	YEAR 9	Edexcel GCSE (9-1) Mathematics		Foundation	
	TERM	UNIT / LESSON	STEPS (GRADES) FROM	STEPS (GRADES) FROM	LEARNING OUTCOME
	AUTUMN PI 3	1 Number calculations 4 Fractions, decimals and percentages	4th (grade 2)	6th (grade 3)	
Wk.	PI 3	1.1 Adding and subtracting	5th (grade 3)	5th (grade 3)	Solve problems by adding and subtracting.
1	04/09/2017				Add and subtract decimal numbers.
2	11/09/2017	1.2 Multiplying	5th (grade 3)	6th (grade 3)	Multiply numbers including decimals.
3	18/09/2017				Use multiplicative reasoning to multiply numbers.
4	25/09/2017	1.3 Dividing	4th (grade 2)	5th (grade 3)	Divide by a decimal number.
		1.4 Multiplying and dividing negative numbers	4th (grade 2)	5th (grade 3)	Multiply and divide with negative numbers.
		1.5 Squares, cubes and roots	5th (grade 3)	6th (grade 3)	Know all square numbers to 16^2 Find all positive and negative square roots of square numbers. Use mental methods to find cubes and cube roots. Work out calculations involving squares and brackets.
		1.7 Calculations	4th (grade 2)	6th (grade 3)	Work out calculations involving brackets, squares, cubes and square roots. Estimate answers.
		4.2 Recurring decimals	5th (grade 3)	6th (grade 3)	Write recurring decimals as fractions.
		UNIT 1(A) TEST			
	AUTUMN	1 Number	2nd (grade 1)	7th (grade 4)	
5	02/10/2017	1.1 Calculations	4th (grade 2)	4th (grade 2)	Use priority of operations with positive and negative numbers.
6	09/10/2017				Simplify calculations by cancelling. Use inverse operations.
7	16/10/2017	1.2 Decimal numbers	3rd (grade 2)	7th (grade 4)	Round to a given number of decimal place. Multiply and divide decimal numbers.
		1.3 Place value	2nd (grade 1)	6th (grade 3)	Write decimal numbers of millions. Round to a given number of significant figures. Estimate answers to calculations. Use one calculation to find the answer to another.
		1.4 Factors and multiples	3rd (grade 2)	7th (grade 4)	Recognise 2-digit prime numbers. Find factors and multiples of numbers. Find common factors and common multiples of two numbers. Find the HCF and LCM of two numbers by listing.
		1.5 Squares, cubes and roots	4th (grade 2)	7th (grade 4)	Find square roots and cube roots. Recognise powers of 2, 3, 4 and 5. Understand surd notation on a calculator.
		1.6 Index notation	4th (grade 2)	7th (grade 4)	Find square roots and cube roots. Recognise powers of 2, 3, 4 and 5. Understand surd notation on a calculator.
		1.7 Prime factors	7th (grade 4)	7th (grade 4)	Write a number as the product of its prime factors. Use prime factor decomposition and Venn diagrams to find the HCF and LCM.
		UNIT 1(B) TEST			

	23/10/2017	HALF TERM			
	AUTUMN	2 Algebra	3rd (grade 2)	7th (grade 4)	
8	30/10/2017	2.1 Algebraic expressions	3rd (grade 2)	5th (grade 3)	Use correct algebraic notation. Write and simplify expressions.
9	06/11/2017				
10	13/11/2017	2.2 Simplifying expressions	4th (grade 2)	7th (grade 4)	Use the index laws. Multiply and divide expressions.
		2.3 Substitution	4th (grade 2)	7th (grade 4)	Substitute numbers into expressions.
		2.4 Formulae	5th (grade 3)	7th (grade 4)	Recognise the difference between a formula and an expression. Substitute numbers into a simple formula.
		2.5 Expanding brackets	4th (grade 2)	7th (grade 4)	Expand brackets. Simplify expressions with brackets. Substitute numbers into expressions with brackets and powers.
		2.6 Factorising	6th (grade 3)	7th (grade 4)	Recognise factors of algebraic terms. Factorise algebraic expressions.
		2.7 Using expressions and formulae	5th (grade 3)	7th (grade 4)	Use the identity symbol ≡ and the not equals symbol ≠ Write expressions and simple formulae to solve problems. Use maths and science formulae.
		UNIT 2 TEST			
11	20/11/2017	REVISION & TEST	OFFICIAL COMBINED UNIT TESTS: 1 & 2		
	AUTUMN	3 Graphs, tables and charts	3rd (grade 2)	7th (grade 4)	
12	27/11/2017	3.1 Frequency tables	4th (grade 2)	6th (grade 3)	Designing tables and data collection sheets. Reading data from tables.
13	04/12/2017				
		3.2 Two-way tables	4th (grade 2)	6th (grade 3)	Use data from tables. Design and use two-way tables.
		3.3 Representing data	3rd (grade 2)	6th (grade 3)	Draw and interpret comparative and composite bar charts. Interpret and compare data shown in bar charts, line graphs and histograms.
		3.4 Time series	4th (grade 2)	5th (grade 3)	Plot and interpret time series graphs. Use trends to predict what might happen in the future.
		3.5 Stem and leaf diagrams	6th (grade 3)	6th (grade 3)	Construct and interpret stem and leaf and back-to-back stem and leaf diagrams.
		3.6 Pie charts	3rd (grade 2)	7th (grade 4)	Draw and interpret pie charts.
		3.7 Scatter graphs	6th (grade 3)	7th (grade 4)	Plot and interpret scatter graphs. Determine whether or not there is a relationship between sets of data.
		3.8 Line of best fit	6th (grade 3)	7th (grade 4)	Draw a line of best fit on a scatter graph.
		UNIT 3 TEST			Use the line of best fit to predict values.
14	11/12/2017	PROBLEM-SOLVING ACTIVITIES			

	TERM	UNIT / LESSON	STEPS (GRADES) FROM	STEPS (GRADES) FROM	LEARNING OUTCOME
	SPRING	4 Fractions and percentages	3rd (grade 2)	7th (grade 4)	
15	01/01/2018	4.1 Working with fractions	3rd (grade 2)	6th (grade 3)	Compare fractions.
16	08/01/2018				Add and subtract fractions.
17	15/01/2018				Use fractions to solve problems.
		4.2 Operations with fractions	4th (grade 2)	7th (grade 4)	Find a fraction of a quantity or measurement. Use fractions to solve problems.
		4.3 Multiplying fractions	4th (grade 2)	6th (grade 3)	Multiply whole numbers, fractions and mixed numbers. Simplify calculations by cancelling.
		4.4 Dividing fractions	5th (grade 3)	7th (grade 4)	Divide a whole number by a fraction. Divide a fraction by a whole number or a fraction.
		4.5 Fractions and decimals	3rd (grade 2)	5th (grade 3)	Convert fractions to decimals and vice versa. Use decimals to find quantities. Write one number as a fraction of another.
		4.6 Fractions and percentages	3rd (grade 2)	6th (grade 3)	Convert percentages to fractions and vice versa. Write one number as a percentage of another.
		4.7 Calculating percentages 1	4th (grade 2)	6th (grade 3)	Convert percentages to decimals and vice versa. Find a percentage of a quantity. Use percentages to solve problems. Calculate simple interest.
		4.8 Calculating percentages 2	4th (grade 2)	6th (grade 3)	Calculate percentage increases and decreases. Use percentages in real-life situations. Calculate VAT (value added tax).
		UNIT 4 TEST			
	SPRING	5 Equations, inequalities and sequences	3rd (grade 2)	7th (grade 4)	
18	22/01/2018	5.1 Solving equations 1	3rd (grade 2)	5th (grade 3)	Understand and use inverse equations. Rearrange simple linear equations. Solve simple linear equations.
19	29/01/2018				
20	05/02/2018				
		5.2 Solving equations 2	3rd (grade 2)	6th (grade 3)	Solve two-step equations.
		5.3 Solving equations with brackets	6th (grade 3)	7th (grade 4)	Solve linear equations with brackets. Solve equations with unknowns on both sides.
		5.4 Introducing inequalities	4th (grade 2)	7th (grade 4)	Use correct notation to show inclusive and exclusive inequalities. Solve simple linear inequalities. Write down whole numbers which satisfy an inequality. Represent inequalities on a number line.
		5.5 More inequalities	5th (grade 3)	7th (grade 4)	Solve two-sided inequalities.
		5.6 More formulae	3rd (grade 2)	7th (grade 4)	Substitute values into formulae and solve equations. Change the subject of a formula. Know the difference between an expression, an equation, a formula and an identity.
		5.7 Generating sequences	6th (grade 3)	7th (grade 4)	Recognise and extend sequences.
		5.8 Using the nth term of a sequence			Use the nth term to generate terms of a sequence. Find the nth term of an arithmetic sequence.
		UNIT 5 TEST			

	23/10/2017	HALF TERM			
21	19/02/2018	REVISION & TEST	OFFICIAL COMBINED UNIT TESTS: 3, 4 & 5		
	SPRING	6 Angles	3rd (grade 2)	8th (grade 5)	
22	26/02/2018	6.1 Properties of shapes	4th (grade 2)	5th (grade 3)	Solve geometric problems using side and angle properties of quadrilaterals.
23	05/03/2018				Identify congruent shapes.
24	12/03/2018	6.2 Angles in parallel lines	5th (grade 3)	6th (grade 3)	Understand and use the angle properties of parallel lines.
					Find missing angles using corresponding and alternate angles.
		6.3 Angles in triangles	3rd (grade 2)	6th (grade 3)	Solve angle problems in triangles.
					Understand angle proofs about triangles.
		6.4 Exterior and interior angles	4th (grade 2)	7th (grade 4)	Calculate the interior and exterior angles of regular polygons.
		6.5 More exterior and interior angles	4th (grade 2)	8th (grade 5)	Calculate the interior and exterior angles of polygons. Explain why some polygons fit together and some others do not
		6.6 Geometrical patterns	6th (grade 3)	8th (grade 5)	Solve angle problems using equations. Solve geometrical problems showing reasoning.
		UNIT 6 TEST			
	SPRING	7 Averages and range	2nd (grade 1)	7th (grade 4)	
25	19/03/2018	7.1 Mean and range	3rd (grade 2)	6th (grade 3)	Calculate the mean from a list and from a frequency table. Compare sets of data using the mean and range.
26	26/03/2018	7.2 Mode, median and range	4th (grade 2)	6th (grade 3)	Find the mode, median and range from a stem and leaf diagram. Identify outliers. Estimate the range from a grouped frequency table.
		7.3 Types of average	2nd (grade 1)	6th (grade 3)	Recognise the advantages and disadvantages of each type of average. Find the modal class. Find the median from a frequency table.
		7.4 Estimating the mean 7.5 Sampling	7th (grade 4) 6th (grade 3)	7th (grade 4) 6th (grade 3)	Estimate the mean of grouped data. Understand the need for sampling. Understand how to avoid bias.
		UNIT 7 TEST			

STEPS REFER TO THE 12-STEP PEARSON MODEL

	TERM	UNIT / LESSON	STEPS (GRADES) FROM	STEPS (GRADES) FROM	LEARNING OUTCOME
	SUMMER	8 Perimeter, area and volume 1	4th (grade 2)	8th (grade 5)	
27	16/04/2018	8.1 Rectangles, parallelograms and triangles	6th (grade 3)	6th (grade 3)	Calculate the perimeter and area of rectangles, parallelograms and triangles.
28	23/04/2018				Estimate lengths, areas and costs.
29	30/04/2018				Calculate a missing length, given the area.
		8.2 Trapezia and changing units	6th (grade 3)	6th (grade 3)	Find a fraction of a quantity or measurement. Use fractions to solve problems.
		8.3 Area of compound shapes	6th (grade 3)	6th (grade 3)	Calculate the perimeter and area of shapes made from triangles and rectangles. Calculate areas in hectares, and convert between ha and m2.
		8.4 Surface area of 3D solids	6th (grade 3)	7th (grade 4)	Calculate the surface area of a cuboid. Calculate the surface area of a prism.
		8.5 Volume of prisms	4th (grade 2)	7th (grade 4)	Calculate the volume of a cuboid. Calculate the volume of a prism.
		8.6 More volume and surface area	6th (grade 3)	8th (grade 5)	Solve problems involving surface area and volume. Convert between measures of volume.
		UNIT 8 TEST			
30	07/05/2018	REVISION & TEST	OFFICIAL COMBINED UNIT TESTS: 6, 7 & 8		
31	14/05/2018	REVISION FOR END OF YEAR TESTS			
32	21/05/2018	REVISION FOR END OF YEAR TESTS			

	29/05/2018	HALF TERM
33	04/06/2018	REVISION FOR END OF YEAR TESTS
34	11/06/2018	
35	18/06/2018	END OF YEAR TESTS: NON-CALCULATOR & CALCULATOR
36	25/06/2018	MAYFIELD HIGH INVESTIGATION
37	02/07/2018	MAYFIELD HIGH INVESTIGATION
38	09/07/2018	FEEDBACK FROM END OF YEAR TESTS
39	16/07/2018	FEEDBACK FROM END OF YEAR TESTS
40	23/07/2018	FUNCTIONAL SKILLS MATHS