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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.

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