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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
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|   | **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
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