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| **Subject** | **Year 9 Threshold Concepts – Spring Term** | **How to support students’ learning** |
| Mathematics | **Equations and Inequalities**   * Use real life formulae * Rearrange formulae * Solve linear simultaneous equations * Represent inequalities on a number line * Solve inequalities     **Bearings, Constructions and Loci**   * Construct triangles and polygons accurately * Make accurate scale drawings * Interpret maps and scales * Construct bisectors and perpendiculars * Solve loci problems     **Trigonometry**   * Understand and use Pythagoras’ Theorem * Use trigonometry in right angles triangles * Learn exact values for special angles | * Encourage your child to think about formulae that are used   in life           * Encourage your child to use a sharp pencil when completing constructions * Encourage them to think about careers that use construction techniques * 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 learn Pythagoras’ Theorem and discuss with them where it might be used * Encourage them to learn SOHCAHTOA and the exact values for special angles |
|  | **Statistics**   * Present data using bar charts, pie charts, frequency polygons, stem and leaf diagrams * Calculate averages and explain their advantages and disadvantages * Draw and interpret scatter graphs * Calculate moving averages * Design questionnaires and describe methods of sampling   **Probability**   * Basic probabilities and expectation * Listing outcomes and sample space diagrams * Relative frequency * Frequency trees * Two way tables | • Encourage your child to be accurate when drawing charts and diagrams       * Discuss examples of the use of probability |