The Sutton Academy

Knowledge Rich Curriculum Plan

Year 11 Higher – Algebra 2

Lesson/Learning Sequence	Intended Knowledge: *Students will know that…*	Tiered Vocabulary	Steps to Success	Prior Knowledge: *In order to know this students, need to already know that…*	Feedback
To learn how to find the equation of a straight line	• Students will know how to find the equation of a given straight line and write it in the form y = mx + c • Students will know how to find the gradient and y-intercept for a straight line representing a real-life situation and exp		•	• Students will need to know how to calculate gradient between two coordinates	Exam Prep 3
To learn how to find the equation of a straight line from coordinates and find the equation of parallel lines	• Students will know how to determine the equation of a straight line from two pairs of coordinates • Students will know that parallel lines have the same gradient • Students will know how to find the equation of a straight line that is parallel to another given line • Students will know how to solve more complex problems involving parallel lines	**Parallel –** parallel lines are two lines that are side by side and have the same distance continuously between them.	•	• Students will need to know how to calculate gradient • Students will need to know how to solve linear equations in the form a + x = c where a and c are integers or fractions	Exam Prep 3
To learn how to find the equation of perpendicular lines	• Students will know that the gradients of two perpendicular lines are negative reciprocals of one another • Students will know how to find the equation a straight line that is perpendicular to another given line • Students will know how to solve more complex problems involving perpendicular lines	**Perpendicular –** at a right angle to **Reciprocal** – The reciprocal of a number is 1 divided by the number	•	• Students will need to know how to find the reciprocal of an integer • Students will need to know how to find the reciprocal of a fraction	Exam Prep 3
To learn how to solve linear simultaneous equations	• Students will know how to solve linear simultaneous equations or find estimates to their solutions given two straight lines drawn on a graph • Students will know how to solve linear simultaneous equations by drawing two straight lines and identifying the x- and y- values for the point of intersection • Students will know how to use elimination to solve linear simultaneous equations algebraically • Students will know how to solve linear simultaneous equations representing a real-life situation and interpret the solution in the context of the problem	**Simultaneous –** occurring, operating, or done at the same time. **Simultaneous equations –** equations involving two or more unknowns that are to have the same values in each equation. **Linear Equation –** an equation between two variables that can be written in the form y=mx+c. Linear equations give a straight line when plotted on a graph.	•	• Students will need to know how to solve linear equations • Students will need to know how to substitute into formulae	Exam Prep 3