

YEAR 7		MID-ATTAINING			Theta 1
Wk.	TERM	UNIT / LESSON	STEPS FROM ...	STEPS TO ...	OBJECTIVES
1	04/09/2017	1 Analysing and displaying data	2nd (grade 1)	5th (grade 3)	
2	11/09/2017	1.1 Mode, median and range	2nd (grade 1)	4th (grade 2)	Find the mode of a set of data, numerical and non-numerical. Find the median of a set of data (odd and even number of values).
3	18/09/2017	INVESTIGATION: NOUGHTS & CROSSES			Find the range of a set of data.
		1.2 Displaying data	2nd (grade 1)	3rd (grade 2)	Read and draw pictograms, bar charts and bar-line charts. Read and construct tally charts and frequency tables. Find the mode and range from a chart or table.
		1.3 Grouping data	2nd (grade 1)	4th (grade 2)	Read and construct grouped tally charts and frequency tables. Read and construct grouped bar charts for discrete and continuous data.
		INVESTIGATION: KS3 DATA COLLECTION			Find the modal class from a bar chart or frequency table.
		1.4 Averages and comparing data	3rd (grade 2)	4th (grade 2)	Calculate the mode, median, mean and range of a set of values. Compare two sets of data using an average and the range.
		1.5 Line graphs and more bar charts	3rd (grade 2)	5th (grade 3)	Read and draw a line graph. Read and draw a dual bar chart. Read and draw a compound bar chart.
		1.6 Spreadsheets	2nd (grade 1)	4th (grade 2)	Enter data into a spreadsheet program. Use a spreadsheet to calculate the mode, median, mean and range. Use a spreadsheet to draw bar charts, dual bar charts, compound bar charts, grouped bar charts and line graphs.
4	25/09/2017	PROBLEM-SOLVING ACTIVITIES			RICH TASK 6: AVERAGING IT OUT
		2 Number skills	2nd (grade 1)	5th (grade 3)	
5	02/10/2017	2.1 Mental maths	3rd (grade 2)	4th (grade 2)	Know and use the priority of operations and laws of arithmetic.
6	09/10/2017	RICH TASK 14: WHY IS 1089 SO SPECIAL?			Recall multiplication facts up to 10×10
		RICH TASK 16: HOW MANY POLAR BEARS?			Multiply and divide by 10, 100, 1000
		2.2 Addition and subtraction	2nd (grade 1)	4th (grade 2)	Round whole numbers to the nearest 10, 100, 1000 Check answers using estimation.
		RICH TASK 12: MULTIPLICATION REDUCTION			Add and subtract whole numbers using written methods.
		2.3 Multiplication	2nd (grade 1)	4th (grade 2)	Multiply whole numbers using a written method.
		2.4 Division	3rd (grade 2)	4th (grade 2)	Divide whole numbers using a written method. Check answers using inverse operations.
		2.5 Finance: Time and money	2nd (grade 1)	5th (grade 3)	Round decimals to the nearest whole number. Interpret a calculator display.
		INVESTIGATION: OPPOSITE CORNERS			Solve problems involving time and money using a calculator.
		INVESTIGATION: PARTITIONING			
		2.6 Negative numbers	3rd (grade 2)	4th (grade 2)	Order positive and negative numbers. Add and subtract positive and negative numbers. Begin to multiply with negative numbers.
		RICH TASK 2: FACTORS & MULTIPLES GAME			
		2.7 Factors, multiples and primes	2nd (grade 1)	4th (grade 2)	Identifying and understanding factors, multiples and prime numbers.
		2.8 Square and triangle numbers	3rd (grade 2)	4th (grade 2)	Recognise and use square numbers, square roots and triangle numbers.

7	16/10/2017	PROBLEM-SOLVING; REVISION			HALF TERM TEST
	AUTUMN	3 Expressions, functions and formulae	2nd (grade 1)	4th (grade 2)	
8	30/10/2017	3.1 Functions	2nd (grade 1)	3rd (grade 2)	Find outputs of simple functions written in words and using symbols.
9	06/11/2017	RICK TASK 25: FUNCTION MACHINES			Describe simple functions in words.
		3.2 Simplifying expressions 1	3rd (grade 2)	4th (grade 2)	Simplify simple algebraic expressions by collecting like terms. Use arithmetic operations with algebra.
		3.3 Simplifying expressions 2	3rd (grade 2)	4th (grade 2)	Use brackets with numbers and letters. Simplify more complicated expressions by collecting like terms.
		3.4 Writing expressions	4th (grade 2)	4th (grade 2)	Write expressions from word descriptions using addition, subtraction and multiplication. Write expressions to represent function machines.
		3.5 STEM: Substituting into formulae	3rd (grade 2)	4th (grade 2)	Substitute positive integers into simple formulae written in words. Substitute integers into formulae written in letter symbols.
		3.6 Writing formulae	4th (grade 2)	4th (grade 2)	Identify variables and use letter symbols. Write simple formulae using letter symbols. Identify formulae and functions. Identify the unknowns in a formula and a function.
10	13/11/2017	PROBLEM-SOLVING ACTIVITIES			
	AUTUMN	4 Decimals and measures	2nd (grade 1)	5th (grade 3)	
11	20/11/2017	4.1 Decimals and rounding	2nd (grade 1)	4th (grade 2)	Measure and draw lines to the nearest millimetre.
12	27/11/2017				Write decimals in order of size. Round decimals to the nearest whole number and to one decimal place. Round decimals to make estimates and approximations of calculations.
		4.2 Length, mass and capacity	3rd (grade 2)	4th (grade 2)	Compare measurements by converting them into the same units. Solve simple problems involving units of measurement in the context of length. Convert between metric units of length, mass and capacity.
		4.3 Scales and coordinates	3rd (grade 2)	5th (grade 3)	Read scales on a range of measuring equipment. Interpret the display of a calculator in different contexts. Interpret metric measures displayed on a calculator. Plot and read coordinates in all four quadrants.
		4.4 Working with decimals mentally	3rd (grade 2)	4th (grade 2)	Multiply decimals mentally. Check a result by considering whether it is of the right order of magnitude. Understand where to position the decimal point by considering equivalent calculations.
		4.5 Working with decimals	3rd (grade 2)	5th (grade 3)	Add and subtract decimals. Multiply and divide decimals by single-digit whole numbers.
		4.6 Perimeter	2nd (grade 1)	5th (grade 3)	Work out the perimeters of shapes. Solve perimeter problems.
		4.7 Area	2nd (grade 1)	4th (grade 2)	Find areas by counting squares. Calculate the areas of squares and rectangles. Calculate the areas of shapes made from rectangles. Solve problems involving area.
		4.8 STEM: More units	3rd (grade 2)	5th (grade 3)	Choose suitable units to estimate length and area. Use units of measurement to solve problems. Use metric and imperial units.
13	04/12/2017	PROBLEM-SOLVING ACTIVITIES			
14	11/12/2017	PROBLEM-SOLVING; REVISION			END OF TERM TEST