 **Threshold Concepts in mathematics – Year 5**

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| **Threshold concepts** |  | | |
| **Key concepts ideally learned before Year 5** | **Date** | | |
| Know times table facts and related division facts to automaticity |  |  |  |
| Add and subtract one-digit numbers to automaticity |  |  |  |
| Double and halve all number accurately, including decimal numbers |  |  |  |
| **Addition and subtraction** | **Date** | | |
| Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) |  |  |  |
| Add and subtract numbers mentally with increasingly large numbers |  |  |  |
| **Fractions** | **Date** | | |
| Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths |  |  |  |
| Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number |  |  |  |
| Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |  |  |
| Read and write decimal numbers as fractions |  |  |  |
| Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents |  |  |  |
| Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, |  |  |  |
| **Multiplication and Division** | **Date** | | |
| Identify multiples and factors |  |  |  |
| Know and use the vocabulary of prime numbers |  |  |  |
| Multiply numbers up to 4 digits by a one- or two-digit number |  |  |  |
| Multiply and divide numbers mentally drawing upon known facts |  |  |  |
| Divide numbers up to 4 digits by a one-digit number |  |  |  |
| Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 |  |  |  |
| Recognise and use square numbers and cube numbers |  |  |  |
| **Place Value** | **Date** | | |
| Read, write, order and compare numbers to at least 1,000,000 |  |  |  |
| Count forwards or backwards in steps of powers of 10 |  |  |  |
| Rounding |  |  |  |
| **Properties of shape** | **Date** | | |
| Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle |  |  |  |
| Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. |  |  |  |
| Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes |  |  |  |
| Draw given angles, and measure them in degrees (o) |  |  |  |
| **Statistics** | **Date** | | |
| Solve comparison, sum and difference problems using information presented in a line graph |  |  |  |
| Complete, read and interpret information in tables, including timetables |  |  |  |