# MONTSAYE MATHEMATICS HOME LEARNING SUPPORT YEAR 9 Higher

You currently need to do your learning from home. There is a range of resources ready for you to use on the topics you have been studying in your **Maths** lessons. The tables below contain the relevant topics on the Kerboodle website with the relevant text books and support videos.

- Work out which term we are in by checking the date.
- Work out which set you are in which will be on your timetable.
- Log onto Kerboodle using your first name initial and your surname. Your password is what you set it as (initially it is the same as your login). E.g.: Isaac Newton would be INewton. The institution code is **fry0**
- Find out which lesson you are on and watch the video that goes with that lesson (click the video icon at the top of the page). Complete the questions on the right hand page for the lesson.
- *If you need to email your teacher type their initial and surname +* ***@montsaye.northants.sch.uk*** **msmith/ msipple / jellis / gurwin / shoche / rpierce / gbaria / jmayers / tgrowcock / lfernandez**

**Lessons usually include a video explaining the main ideas and then you need to follow instructions to complete some written work. Remember, if you need extra support you can go to www.mymaths.co.uk and type the code on the text book page (the links are mostly in the table), re-watch the video, email your teacher, check another source such as BBC bitesize, if you forget your password for www.mymaths.co.uk then email your teacher asking for it.**

| | Term 1: *Sep-Oct* | Term 2: *Nov-Dec* | Term 3: *Jan- Feb* | Term 4: *Feb-Mar* | Term 5: *Apr-May* | Term 6: *Jun-Jul* |
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| **Year 9 Higher 9xMa1 9yMa1**  | 1a. Significant figures<br>1b. Upper and lower bounds 1<br>1c. Upper and lower bounds 2<br>1d.Using numbers in index form<br><br>2a. Measures<br>2b. Dimensions<br>2c. Length and area<br>2d. Compound measures<br><br>3a. Index laws 1<br>3b. Index laws 2<br>3c. Multiplying linear expressions<br>3d.Factorising expressions<br>3e. Identities<br>3f. Formulae<br>3g. Changing the subject of a formula 1<br>3h. Changing the subject of a formula 2 | 4a. Calculating with fractions<br>4b. Recurring decimals and reciprocals<br>4c. Percentage increase and decrease<br>4d. Reverse percentages<br>4e. Financial maths 1 : Repeated percentage change<br><br>5a. Angle problems<br>5b. Angles in a polygon<br>5c. Circle properties<br>5d. Arcs and sectors<br>5e. Congruence<br><br>6a. The gradient of a straight line<br>6b. Graphs of linear functions<br>6c. Parallel and perpendicular lines<br>6d. Quadratic graphs 1<br>6e. Quadratic graphs 2<br>6f. Cubic graphs<br>6g. Distance-time graphs<br>6h. Real-life graphs<br>6i. Time series<br>6j. Exponential and reciprocal graphs<br><br>7a. Order of operations<br>7b. Calculating with decimals<br>7c. Using a calculator<br>7d. Interpreting the calculator display | 8a. Planning a statistical survey<br>8b. Data collection<br>8c. Frequency diagrams<br>8d. Moving averages<br>8e. The mean<br>8f. Correlation<br>8g.Cumulative frequency<br>8h. Interpreting data<br>8i. Comparing distributions<br>8j. Box plots<br><br>9a. Transformations<br>9b. Enlargements 1<br>9c. Enlargements 2<br>9d. Maps and scale drawings<br>9e. Similar shapes<br><br>10a. Consolidating linear equations<br>10b. Simultaneous equations 1<br>10c. Simultaneous equations 2<br>10d. Constructing simultaneous equations<br>10e. Solving simultaneous equations with graphs<br>10f. Solving inequalities<br>10g. Solving equations using trial-and-improvement | 11a. Standard form for large numbers<br>11b. Standard form for small numbers<br>11c. Powers and operations<br>11d. Indices and surds<br><br>12a Pythagoras' theorem<br>12b. Applications of Pythagoras' theorem<br>12c. Constructing a triangle<br>12d. Loci | 13a. Position-to-term rules<br>13b. Patterns and sequences<br>13c. Quadratic sequences<br>13d. Behaviour of a sequence<br><br>14a. 3D shapes<br>14b. 3D geometry<br>14c. Trigonometry 1<br>14d. Trigonometry 2<br>14e. Bearings | 15a. Fractions and proportion<br>15b. Ratio and proportion<br>15c. Proportionality<br>15d. Proportion and scale<br>15e. Proportional reasoning<br>15f. Financial maths 2 : Living on a budget<br><br>16a. Prediction and uncertainty<br>16b. Independent events<br>16c. Tree diagrams<br>16d. Probability of combined events<br>16e. Experimental probability<br>16f. Simulations<br>16g. Venn diagrams |