Year 7 – 2019/2020

What are we doing this year?

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Algebraic Thinking**						**Place Value and Proportion**					
	Sequences		Understand and use algebraic notation		Equality and equivalence		Place value and ordering integers and decimals			Fraction, decimal and percentage equivalence		
Spring	**Applications of Number**						**Directed Number**			**Fractional Thinking**		
	Solving problems with addition & subtraction		Solving problems with multiplication and division			Fractions & percentages of amounts	Operations and equations with directed number			Addition and subtraction of fractions		
Summer	**Lines and Angles**						**Reasoning with Number**					
	Constructing, measuring and using geometric notation			Developing geometric reasoning			Developing number sense		Sets and probability		Prime numbers and proof	

Autumn Term – Algebraic Thinking

Topic 1:

Topic	Small Steps
Sequences	a) Describe and continue sequences
	b) Predict and check next terms
	c) Sequences in a table and graphically
	d) Linear and non-linear sequences
	e) Continue linear sequences
	f) continue non-linear sequences
	g) Explain the term-to-term rule
	h) Find missing terms (H)

Topic 2:

Understand and use algebraic notation	
	a) Given a numerical input, find the output of a single function machine
	b) Use inverse operations to find the input given the output
	c) Use diagrams and letters to generalise number operations
	d) Use diagrams and letters with single function machines
	e) Find the function machine given a simple expression
	f) Substitute values into single operation expressions
	g) Find numerical inputs and outputs for a series of two function machines
	h) Use diagrams and letters with a series of two function machines
	i) Find the function machines given a two-step expression
	j) Substitute values into two-step expressions
	k) Generate sequences given an algebraic rule
	l) Represent one and two step functions graphically

Topic 3:

Equality and equivalence	a) Understanding the meaning of equality
	b) Understand and use fact families, numerically and algebraically
	c) Solve one-step linear equations involving +/-using inverse operations
	d) Solve one-step linear equations involving x/÷using inverse operations
	e) Understand the meaning of like and unlike terms
	f) Understand the meaning of equivalence
	g) Simplify algebraic expressions by collecting like terms, using the ≡ symbol