

**Culcheth High School Key Stage 3 Curriculum Map 2021 - 2022**

**Subject:** Mathematics Year 9, sets 1-4

**Exam Board:** White Rose Maths



**CULCHETH  
HIGH SCHOOL**  
THE BEST THAT WE CAN BE

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Key Concepts	Reasoning with Algebra	Constructing in 2 and 3 Dimensions	Reasoning with Number	Reasoning with Geometry	Reasoning with Proportion	Representations and Revision
Themes	Straight Line Graphs – Finding the gradient of a line Write an equation in the form $y = mx + c$ Find the equation of a line from a graph  Forming and Solving Equations – Solve equations with unknown on both sides Solve inequalities with unknowns on both sides Rearrange formulae  Testing Conjectures – Expand a pair of binomials Conjectures with algebra Explore the 100 grid	Three Dimensional Shapes – The surface area of shapes Plans and elevations Volume of shapes  Constructions – Construct an angle bisector Locus of distance from a point Construct a perpendicular bisector  Congruency – Identify congruent figures Explore congruent triangles Identify congruent triangles	Numbers – Integers, real and rational numbers Solve problems with integers Solve problems with fractions  Using Percentages – Solve reverse percentage problems Express a change as a percentage Recognise and solve percentage problems  Maths and Money - Calculate wages and taxes Solve problems with exchange rates Solve unit pricing problems	Deduction – Angle problems with algebra Conjectures with angles Conjectures with shapes  Rotations – Rotate a shape about a point on a shape Rotate a shape about a point, not on a shape  Translations – Translate points and shapes by a given vector Find the result of a series of transformations  Pythagoras' Theorem –	Enlargement – Enlarge a shape by a positive integer scale factor Enlarge a shape by a negative scale factor Similarity – Work out missing sides and angles in a pair of given similar shapes Solve problems with similar shapes Ratio – Solve problems involving ratio and algebra Solve ratio problems given the whole or a part Proportion – Solve problems with inverse proportion Graphs of inverse relationships Rates -	Probability – Expected outcomes Independent events Use diagrams to work out probabilities  Algebraic Representation – Interpret graphs, including reciprocal and piecewise Represent inequalities Draw and interpret quadratic graphs

				Identify the hypotenuse of a right-angled triangle Explore proofs of Pythagoras' Theorem	Rates of change and their units Solve speed, distance and time problems with a calculator	
<b>Writing whole school literacy focus</b>	Literacy based problem-solving questions	Literacy based problem-solving questions	Literacy based problem-solving questions	Literacy based problem-solving questions	Literacy based problem-solving questions	Literacy based problem-solving questions
<b>Spiritual, Moral, Social and Cultural theme (SMSC) Fundamental British Values</b>	The naturally inquisitive nature of maths supports decision making, SMSC and FBV will be addressed through the use of OFQUAL approved past paper questions	The naturally inquisitive nature of maths supports decision making, SMSC and FBV will be addressed through the use of OFQUAL approved past paper questions	The naturally inquisitive nature of maths supports decision making, SMSC and FBV will be addressed through the use of OFQUAL approved past paper questions	The naturally inquisitive nature of maths supports decision making, SMSC and FBV will be addressed through the use of OFQUAL approved past paper questions	The naturally inquisitive nature of maths supports decision making, SMSC and FBV will be addressed through the use of OFQUAL approved past paper questions	The naturally inquisitive nature of maths supports decision making, SMSC and FBV will be addressed through the use of OFQUAL approved past paper questions
<b>Key Assessment Focuses, suggested Assessments and Feedback week</b>	Week 7 45-minute QMA on Autumn Term topics	Week 14 45-minute QMA on topics covered to date	Week 17 45-minute QMA on topics covered to date	Week 25 45-minute QMA on topics covered to date	Week 32 45-minute QMA on topics covered to date	Week 35 45-minute QMA on topics covered to date
<b>Special Events</b>						
<b>Possible Visits</b>						