YEAR 11	Autumn 2021				Higher	
DATES	UNIT / LESSON	PRIOR KNOWLEDGE	GRADE FROM ...	GRADE TO ...	OBJECTIVES	Corbett
	17.3 Simplifying algebraic fractions	Factorise expressions by identifying the common factor between two terms. Simplify fractions containing simple algebraic terms. Factorise quadratic expressions of the form x2 + bx + c	6	9	Simplify algebraic fractions.	21-24
06 September 2021	17.4 More algebraic fractions	Simplify algebraic fractions by cancelling common factors. Add, subtract, divide and multiply fractions containing simple algebraic terms.	6	9	Add and subtract more complex algebraic fractions. Multiply and divide more complex algebraic fractions.	
13 September 2021	17.5 Surds	Decide whether each number is rational or irrational.	7	9	Simplify expressions involving surds. Expand expressions involving surds. Rationalise the denominator of a fraction.	305-308
20 September 2021	17.6 Solving algebraic fraction equations	Find the lowest common multiple of two algebraic fractions. Solve quadratic equations by factorising. Manipulate expressions containing simple algebraic fractions.	7	9	Solve equations that involve algebraic fractions.	
27 September 2021	17.7 Functions	Calculate the output from a function machine for three different inputs. Solve simple equations Write expressions using function machines	5	9	Use function notation. Find composite functions. Find inverse functions.	369-370
04 October 2021	17.8 Proof	Identify an odd number and an even number written algebraically. Recall the definitions of equations and identities.	5	9	Prove a result using algebra.	365
END OF TERM 6 TEST						
	18 Vectors and geometric proof	Use vectors to describe translations. Recall and use Pythagoras' Theorem. Recall the properties of triangles and quadrilaterals. Express the relationship between two quantities as a ratio. Simplify surds.	6	9		
11-Oct	18.1 Vectors and vector notation	Use vectors to describe translations. Recall and use Pythagoras' Theorem. Simplify surds.	6	7	Understand and use vector notation. Work out the magnitude of a vector.	353a
	18.2 Vector arithmetic	Understand the components of a vector and use vectors to describe translations. Recall properties of triangles and quadrilaterals.	7	7	Calculate using vectors and represent the solutions graphically. Calculate the resultant of two vectors.	
18-Oct	18.3 More vector arithmetic	Use properties of a parallelogram to identify equal and parallel lines. Add two column vectors.	7	8	Solve problems using vectors. Use the resultant of two vectors to solve vector problems.	
HALF TERM	18.4 Parallel vectors and collinear points	Identify parallel column vectors. Add and subtract column vectors.	7	9	Express points as position vectors. Prove lines are parallel. Prove points are collinear.	353
1-Nov						
8-Nov	18.5 Solving geometric problems	Understand the relationship between ratio and fractional parts Identify parallel vectors	9	9	Solve geometric problems in two dimensions using vector methods. Apply vector methods for simple geometric proofs.	
	19 Proportion and graphs	Draw linear and quadratic graphs. Recognise linear and quadratic graphs. Calculate the gradient of a linear function between two points. Recall transformations of trigonometric functions. Write statements of direct proportion and forming an equation to find values. Recognise a graph showing direct proportion. Recall and use the formula speed = distance ÷ time.	4	9		
15-Nov	19.1 Direct proportion	Recognise direct proportion Write equations for quantities in direct proportion.	6	7	Write and use equations to solve problems involving direct proportion.	254
22-Nov						
29-Nov	19.2 More direct proportion	Use direct proportion. Find the constant of proportionality.	7	7	Write and use equations to solve problems involving direct proportion. Solve problems involving square and cubic proportionality.	255
6-Dec	19.3 Inverse proportion	Using inverse proportion to solve simple problems. Write equations for quantities in direct proportion.	7	8	Write and use equations to solve problems involving inverse proportion. Use and recognise graphs showing inverse proportion.	
13-Dec						