**MATHS**

**KS3**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Skill** | **Can identify simple use of**  **Stage 1** | **Beginning to**  **Stage 2** | **Developing**  **Stage 3** | **Able to apply**  **Stage 4** | **Correct application**  **Stage 5** | **Consistent**  **Stage 6** | **Sustained**  **Stage 7** | **Independent command**  **Stage 8** | **Mastery**  **Stage 9** |
| **Place Value** | Count to 10 | Count to100 | Count to 1,000,000 | Use of negative numbers | Work with numbers to 2 decimal places. | Can round numbers to give accuracy. | Can round numbers to 2 decimal places. | Can evidence use of stages 1-7 | Can recall and consistently demonstrate stages 1-7 |
| **4 Operations** | Number bonds to 10. | To be able to add and subtract 1 digit numbers. | To be able to add and subtract 2 digit numbers. | Multiply single digit numbers. | Divide without a remainder. | Multiply and divide larger numbers including remainders. | Apply 4 operations to any given number. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate stages1-7 |
| **Proportion** | Recognise halves and quarters. | Recognise other single fractions. | Recognise fraction with non unit numerator. | Understand simple percentage. | Convert from percentage to fraction and decimal. | Find fractions and percentages of an amount. | Increasing and decreasing as a percentage. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate stages1-7 |
| **Ratio** | Know what a ratio is. | Find equivalent ratios. | Express a ration as a fraction. | Divide amounts into given ratios. | Compare prices using ratio. | Solve problems using ratio given partial information. | Calculate compound units such as speed. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate stages1-7 |
| **Algebra** | Recognise simple algebra. | Collect like terms. | Form simple equations and formula. | Manipulate simple equations. | Substitute numbers into algebraic equations. | Solving simple linear equations. | Solving linear equations with unknowns on both sides. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate stages1-7 |
| **Sequences** | Continue a sequence using pictures. | Continue a simple numerical sequence. | Continue a more complex numerical sequence. | Recognise and name special sequences. | Generate and continue a geometric sequence. | Generate a sequence given the nth term. | Find the nth term of a sequence. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |
| **Mensuration** | Know what an area and perimeter are. | Find the perimeter of a simple shape. | Find the area of a simple shape. | Find the perimeter of a compound shape. | Find the area of a compound shape. | Find the volume of a simple shape. | Find the volume of a compound shape. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |
| **Shapes** | Recognise simple 2D shapes. | Draw simple 2D shapes. | Recognise basic 3D shapes. | Recognise basic polygon shapes. | Recognise more complex 3D shapes | Name quadrilaterals. | Name any properties of any 2D and 3D shapes. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate stages 1-7 |
| **Circles** | Recognise a circle. | Draw a circle | Know what the radius and diameter are. | Name all parts of the circle. | Discover pi. | Find the circumference and area of a circle. | Find the circumference and area of a sector of a circle. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |
| **Measures** | Be able to measure simple lengths. | Be able to measure simple masses. | Be able to measure simple capacities. | Know which units of measurement to use in a situation. | Can accurately estimate measurements. | Can convert from one metric unit to another. | Understand errors in measuring. | Can evidence use of stages 1-7. | Can evidence use of stages 1-7. |
| **Transformations** | Draw simple symmetry. | Draw a reflection on the line of symmetry. | Draw a reflection away from the line of symmetry. | Find the order of rotation of an object. | Rotate an object round a given point. | Enlarge and object by a positive scale factor. | Be able to use more than one translation on an object. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |
| **Angles** | Know what an angle is. | Name and recognise acute, right, obtuse and reflex angles. | Draw the angles. | Measure and draw angles accurately using a protractor. | Bearings. | Name and find angles in parallel lines. | Find angle sums of any polygon. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |
| **Linear Graphs** | Co-ordinates in the 1st quadrant. | Co-ordinates in all 4 quadrants. | Plot a horizontal or vertical line. | Plot lines with different gradients. | Find the gradient and the intercept. | Plot and find a linear graph using y=mx+c | Plot and interpret real life graphs. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate stages1-7 |
| **Probability** | Understand that probability is chance. | Use language associated with probability. | Use the probability scale. | Work out the probability of an event. | Work out the probability of an event not happening. | List all possible outcomes of an event. | Work out experimental probability. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |
| **Data Handling** | Collect data using a tally chart. | Draw basic bar charts or pictograms | Interpret basic bar charts and pictograms. | Compare 2 sets of data. | Find averages from a list of numbers. | Find averages from a frequency table. | Draw and interpret pie charts. | Can evidence use of stages 1-7. | Can recall and consistently demonstrate  stages 1-7 |