Keywords: Autumn 2 Year 11 Maths

Topic Title: Algebra, Quadrilaterals, and circles

- Quadratics: To be able to solve quadratic equations using graphs and by completing the square.
- Circles: to be able to solve circle theorem problems including proof.
- Tangents: to be able to find the equation of a tangent.

| Keyword | Definition |
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| Quadratic | Equations involving the power of 2 <br> i.e. ax |
| Transformations | A general term for four specific <br> ways to manipulate the shape <br> and/or position of a point, a line, <br> or geometric figure. These are <br> reflections, translations, rotations, <br> enlargements. |
| Diameter | The distance from one point on a <br> circle through the centre to <br> another point on the circle. |
| Tangent | A line that touches the circles <br> outside edge at only one point. |
| Chord | A straight line that joins one edge <br> of the circle to another edge, but <br> does not go through the centre. |
| Segment | The region that is bounded by an <br> arc and a chord of the circle. |
| Sector | The portion of a circle that is <br> enclosed between two radii and the <br> edge of the circle. |
| Roots | A solution to an equation, usually <br> expressed as a number or an <br> algebraic formula. |
| Proof | Logical mathematical arguments <br> used to show the truth of a <br> mathematical statement. This is <br> usually done using algebra. |

