

Year 7 SOW - Foundation

Y7 Foundation -HT1					
Chapter	Lesson	Learning objective	R	A	G
Using numbers	Addition and subtraction - Mental and written strategies	Read and write whole numbers in figures and words.			
		Know what each digit represents			
		Find pairs of whole numbers with a sum of 10, 20 and 100			
		Add several single-digit numbers.			
		Add/subtract any pair of two-digit numbers.			
		Count on/back in equal steps (25, 100, 0.1, 0.2)			
		use a number line to add two numbers			
		Give one or more numbers lying between two others			
		use a number line to find the difference between two numbers			
		Extend written methods to addition and subtraction of two integers less than 10 000.			
		Approximate first and use informal pencil and paper methods to support, record or explain addition and subtraction.			
		Use symbols \geq , \leq , $<$ and $>$			
		Use the vocabulary of comparing, ordering, estimating and approximating.			
		Order positive and negative integers (number line, temperature)			
	Develop calculator skills and use a calculator effectively, interpret the display in different contexts				
	Multiplication and Division-Mental and written strategies	Recall multiplication facts to 10 x 10 and quickly derive associated division facts			
		Recognise squares to at least 12 x 12.			
		Use repeated doubling and halving; double any two-digit number			
		Partition to multiply mentally, for example, 46 x 7			
	Multiplying and dividing by 10, 100 and 1000	To multiply and divide whole numbers by 10, 100 and 1000			
Extend written methods to HTU x U and U.t x U.					
Develop calculator skills and use a calculator effectively, interpret the display in different contexts					
Know and apply tests of divisibility of 2, <u>3</u> , 5, 10 <u>or 100</u>					
Extend written methods to HTU ÷ U (whole number remainder)					
Develop calculator skills and use a calculator effectively, interpret the display in different contexts					
Use all four operations to solve money or 'real life' word problems					
Using numbers in real life	The 12-hour and 24-hour clocks	To read and use 12-hour and 24-hour clocks			
		To convert between the 12-hour and 24-hour systems			
	The calendar	To read and use calendars			
Negative numbers	Negative numbers	To use a number line to order positive and negative whole numbers			
		To use a number line to calculate with negative numbers			
		Calculate temperature rises across 0°C.			
		To carry out additions and subtractions involving negative numbers			
		To solve problems involving negative temperatures			
Order of operations	BIDMAS	To use the conventions of BIDMAS to carry out calculations			
	Multiplication	To choose a written method for multiplying two numbers together			
		To use written methods to carry out multiplications accurately			
	Long and short division	To choose a written method for dividing one number by another			
		To use written methods to carry out divisions accurately			
	Calculations with measurements	To convert between common metric units			
		To use measurements in calculations			
		To recognise and use appropriate metric units			
Review					

Y7 Foundation -HT2					
Chapter	Lesson	Learning objective	R	A	G
Working with Decimal numbers	Place value	Know what the digits of a decimal number stand for			
	Multiplying and dividing by 10, 100 and 1000	To multiply and divide decimal numbers by 10, 100 and 1000			
	Ordering decimals	To order decimal numbers according to size			
	Adding and subtracting decimals	To add and subtract decimal numbers			
	<u>Multiplying and dividing decimals</u>	To be able to multiply and divide decimal numbers by any whole number			
Rounding / Estimation	Rounding	To round numbers to the nearest whole number, 10, 100 or 1000			
		To round numbers to 1 dp			
	Estimates	To estimate calculations in order to spot possible errors			
Perimeter and area	Length and perimeter	To measure and draw lines			
	Area	To work out the perimeter of a shape			
		To work out the area of a shape by counting squares			
		To work out the area of a rectangle			
Review					
Y7 Foundation -HT3					
Chapter	Lesson	Learning objective	R	A	G
Expressions	Expressions and substitution	To use algebra to write simple expressions			
		To substitute numbers into expressions / formulae			
	Simplifying expressions	To be able to simplify simple expressions			
Multiples and factors	Multiples	To understand multiples and find the lowest common multiple			
	Factors	To understand factors and find the highest common factor			
	Prime numbers	To understand what prime number is			
Sequences	Function machines	To use function machines to generate inputs and outputs			
	Sequences and rules	To recognise, describe and write down sequences that are based on a simple rule			
	Finding terms in patterns	To find missing terms in a sequence			
	The square numbers	To introduce the sequence of square numbers			
Equations	Finding unknown numbers	To find missing numbers in simple calculations			
	Solving equations	To understand what an equation is			
		To solve equations involving one operation			
		To solve equations involving two operations using function machines			
Review					

Y7 Foundation -HT4					
Chapter	Lesson	Learning objective	R	A	G
Coordinates and graphs	Coordinates	To know how to plot point using four quadrants To plot points and connect them with straight lines			
	Graphs from the real world	To learn how graphs can be used to represent real-life situations			
Fractions	Fractions of a quantity	To shade a fraction of a shape To find a fraction of a quantity			
	Equivalent fractions	To find simple equivalent fractions To write fractions in their simplest form			
	Comparing fractions	To compare and order two fractions			
	Adding and subtracting fractions	To add and subtract fractions with the same denominator To add and subtract simple fractions with different denominators			
	<u>Mixed numbers and improper fractions</u>	To convert mixed numbers to improper fractions To convert improper fractions to mixed numbers			
	Percentages	Introduction of percentages	To understand what a percentage is To understand the equivalence between some simple fractions, decimals and percentages (FDP)		
Percentages of a quantity		To find simple percentages of a quantity without a calculator e.g 10%, 50%, 25%			
Percentages with a calculator		To use a calculator to find a percentage of a quantity			
<u>Percentage increases and decreases</u>		Simple percentage increase/decrease			
Review					
Y7 Foundation -HT5					
Chapter	Lesson	Learning objective	R	A	G
Ratio	Ratio	To introduce ratio notation To write a ratio as simply as possible To use ratios to find missing quantities			
Statistics	Mode, median and range	To understand the meaning of mode, median and range			
	<u>Mean</u>	<u>To calculate the mean of simple data</u>			
	Comparing data by median and range	To use the mean,median and range to compare data			
	Using a tally chart / frequency tables	To create and use a tally chart			
	Pictograms	To be able to use pictograms			
	Bar Charts	To read data from bar charts			
	Pie charts	To read data from pie charts, where the data is given in simple sectors			
Probability	Probability words	To learn and use words about probability			
	Probability scales	To learn about and use probability scales from 0 to 1 To work out probabilities based on equally likely outcomes			
Experimental probability		To learn about and understand experimental probability <u>To understand the difference between theoretical probability and experimental probability</u>			
Review					

Y7 Foundation -HT6					
Chapter	Lesson	Learning objective	R	A	G
Symmetry	Line symmetry	To recognise shapes that have reflective symmetry			
		To draw lines of symmetry on a shape			
	Reflections	To understand how to reflect a shape			
		To use a coordinate grid to reflect shapes			
	<u>Tessellations</u>	<u>To understand how to tessellate shapes</u>			
Angles	Properties of triangles and quadrilaterals	To understand and use the properties of triangles			
		To understand and use the properties of quadrilaterals			
		To calculate angles in a triangle			
	Measuring angles and drawing angles	Estimate size of angles			
		To know the different types of angles			
		To use a protractor to measure /draw angles			
	Calculating angles	To calculate angles at a point			
		To calculate angles on a line			
		To calculate vertically opposite angles			
3D shapes	3D shapes and nets	To be familiar with the names of 3D shapes and their properties			
		To know how to count the faces, vertices and edges on a 3D shape			
		To draw nets for a cuboid			
	Using nets to construct 3D shapes	To construct 3D shapes from nets			
Review					