Rainford High School – Department: KS3 Maths

	Year 7 Curriculum		
Term	**Term 1**	**Term 2**	**Term 3**
Topics	Directed Number Sequences Algebraic Notation Equality & Equivalence Place Value & Ordering Numbers FDP Equivalence	Addition & Subtraction Problems Multiplication & Division Problems Fractions & Percentages of amounts Addition & Subtraction of fractions Measuring lines and angles	2D Shapes & Constructions Developing geometrical reasoning Developing number sense Sets, tables & Probability Prime Numbers & Proof
Essential knowledge, skills and understanding	• Representing and order directed numbers. • Add, subtract, multiply and divide directed numbers • Understand order of operations • Describe and continue sequences • Represent sequences in multiple forms • Know the difference between a linear and non-linear sequence • Explain the term-to-term rule for sequences. • Use function machines • Substitute values into expressions • Generate sequences from rules • Solve linear equations • Simplify algebraic expressions • Round to powers of 10 • Round to 1 significant figure • Represent numbers on a number line • Order numbers & use inequality notation • Find the range and median • Convert between fractions, decimals and percentages. • Simplify fractions and use equivalent fractions • Understand fractions as division	• Solve problems in different context using addition and subtraction • Understand and use factors and multiples • Solve problems in different context using formal methods of multiplication and division. • Solve problems in financial context and statistical representations • Solve problems involving perimeter and area of 2d shapes • Find fractions and percentages of an amount • Find the whole given a fraction or percentage • Add and subtract fractions, improper fractions and mixed numbers • Add and subtract simple algebraic fractions • Use labelling conventions for lines and angles • Identify, measure and draw lines and angles • Recognise types of polygons including triangles and quadrilaterals • Construct triangles • Recognise, identify and explore congruent triangles • Interpret and draw pie charts	• Calculate angles at a point and at a point on a straight line • Calculate vertically opposite angles • Calculate angles in a triangle and quadrilateral • Calculate angles in polygons and on parallel lines • Round to decimal places and use estimation • Use known number facts to derive others • Identify and represent sets and Venn diagrams • Understand and use the intersection, union and complement of sets. • Understand the vocabulary of probability and the probability scale. • Generate sample spaces • Calculate the probability of a single event and know that probabilities of all possible outcomes sum to 1. • Calculate probabilities from 2-way tables • Calculate the HCF and LCM • Recognise and identify prime, square and triangular numbers • Write a number as a product of it's prime factors • Use a Venn diagram to calculate the LCM and HCF

			• Make and test conjectures. • Use counterexamples to disprove a conjecture.
Assessment	Unit Test 1: Sequences Unit Test 2: Algebraic Notation Unit Test 3: Place value and ordering numbers Unit Test 4: FDP Equivalence	Unit Test 5: Addition and Subtraction Problems Summative Assessment 1 (2 papers) Unit Test 6: Addition and Subtraction of Fractions Unit Test 7: Measuring lines, angles and constructions	Unit Test 8: Geometrical reasoning Unit Test 9: Number sense Summative Assessment 2 (2 papers) Retrieval Test 10: Sets and Probability