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| **Subject** | **Year 10 Threshold Concepts – Spring Term** | **How to support students’ learning** |
| Mathematics | **Probability**   * Review skills from Year 9 * Use simple set notation * Use tree diagrams * Construct and interpret Venn Diagrams (Higher tier only) * Solve problems involving conditional probability (Higher tier only)   **Trigonometry**   * Pythagoras’ Theorem * Trigonometry in right angled triangles * Trigonometry and Pythagoras’ Theorem in 3D (Higher tier only) * Use sine and cosine rules (Higher tier only) * Use ½ absinC to calculate areas (Higher tier only)   **Linear Graphs**   * Generate points and plot a straight line graph * Find the equation of a straight line graph * Solve simultaneous equations using straight line graphs * Find equations of perpendicular lines (Higher tier only) * Shade regions which satisfy given inequalities (Higher tier only)     **Statistics**   * Review averages and frequency tables from Year 9 * Draw and interpret scatter graphs * Calculate moving averages (Higher tier only) * Draw and interpret box plots, cumulative frequency curves and histograms (Higher tier only) | * Encourage your child to look back at their probability notes   from last year   * 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 look back at their notes and to learn Pythagoras’ Theorem. * Encourage your child to learn the trigonometric ratios SOHCAHTOA and the special angles. * Encourage your child to think about where they would see scale drawings outside of the classroom and what careers would work with scale drawings and maps. * Encourage them to think about units when talking about weight and height. * Encourage your child to use the correct equipment when working with lines and angles (a pencil, ruler and protractor) * Use [www.sparx.com](https://sparxmaths.com/)for support if needed. Teachers will have provided your child with a login and password. |