data using bar and bar-line charts.
		1.3 Grouped data	2nd (grade 1)	3rd (grade 2)	Organise data using a tally chart.
					Understand and use frequency tables.
		INVESTIGATION: KS3 DATA COLLECTION			Understand and draw a grouped bar chart.
		1.4 Mode and modal class	3rd (grade 2)	3rd (grade 2)	Find the mode of a set of data.
					Find the modal class of a set of data.
		1.5 Range and median	2nd (grade 1)	4th (grade 2)	Find the range and median of a set of data.
					Compare sets of data using their range, mode and median
		1.6 Mean	3rd (grade 2)	4th (grade 2)	Calculate the mean of a set of data.
4	25/09/2017	PROBLEM-SOLVING ACTIVITIES			
	AUTUMN	2 Calculating	1st (grade 1)	3rd (grade 2)	
5	02/10/2017	2.1 Adding	1st (grade 1)	2nd (grade 1)	Add numbers together in different ways.
6	09/10/2017				Round to the nearest 10.
					Approximate before adding.
		2.2 Subtracting	1st (grade 1)	2nd (grade 1)	Subtract numbers in different ways.
					Approximate before subtracting.
		2.3 Multiplying	1st (grade 1)	3rd (grade 2)	Multiply numbers.
		RICH TASK 2: FACTORS & MULTIPLES GAME			Recognise multiples.
		RICH TASK 16: HOW MANY POLAR BEARS?			Recognise square numbers.
					Find roots of square numbers on a calculator.
		2.4 Dividing	1st (grade 1)	3rd (grade 2)	Divide one number by another.
		INVESTIGATION: OPPOSITE CORNERS			Use times tables to help you divide.
		INVESTIGATION: PARTITIONING			Use approximation to estimate division calculations.
		2.5 Multiplying and dividing by 10, 100 and 1000	3rd (grade 2)	3rd (grade 2)	Multiply and divide by 10, 100 and 1000.
		2.6 Using the four operations	1st (grade 1)	3rd (grade 2)	Use addition, subtraction, multiplication and division.
					Solve simple ratio and proportion problems.
		2.7 Positive and negative numbers	1st (grade 1)	3rd (grade 2)	Use simple negative numbers.
		RICH TASK 14: WHY IS 1089 SO SPECIAL?			Continue a sequence.
7	16/10/2017	PROBLEM-SOLVING; REVISION		HALF TERM TEST	

	AUTUMN	3 Expressions, functions and formulae	2nd (grade 1)	5th (grade 3)	
8	30/10/2017	3.1 Using functions	2nd (grade 1)	2nd (grade 1)	Find outputs of simple functions.
9	06/11/2017	3.2 Function machines	3rd (grade 2)	3rd (grade 2)	Describe simple functions using words or symbols.
	RICH TASK 11: NUMBER REVERSE	3.3 Simplify expressions	3rd (grade 2)	3rd (grade 2)	Simplify expressions.
		3.4 Writing expressions	4th (grade 2)	4th (grade 2)	Write expressions given a description in words.
		3.5 STEM: Using formulae	3rd (grade 2)	5th (grade 3)	Substitute positive integers into simple formulae written in words.
	RICH TASK 3: CHOOSE 3 NUMBERS	RICH TASK 23: SUMMING CONSECUTIVE NUMBERS			Substitute integers into simple formulae written in letter symbols.
		3.6 Writing formulae	4th (grade 2)	4th (grade 2)	Write simple formulae using words and letter symbols.
10	13/11/2017	PROBLEM-SOLVING ACTIVITIES		RICH TASK 8: DIFFY?	
	AUTUMN	4 Graphs	2nd (grade 1)	5th (grade 3)	
11	20/11/2017	4.1 Real-life graphs	3rd (grade 2)	3rd (grade 2)	Read information from real-life graphs.
12	27/11/2017				Draw graphs to show change over time.
		4.2 Coordinates	2nd (grade 1)	5th (grade 3)	Write the coordinates of points on a grid.
		RICH TASK 15: SQUARE COORDINATES			Plot points from their coordinates.
		4.3 Graphs of functions	4th (grade 2)	4th (grade 2)	Plot graphs of simple functions.
					Read values from graphs.
		4.4 STEM: Scientific graphs	5th (grade 3)	5th (grade 3)	Draw line graphs to show relationships between quantities.
					Read values from science graphs.
13	04/12/2017	PROBLEM-SOLVING ACTIVITIES			
14	11/12/2017	PROBLEM-SOLVING; REVISION		END OF TERM TEST	

Spring (Column 2)

	TERM	UNIT / LESSON	STEPS FROM	STEPS TO	LEARNING OBJECTIVES
	SPRING	5 Factors and multiples	1st (grade 1)	3rd (grade 2)	
15	01/01/2018	5.1 Number rules and relationships	1st (grade 1)	3rd (grade 2)	Understand the priority of operations.
16	08/01/2018	RICH TASK 1: POSITIVE DIFFERENCES			Understand the rules of multiplication.
					Use the operation keys on a calculator.
		5.2 Multiples	1st (grade 1)	2nd (grade 1)	Recognise multiples of 2, 5, 10 and 25.
					Work out multiples.
		5.3 Multiplication	2nd (grade 1)	3rd (grade 2)	Multiply 3-digit numbers by a single digit.
					Round numbers to the nearest 100 and 1000.
		5.4 Division	1st (grade 1)	3rd (grade 2)	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	1st (grade 1)	2nd (grade 1)	Solve problems involving multiplication and division.
					Use a calculator to solve multiplication and division problems.
		5.6 Factors and primes	2nd (grade 1)	3rd (grade 2)	Find factors of numbers.
					Identify prime numbers.
		5.7 Common factors and multiples	2nd (grade 1)	3rd (grade 2)	Recognise and use multiples, factors and primes.
					Find common factors and common multiples.
					Work out the HCF and LCM of two numbers.
17	15/01/2018	PROBLEM-SOLVING ACTIVITIES			Work out if a number is divisible by 3, 4 or 6.
	SPRING	6 Decimals and measures	1st (grade 1)	5th (grade 3)	
		6.1 Estimates and measures	1st (grade 1)	3rd (grade 2)	Estimate, and choose suitable units, to measure length, mass and capacity.
18	22/01/2018				Draw lines to the nearest mm and measure lines to the nearest cm.
19	29/01/2018				Read a variety of scales.
					Record estimates to a suitable degree of accuracy.
		6.2 Decimal numbers	1st (grade 1)	3rd (grade 2)	Read and write numbers in figures and words.
		RICH TASK 28: DECIMAL ARITHMETIC			including in measures.
					Read and interpret scales using decimals.
		6.3 Metric units	2nd (grade 1)	3rd (grade 2)	Order metric measurements.
					Convert between different units of measure.
					Read and interpret scales.
					Record measurements.
		6.4 Adding and subtracting decimals	2nd (grade 1)	3rd (grade 2)	Recognise and extend number sequences by counting in decimals.
		RICH TASK 5: NUMBER SHACK			Add and subtract decimal numbers.
					Extend mental methods of calculation, to include decimals.
		6.5 Rounding	2nd (grade 1)	3rd (grade 2)	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	3rd (grade 2)	3rd (grade 2)	Consolidate and extend mental calculation methods, including decimals.
					Multiply and divide decimal numbers.
		6.7 FINANCE: Calculating with money	3rd (grade 2)	5th (grade 3)	Use a calculator to solve word problems involving money.
20	05/02/2018	PROBLEM-SOLVING; REVISION		HALF TERM TEST	Round amounts on a calculator to 2 decimal places.

	SPRING	7 Angles and lines	1st (grade 1)	3rd (grade 2)	
21	19/02/2018	7.1 Right angles and lines	1st (grade 1)	3rd (grade 2)	Know a right angle is 90 degrees.
22	26/02/2018				Recognise quarter, half and three-quarter turns.
					Recognise parallel and perpendicular lines.
					Use compass points.
		7.2 Measuring angles 1	2nd (grade 1)	2nd (grade 1)	Recognise acute and obtuse angles.
		RICH TASK 10: HOW MANY ANGLES?			Measure acute angles.
					Label lines and angles.
		7.3 Measuring angles 2	3rd (grade 2)	3rd (grade 2)	Recognise acute, obtuse and reflex angles.
					Measure obtuse angles.
		7.4 Drawing and estimating angles	2nd (grade 1)	3rd (grade 2)	Estimate the size of angles.
					Draw acute angles.
		7.5 Putting angles together	3rd (grade 2)	3rd (grade 2)	Find missing angles on a straight line.
					Find missing angles round a point.
23	05/03/2018	PROBLEM-SOLVING ACTIVITIES			
	SPRING	8 Measuring and shapes	1st (grade 1)	4th (grade 2)	
24	12/03/2018	8.1 Shapes	1st (grade 1)	3rd (grade 2)	Identify triangles, squares and rectangles.
25	19/03/2018	INVESTIGATION: FLAGGING			Recognise the properties of triangles, squares and rectangles.
		8.2 Symmetry in shapes	2nd (grade 1)	4th (grade 2)	Describe the line symmetry of triangles, quadrilaterals and other shapes.
		8.3 More symmetry	3rd (grade 2)	4th (grade 2)	Solve problems using line symmetry.
					Describe rotational symmetry.
		8.4 Regular polygons	1st (grade 1)	3rd (grade 2)	Identify polygons.
					Understand the line and rotational symmetry of rotational polygons.
		8.5 Perimeter	1st (grade 1)	3rd (grade 2)	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	2nd (grade 1)	3rd (grade 2)	Use metric units to measure area.
					Calculate the area of squares and rectangles.
26	26/03/2018	PROBLEM-SOLVING; REVISION		END OF TERM TEST	

Summer (Column 3)

STEPS REFER TO THE 12-STEP PEARSON MODEL

	TERM	UNIT / LESSON	STEPS FROM	STEPS TO	LEARNING OBJECTIVES
	SUMMER	9 Fractions, decimals and percentages	1st (grade 1)	3rd (grade 2)	
27	16/04/2018	9.1 Comparing fractions	1st (grade 1)	3rd (grade 2)	Order fractions.
28	23/04/2018				Use fractions to describe parts of shapes.
		9.2 Equivalent fractions	1st (grade 1)	3rd (grade 2)	Identify equivalent fractions.
					Simplify fractions by cancelling.
					Change an improper fraction to a mixed number.
		9.3 Calculating with fractions	1st (grade 1)	3rd (grade 2)	Calculate simple fractions of quantities.
		9.4 Adding and subtracting fractions	3rd (grade 2)	3rd (grade 2)	Add and subtract simple fractions.
		9.5 Introducing percentages	2nd (grade 1)	3rd (grade 2)	Understand percentage as 'the number of parts per 100'.
					Write a percentage as a fraction or decimal.
		9.6 FINANCE: Finding percentages	3rd (grade 2)	3rd (grade 2)	Calculate percentages.
29	30/04/2018	PROBLEM-SOLVING ACTIVITIES		RICH TASK 7: FRACTION ARRANGEMENT	
	SUMMER Pi 1	10 Transformations	1st (grade 1)	5th (grade 3)	
		10.1 Reflection	1st (grade 1)	3rd (grade 2)	Reflect a shape in a mirror line.
		RICH TASK 18: ENTRAPMENT			
30	07/05/2018	10.2 Translation	2nd (grade 1)	3rd (grade 2)	Translate a shape.
		RICK TASK 4: WILL THEY MEET?			
31	14/05/2018	10.3 Rotation	3rd (grade 2)	4th (grade 2)	Draw and describe rotations.
		10.4 STEM: Congruency	1st (grade 1)	4th (grade 2)	Identify congruent shapes.
	Pi 3	Pi 3: 10.1 Quadrilaterals	5th (grade 3)	5th (grade 3)	Identify the properties of quadrilaterals.
32	21/05/2018	PROBLEM-SOLVING ACTIVITIES		RICH TASK 13: HOW MANY QUADRILATERALS?	

33	04/06/2018	REVISION FOR END OF YEAR TESTS			
34	11/06/2018	REVISION FOR END OF YEAR TESTS			
35	18/06/2018				
36	25/06/2018	END OF YEAR TESTS: NON-CALCULATOR & CALCULATOR			
37	02/07/2018	FINANCIAL MATHS			
38	09/07/2018	FINANCIAL MATHS			
39	16/07/2018	FEEDBACK FROM END OF YEAR TESTS			
40	23/07/2018	FEEDBACK FROM END OF YEAR TESTS			