

YEAR 9

HALF TERM 1

What? When? Why?	Lesson 1 Learning intentions (what can a student do at the end of the lesson)	Lesson 2 Learning intentions (what can a student do at the end of the lesson)	Lesson 3 Learning intentions (what can a student do at the end of the lesson)	Lesson 4 Learning intentions (what can a student do at the end of the lesson)
Week 1 Straight line graphs	Plot and recognise lines in the form $x=a$, $y=b$, $y=x$ and $y=-x$ (R) Understand the relationship between a pair of co-ordinates and a line (R)	Complete and use a table of values to plot a straight line graph Look for patterns in their tables of values	Find gradients between two points Find gradient of a line Identify that the greater the gradient of a line, the steeper it is	Recognise that the coefficient of x in the equation of a line tells us the gradient Recognise that the value of c is the y -intercept
Week 2 Straight line graphs	Manipulate the gradient and y -intercept from the equation of a line	Find the equation of a line from a graph Recognise that having the same gradient makes lines parallel Find the equation given a point and parallel to a line	Use graphs showing real-life scenarios to interpret gradient and intercepts Apply real-world knowledge (y -intercept for minimum fare in a taxi)	Recognise perpendicular lines on a graph (H) Recognise that the product of the gradients of a pair of perpendicular lines will always be -1 (H)
Week 3 Forming and solving equations	Understand and use algebraic notation fluently Solve equations with unknowns on one side	Solve equations with unknowns on one side including brackets Become familiar with solutions that are not integers	Solve equations with unknowns on both sides using the 'balance' method	Explore and understand inequalities including representation on a number line and integer solutions (R)
Week 4 Forming and solving equations	Solve inequalities	Look at forming and solving equations in mathematical contexts eg. Angle rules and averages	Explore the difference between formulae and equations and substitute numbers in formulae to produce equations to solve	Explore the link between solving and rearranging formulae
Week 5 Forming and solving equations Testing conjectures	Explore formulae that include squaring and square rooting and that have terms in brackets	Expand a pair of binomials where all the terms are positive	Factors and multiples	Express a number as a product of primes
Week 6 Testing conjectures	Identify whether given statements are true or false	Use reasoning skills to establish whether a statement is sometimes, always or never true	Provide a formal demonstration of whether a statement is true or not Verify algebraic identities	Use and experiment with conjectures in algebra such as $2n$ always being even and $2n+1$ is always odd
Week 7 Testing conjectures	Use the 100 square to form expressions and practise simplification	Recap and revision	Recap and revision	HALF TERM