Algebra 1 Evaluation Expressions, Solving Linear equations, algebra fractions, simultaneous equations, subject of a formula, inequalities	▪ Simplify algebraic expressions ▪ Add algebraic fractions o E.g. add and subtract expressions of the form (ax+by+c) ±…± (dx+ey+f) ▪ Evaluate expressions ▪ Solve linear equations ▪ Solve linear equations with fractions o E.g. $\frac{a}{bx+c} \pm \frac{p}{qx+r}$ where a,b,c,p,q,r ∈ Z ▪ Algebraic division ▪ Perform linear inequalities o Selecting and using suitable strategies (graphic, numeric, algebraic, mental) for finding solutions to inequalities. Graph solution sets on the number line for linear inequalities in one variable o Manipulate and change the subject of a formula ▪ Solve simultaneous equations ▪ Apply simultaneous equations to various scenarios
Algebra 2 Factorising expressions, Quadratic Formula, indices & surds	▪ Factorise quadratic expressions ▪ Use factors to solve quadratic equations ▪ Solve quadratic equations involving fractions ▪ Use the quadratic formula o Solve quadratic equation using the -b formula and interpret the results ▪ Solve simultaneous equations – one linear, one quadratic – and interpret results (restricted to the case where either the coefficient of x or the coefficient of y is ± 1 in the linear equation) ▪ Form quadratic equations ▪ Apply the rules of indices and solve problems using them. b ∈ R; p, q ∈ Q; ▪ Use equations involving indices ▪ Deal with surds

Co-Ordinate Geometry of the line Distance, mid-point, slope, equation of the line, parallel & perpendicular, graphing lines, area of a triangle	▪ Understand and use the coordinate plane ▪ Find the distance between 2 points o Understand the distance formula is derived from Pythagoras' theorem ▪ Find the midpoint of a line segment ▪ Find the slope of a line o Understand that the slope formula is the rise/run o Understand that slope is the rate of change o Solve problems involving slopes of lines o Use slopes to show that 2 lines are parallel or perpendicular ▪ Find the equation of a line ▪ Use the equation y = mx+c o Find the slope of a line given the equation o Find the y intercept o Recognise the fact that the relationship ax + by + c = 0 is linear ▪ Understand co-ordinate geometry of perpendicular and parallel lines ▪ Graph lines o Be able to find points on a line o Sketch a line given its formula ▪ Find the intersection of 2 lines o Find the intersection of two lines using a graphical approach and an algebraic approach to the intersection of two lines, using simultaneous equations ▪ Find the area of a triangle using co-ordinate geometry o How to calculate the area of a triangle using coordinates of the vertices, translating to origin as needed