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| **Subject** | **Year 9 Threshold Concepts – Summer Term** | **How to support students’ learning** |
| Mathematics | **2D & 3D Shapes**   * Find the perimeter of rectilinear shapes and composite shapes * Know and apply the formulae for rectangles, triangles, trapeziums * Calculate the volume of cuboids and prisms * Calculate the surface area of cuboids and prisms   **Straight line graphs**   * Solve simple coordinate problems * Plot straight line graphs * Find gradients and intercepts * Find equations of straight lines * Solve simultaneous equations graphically   **Non-linear graphs**   * Plot quadratic, cubic and reciprocal graphs * Plot graphs of trigonometric functions (Higher tier only)   **Transformations**   * Describe and use the transformations reflection, rotations, translation, enlargement * Solve problems involving a combination of transformations | * Encourage your child to practise drawing different 3D shapes and learn the names of the parts * Encourage your child to use a pencil and a ruler to complete neat and accurate work * Use [www.sparx.com](https://sparxmaths.com/)for support if needed. Teachers will have provided your child with a login and password. * Encourage your child to complete graphs neatly and accurately * Encourage them to learn the equation of a straight line * Encourage your child to learn the shapes of the different graphs so that they can recognise each shape |