

Year 9 Half term 1

Name:- _____

Teacher:- _____

Straight Line Graphs	comment	Sparx clip
Review: Lines parallel to the axes, $y = x$ and $y = -x$		M797, M932
Review: Using tables of values		M932
Compare gradients		M544
Compare intercepts		M544
Understand and use $y = mx + c$		M888
H. Write an equation in the form $y = mx + c$		
Find the equation of a line from a graph		M544
Interpret gradient and intercepts of real-life graphs		M771
H. Model real-life graphs involving proportion		M843
H. Explore perpendicular lines		

Forming and Solving Equations	comment	Sparx clip
Review: Solve one- and two-step equations and inequalities		M707, M509, M118
Review: Solve one- and two-step equations and inequalities with brackets		M509, M118
Inequalities with negative numbers		M118
Solve equations with unknowns on both sides		M554
Solve inequalities with unknowns on both sides		M732
Solve equations and inequalities in context		M957
Substitute into formulae and equations		M208
Rearrange formulae (one-step and two-step)		M184
H. Rearrange complex formulae including brackets and squares		M184

Testing Conjectures	comment	Sparx clip
Review: Factors, multiples and primes		M823, M322
Always, sometimes, never true; 'show that'		
Conjectures about number and with algebra		
Expand a pair of brackets		M960

Year 9 Half term 2**Name:-** _____**Teacher:-** _____

Three Dimensional Shapes	comment	Sparx clip
Know names of 2D and 3D shapes		M276
Recognise prisms including use of faces and vertices		M767
Accurate nets of cuboids and other 3D shapes		M518
Sketch and recognise nets of cuboids and other 3D shapes		M518
Plans and elevations		M229
Review: find the area of 2D shapes		M390, M610, M705, M231
Surface area of cubes and cuboids		M534
Surface area of triangular prisms		M661
Surface area of a cylinder		M936
Volume of cubes and cuboids		M765
Volume of other 3D shapes – prisms and cylinders		M722, M697
H. Explore volumes of cones, pyramids and spheres		

Constructions and Congruency	comment	Sparx clip
Review: draw and measure angles		M780, M331
Review: construct and interpret scale drawings		M112
Locus of a distance from a point or from a straight line/shape		M253
Locus equidistant from two points		M253
Construct a perpendicular bisector		M239
Construct a perpendicular from a point and to a point		M239
Locus of a distance from two lines		M253
Construct an angle bisector		M232
Review: construct triangles from given information		M565
Identify congruent figures		M124
Explore congruent triangles		M124
Identify congruent triangles		M124

Year 9 Half term 3**Name:-** _____**Teacher:-** _____

Numbers	comment	Sparx clip
Integers, real and rational numbers		
H. understand and use surds		U633, U338
Review: Work with directed numbers		M106, M288
Solve problems with integers and decimals		
Review: HCF and LCM		M227, M698
Review: Adding and subtracting fractions		M835
Review: Multiplying and dividing fractions		M157, M110
Solve problems with fractions		
Review: numbers in standard form		M719, M678

Using Percentages	comment	Sparx clip
Review: use the equivalence of fractions, decimals and percentages		M264
Review: calculate percentage increases and decreases		M476, M533
Review: Express a change as a percentage		
Solve a 'reverse' percentage problem		M528
Recognise and solve a percentage problem without a calculator		M437, M476
Review: Recognise and solve a percentage problem with a calculator		M905, M533
H. solve problems with a repeated percentage change		U988

Maths and Money	comment	Sparx clip
Solve problems with bills and bank statements		M901
Calculate simple interest		U533
Calculate compound interest		U332
Solve problems with Value Added Tax		M901
Calculate wages and taxes		M901
Solve problems with exchange rates		M478
Solve unit pricing problems		

Year 9 Half term 4**Name:-** _____**Teacher:-** _____

Deduction	comment	Sparx clip
Review: angles in parallel lines		M606
Solving angles problems using a chain of reasoning		M319
Angles problems with algebra		M319
Conjectures with angles		
Conjectures with shapes		
H. Link constructions and geometric reasoning		

Rotation and Translation	comment	Sparx clip
Identify the order of rotation of a shape		M523
Compare and contrast rotation symmetry with lines of symmetry		M523
Rotate a shape about a point on the shape		M910
Rotate a shape about a point not on the shape		M910
Translate points and shapes by a given vector		M139
Compare rotation and reflection of shapes		M290, M910
H. Find the result of a series of transformations		M881

Pythagoras' Theorem	comment	Sparx clip
Review: squares and square roots		M135
Identify the hypotenuse of a right-angled triangle		M677
Determine whether a triangle is right angled		M677
Calculate the hypotenuse of a right angled triangle		M677
Calculate missing sides in right angled triangles		M677
Use Pythagoras' theorem on coordinate axes		M677
Explore proofs of Pythagoras' theorem		
H. Use Pythagoras' theorem in 3D shapes		M147

Year 9 Half term 5

Name:- _____

Teacher:- _____

Enlargement and Similarity	comment	Sparx clip
Recognise enlargement and similarity		M377
Enlarge a shape by a positive integer scale factor		M178
Enlarge a shape by a positive integer scale factor from a point		M178
Enlarge a shape by a positive fractional scale factor		M178
H. Enlarge a shape by a negative scale factor		M178
Work out missing sides and angles in similar shapes		M324
H. solve problems with similar shapes		M324
H. explore ratios in right angled triangles		

Ratio and Proportion Problems	comment	Sparx clip
Review: solve problems with direct proportion		M478
Review: direct proportion and conversion graphs		M448
Solve problems with inverse proportion		U357
H. graphs of inverse relationships		M448
Review: solve ratio problems given the whole or a part		M525, M801
Solve 'best buy' problems		M681
H. solve problems with ratio and algebra		

Rates	comment	Sparx clip
Solve speed, distance and time problems without a calculator		U151
Solve speed, distance and time problems with a calculator		U151
Use distance-time graphs		M581, M551, M247
Solve problems with density, mass and volume		U910
Solve flow problems and their graphs		M751
Rates of change and their units		U256
H. convert compound units		

Year 9 Half term 6

Name:- _____

Teacher:-_____

Probability	comment	Sparx clip
Review: single event probability		M941, M938
Relative frequency		M332
Expected outcomes		M206
Independent events		M299
H. use tree diagrams		M299
H. use tree diagrams to solve 'without replacement' problems		M572
Use diagrams to work out probabilities		M718

Algebraic Representations	comment	Sparx clip
Draw and interpret quadratic graphs		U989
Interpret other graphs including reciprocal and piece-wise		U980, U593
H. investigate graphs of simultaneous equations		M658
Represent inequalities on a number line		M384
Represent inequalities on a graph		U747

[illegible]