

Wk.	YEAR 8		PI (LOW ATTAINING)		PI 2 and PI 3		LEARNING OUTCOME
	TERM	UNIT / LESSON	STEPS (GRADES) FROM ...	STEPS (GRADES) FROM ...	STEPS (GRADES) FROM ...	STEPS (GRADES) FROM ...	
	AUTUMN	1 Number properties and calculations	3rd (grade 2)	5th (grade 3)			
1	04/09/2017	1.1 Adding and subtracting with larger numbers	4th (grade 2)	4th (grade 2)			Add and subtract larger numbers.
2	11/09/2017	1.2 More calculations	3rd (grade 2)	4th (grade 2)			Multiply larger numbers. Use brackets.
3	18/09/2017	RICK TASK 24: NIM					
		1.3 Negative numbers	3rd (grade 2)	4th (grade 2)			Add and subtract with negative numbers. Multiply and divide negative numbers.
		1.4 STEM: Writing ratios	4th (grade 2)	5th (grade 3)			Work with ratios.
		1.5 Using ratios to solve problems	4th (grade 2)	5th (grade 3)			Find equivalent ratios. Solve simple word problems involving ratio.
		THEMED TASKS: RECIPES					Understand the relationship between ratio and proportion.
		1.6 Multiplicative reasoning	5th (grade 3)	5th (grade 3)			Use proportion to solve simple problems.
4	25/09/2017	PROBLEM-SOLVING ACTIVITIES					
	AUTUMN	2 Shapes and measures in 3D	3rd (grade 2)	5th (grade 3)			TASK 29: 24 CUBES
5	02/10/2017	2.1 3D solids	3rd (grade 2)	5th (grade 3)			Recognise and name 3D shapes. Count faces edges and vertices.
6	09/10/2017	INVESTIGATION: PILE 'EM HIGH (OCR)					Deduce properties of 3D shapes from 2D representations.
		2.2 Nets of 3D solids	3rd (grade 2)	4th (grade 2)			Identify nets of 3D solids including cubes and cuboids. Draw nets of 3D solids using a ruler and protractor.
		INVESTIGATION: MATCHSTICKS MODELS (OCR)					
		2.3 Surface area	4th (grade 2)	4th (grade 2)			Calculate the surface area of cubes and cuboids.
		2.4 Volume	4th (grade 2)	5th (grade 3)			Find the volume of a cube or cuboid by counting cubes.
		INVESTIGATION: THE FENCING PROBLEM					Know the formula for calculating the volume of a cube or cuboid.
		2.5 Working with measures	4th (grade 2)	4th (grade 2)			Solve problems involving units of length, area and capacity.
		INVESTIGATION: THE OPEN BOX PROBLEM					Convert between cm ³ and litres.
7	16/10/2017	PROBLEM-SOLVING; REVISION					HALF TERM TEST
	AUTUMN	3 Statistics	3rd (grade 2)	5th (grade 3)			
	PI 3	PI 3: 3.1 Planning a survey	3rd (grade 2)	5th (grade 3)			Plan and collect data.
	PI 2	3.1 Data collection sheets	4th (grade 2)	5th (grade 3)			Design a data collection sheet. Group data into equal class intervals.
8	30/10/2017	3.2 Interpreting bar charts	4th (grade 2)	5th (grade 3)			Interpret complex bar charts.
9	06/11/2017	3.3 Drawing bar charts	4th (grade 2)	4th (grade 2)			Draw bar charts for more than one set of data.
		3.4 STEM: Pie charts	4th (grade 2)	4th (grade 2)			Interpret pie charts.
10	13/11/2017	PROBLEM-SOLVING ACTIVITIES					
	AUTUMN	4 Expressions and equations	3rd (grade 2)	5th (grade 3)			
11	20/11/2017	4.1 Simplifying expressions	4th (grade 2)	4th (grade 2)			Simplify expressions by collecting like terms.
12	27/11/2017	4.2 Functions	4th (grade 2)	4th (grade 2)			Find outputs and inputs of function machines.
		RICK TASK 25: FUNCTION MACHINES					Construct functions.
		4.3 Solving equations	4th (grade 2)	5th (grade 3)			Solve simple equations and check the solution is correct. Understand the difference between an expression and an equation, and identify the unknown in an equation.
		RICH TASK 27: SOLVING LINEAR EQUATIONS					
		4.4 Using brackets	3rd (grade 2)	4th (grade 2)			Use brackets with numbers and letters.
13	04/12/2017	PROBLEM-SOLVING ACTIVITIES					
14	11/12/2017	PROBLEM-SOLVING; REVISION					RICH TASK 7: FRACTION ARRANGEMENT END OF TERM TEST

TERM	UNIT / LESSON	STEPS (GRADES) FROM ...	STEPS (GRADES) FROM ...	LEARNING OUTCOME	
					TERM
SPRING	5 Decimal calculations	4th (grade 2)	5th (grade 3)		
15	01/01/2018	5.1 Adding and subtracting decimals	4th (grade 2)	5th (grade 3)	Add and subtract decimal numbers.
16	08/01/2018	5.2 Multiplying decimals	4th (grade 2)	5th (grade 3)	Multiply decimals.
		5.3 Ordering and rounding decimals	5th (grade 3)	5th (grade 3)	Round decimals.
		5.4 STEM: Problem-solving with decimals	4th (grade 2)	5th (grade 3)	Order decimals. Solve problems involving decimals.
17	15/01/2018	PROBLEM-SOLVING ACTIVITIES			
SPRING	6 Angles	3rd (grade 2)	5th (grade 3)	RICH TASK 19: FIRE HYDRANTS	
18	22/01/2018	6.1 Measuring and drawing angles	3rd (grade 2)	4th (grade 2)	Use a protractor to measure and draw obtuse and reflex angles. Estimate the size of reflex angles.
19	29/01/2018	RICH TASK 20: DIAGONALS OF RECTANGLES			
INVESTIGATION: GRAZING (OCR)	6.2 Vertically opposite angles	4th (grade 2)	4th (grade 2)	Use vertically opposite angles.	
	6.3 Angles in triangles	3rd (grade 2)	4th (grade 2)	Work out the size of unknown angles in a triangle.	
	6.4 Drawing triangles accurately	4th (grade 2)	5th (grade 3)	Accurately draw triangles using a ruler and protractor.	
	6.5 Designing nets	5th (grade 3)	5th (grade 3)	Accurately draw a net of a 3D shape. Investigate the sides of a right-angled triangle.	
	INVESTIGATION: ROUTES ON POLYHEDRA (OCR)				
20	05/02/2018	PROBLEM-SOLVING; REVISION			HALF TERM TEST
SPRING	7 Number properties	3rd (grade 2)	5th (grade 3)		
	7.1 Squares, cubes and roots	4th (grade 2)	5th (grade 3)	Calculate squares and square roots, mentally and using a calculator.	
21	19/02/2018				
22	26/02/2018	RICK TASK 20: LEAP FROG			Calculate cubes and cube roots, mentally and using a calculator.
		7.2 Calculating with brackets and indices	3rd (grade 2)	5th (grade 3)	Carry out calculations involving brackets and square numbers. Use the brackets keys on a calculator. Use index notation.
		7.3 LCM and HCF	4th (grade 2)	4th (grade 2)	Find the factor pairs of any whole number. Use the lowest common multiple (LCM) and highest common factor (HCF) to solve problems.
		7.4 Prime factor decomposition	4th (grade 2)	4th (grade 2)	Find the prime factor decomposition of a number less than 100. Use the lowest common multiple (LCM) and highest common factor (HCF) to solve problems.
23	05/03/2018	PROBLEM-SOLVING ACTIVITIES			
SPRING	8 Sequences	3rd (grade 2)	5th (grade 3)	INVESTIGATION: TOWERS OF HANOI	
24	12/03/2018	8.1 Generating sequences	3rd (grade 2)	3rd (grade 2)	Recognise, describe and continue number sequences. Find and use pattern and term-to-term rules.
25	19/03/2018	RICH TASK 17: PASCAL'S TRIANGLE			
		8.2 Extending sequences	3rd (grade 2)	5th (grade 3)	Use the term-to-term rule to work out terms in a sequence. Recognise an arithmetic sequence. Describe sequences arising in real life.
		RICH TASK 21: T-TOTAL			
		INVESTIGATION: LINES, REGIONS & CROSS-OVERS			
		8.3 Special sequences	3rd (grade 2)	5th (grade 3)	Describe and continue special sequences. Recognise a geometric sequence.
		INVESTIGATION: SPIRAL BOUND			
		8.4 Position-to-term rules	4th (grade 2)	5th (grade 3)	Generate terms of a sequence using the position-to-term rule.
		8.5 Finding the nth term	5th (grade 3)	5th (grade 3)	Find the nth term of a simple sequence.
26	26/03/2018	PROBLEM-SOLVING; REVISION			END OF TERM TEST

STEPS REFER TO THE 12-STEP PEARSON MODEL					
TERM	UNIT / LESSON	STEPS (GRADES) FROM ...	STEPS (GRADES) FROM ...	LEARNING OUTCOME	
SUMMER	9 Fractions and percentages	3rd (grade 2)	5th (grade 3)		
27	16/04/2018	9.1 Comparing fractions	3rd (grade 2)	4th (grade 2)	Compare fractions.
28	23/04/2018				Simplify fractions. Identify equivalent fractions.
		9.2 Fractions of amounts	4th (grade 2)	5th (grade 3)	Calculate with fractions mentally. Calculate fractions of quantities. Multiply a fraction by a whole number.
		9.3 Adding and subtracting fractions	4th (grade 2)	5th (grade 3)	Add and subtract fractions.
		9.4 Fractions and percentages	3rd (grade 2)	4th (grade 2)	Write a number as a fraction of another number. Change between fractions and percentages.
		9.5 Calculating percentages	3rd (grade 2)	3rd (grade 2)	Calculate percentages.
		9.6 STEM: Percentages and proportion	4th (grade 2)	5th (grade 3)	Compare proportions using percentages.
29	30/04/2018	PROBLEM-SOLVING ACTIVITIES			
	SUMMER	10 Probability	3rd (grade 2)	5th (grade 3)	
30	07/05/2018	10.1 The language of probability	3rd (grade 2)	4th (grade 2)	Use the language of probability. Write probabilities as fractions, decimals and percentages.
31	14/05/2018				Use a probability scale with words and numbers. Find all the possible outcomes of an event. Use equally likely outcomes to calculate probabilities. Learn and use probability notation. Calculate the probability of an event not happening. Find all the possible outcomes of two simple events.
		10.2 Outcomes	4th (grade 2)	4th (grade 2)	
		10.3 Probability calculations	4th (grade 2)	5th (grade 3)	
		INVESTIGATION: LOTTERY NUMBERS			
		10.4 Experimental probability	4th (grade 2)	5th (grade 3)	Use data from an experiment to estimate probabilities. Collect data from an experiment, and make calculations based on results.
		10.5 FINANCE: Comparing probabilities	5th (grade 3)	5th (grade 3)	Compare and interpret probabilities.
32	21/05/2018	PROBLEM-SOLVING; REVISION			
	28/05/2018	HALF TERM			
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			