

Knowledge Organiser Maths Term 2 Year 8

The Numbers in **Red** are topics that have already been covered in either KS3 or KS4 and are being revisited to help the students to move onto more complicated topics.

The numbers in **blue** are the GCSE grade of the work being covered

In **Green** are the Maths genie reference which can be used for further revision and questions to try www.mathsgenie.co.uk

| Section 5:- Angles (7 hours) | | | Keywords |
|--|---|------|---|
| - Recap – angles on a straight line, triangles and around a point | 3 | MG 3 | Parallel lines – lines that always stay the same distance apart Transversal – the line that crosses the parallel lines Polygon – a shape with 3 or more straight sides Regular – all sides and angles are the same Irregular – not all sides and angles are equal Interior – angles inside a polygon Exterior – outside angles of a polygon |
| - Parallel lines, understanding and finding missing angles | 4 | MG 4 | |
| - Angles in polygons. Finding exterior and interior angles. | 3 | MG 4 | |
| - Find missing angles in regular and irregular polygons | 3 | MG 4 | |

| Section 6:- 2d and 3D shapes (12 hours) | | | Keywords |
|---|---|------|--|
| - Recap how to find the area and perimeter of composite shapes | 2 | MG 2 | Perimeter – the distance around the outside of a shape Circumference – the distance around the outside of a circle Area – the amount of space inside a shape Surface area – the area of each face of a 3D shape Net – a 3d shape folded out flat |
| - Recap finding the circumference and area of circles | 3 | MG 3 | |
| - Find the perimeter (arc) of circular and composite circular shapes | 4 | MG 3 | |
| - Find the surface area of Prisms and cylinders | 4 | MG 4 | |
| - Recap find the volume of cubes and cuboids | 3 | MG 4 | |
| - Find the volume of Prisms and cylinders | 4 | MG 4 | |

| Section 7:- Percentages (11 hours) | | | Keywords |
|---|---|------|---|
| - Convert between fractions decimals and percentages | 2 | MG ½ | Fraction – part of a whole Numerator – the top of a fraction Denominator – the bottom of a fraction Simplify Terminating – a decimal that stops Equivalent – the same as |
| - Recap find the percentage of an amount with and without a calculator | 2 | MG 3 | |
| - Percentage change (increase and decrease) with and without a calculator | 3 | MG 3 | |
| - Reverse percentages | 5 | MG 5 | |
| - Calculator simple interest | 4 | | |

| Section 8:- Probability (12 hours) | | | Keywords |
|---|-----|------|--|
| - Add and subtract fractions | 4 | MG 3 | Numerator – the top of a fraction Denominator – the bottom of a fraction Probability – the likelihood of something happening Theoretical probability – what we expect to happen Venn Diagram – chart showing the relationship among 2 or more sets of data |
| - Multiply and divide fractions | 3/4 | MG 3 | |
| - Work out theoretical probability of an event | 3 | MG 3 | |
| - Work out missing probabilities | 5 | MG 3 | |
| - Work out probability of two events happening | 4 | MG 3 | |
| - Use a sample space diagram to work out probability | 5 | | |
| - Construct and use Venn Diagrams | 5 | MG 5 | |
| - Use set notation to work out probability in Venn Diagrams | 7 | MG 5 | |