

Year 8

Timing	Unit Title	Key Question	Knowledge	Assessing Understanding
Autumn	Factors and Multiples	Do you know how to use HCF and LCM to solve problems?	<ul style="list-style-type: none"> • Prime number and prime factorisation • HCF and LCM • Roots 	How understanding is assessed <ul style="list-style-type: none"> • by applying the theory to a range of questions and increasingly more complex situations • discussion in lessons, sample problems • homework and tests
	Approximation and Estimation	Can you round numbers to different degrees of accuracy?	<ul style="list-style-type: none"> • Rounding to decimal places • Rounding to significant figures • Estimation 	
	Algebraic Expressions, Formulae and Proof	Can you use algebraic expressions and formulae to model real world problems?	<ul style="list-style-type: none"> • Use of letters in algebra • Evaluation and simplification of algebraic expressions and formulae • Algebraic Expression in real world • Factorisation • Proof 	Skills <ul style="list-style-type: none"> • understanding of the concepts • numerical skills • algebraic skills • problem solving skills
	Equations and Inequalities	Can you solve worded problems by forming and solving equations?	<ul style="list-style-type: none"> • Solving equations with brackets and fractions • Forming and solving different types of equations in one variable • Inequality relationships • Solving simple inequalities 	Assessment Point information <ul style="list-style-type: none"> • classroom tests relevant to topics studied

Spring	Ratio, Rate and Speed	Do you know how to use ratios to solve problems?	<ul style="list-style-type: none"> • Integer Ratios including simplifying ratios and sharing in ratios • All kinds of ratio problems • Scale plans and maps • Rate and speed 	<p>How understanding is assessed</p> <ul style="list-style-type: none"> • by applying the theory to a range of questions and increasingly more complex situations • discussion in lessons, sample problems • homework and tests • UKMT Junior Maths Challenge <p>Skills</p> <ul style="list-style-type: none"> • understanding of the concepts • numerical skills • algebraic skills • problem solving skills <p>Assessment Point information</p> <ul style="list-style-type: none"> • classroom tests relevant to topics studied
	Percentages	Can you use decimal multiplier to solve percentage problems?	<ul style="list-style-type: none"> • Simple interest and reverse percentages • Percentage increase and decrease • Repeated percentage changes • 	
	Coordinates and Linear Functions	Can you understand the link between a linear function and its graph?	<ul style="list-style-type: none"> • Cartesian coordinate system • Introducing functions • Linear functions and their graphs • Gradients of linear graphs 	
	Number Patterns	Can you find the general term of a sequence?	<ul style="list-style-type: none"> • Number Patterns and Sequences • General term of a sequence 	

Summer	Angles in Quadrilaterals and Polygons	Do you know how to use interior and exterior angles of polygons to solve angle problems?	<ul style="list-style-type: none"> • Angles in quadrilaterals • Angles in polygons 	<p>How understanding is assessed</p> <ul style="list-style-type: none"> • by applying the theory to a range of questions and increasingly more complex situations • discussion in lessons, sample problems • homework and tests <p>Skills</p> <ul style="list-style-type: none"> • understanding of the concepts • numerical skills • algebraic skills • spatial awareness • problem solving skills <p>Assessment Point information</p> <ul style="list-style-type: none"> • exam relevant to topics studied
	Perimeter and Area of Parallelograms and Trapezia	Do you know how to find the area and the perimeter of a parallelogram or a trapezium?	<ul style="list-style-type: none"> • Area of parallelograms • Area of trapezia • Perimeter and area of composite shapes 	
	Volume and Surface Area of Prisms and Cylinders	Do you know how to find the volume and surface area of different prisms and cylinders?	<ul style="list-style-type: none"> • Views and nets of 3D shapes • Volume and surface area of prisms • Volume and surface area of cylinders • Composite solids 	
	Statistical Graphs	Do you know how to use different graphs and charts to represent data?	<ul style="list-style-type: none"> • Line graphs • Pie charts • Use and misuse of statistical graphs • Scatter graphs 	