## Eastfield Mathematics Expectations

|  | TARGETS | SEEN | SECURE |
| :---: | :---: | :---: | :---: |
|  | Number - Place Value |  |  |
| 1 | I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000. |  |  |
| 2 | I can read, write, order and compare numbers to at least 1,000,000. |  |  |
| 3 | I can determine the value of each digit in numbers up to 1,000,000. |  |  |
| 4 | I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 and 100000. |  |  |
| 5 | I can count forwards and backwards with positive and negative numbers, including through zero. |  |  |
| 6 | I can interpret negative numbers in context (temperature and co-ordinate grids). |  |  |
| 7 | I can solve number problems and practical problems with the above. |  |  |
| 8 | I can read Roman numerals to 1,000 (M) and recognise years written in Roman Numerals. |  |  |
| 1 | I have a concept of numbers well beyond 1,000,000 and their relative association to distances to planets; historical data and geographical aspects. |  |  |
| 2 | I can link working across zero for positive and negative numbers, e.g. to calculate time intervals. |  |  |
|  | Number - Addition and Subtraction |  |  |
| 9 | I can add and subtract numbers mentally with increasingly large numbers (12,462-2300 = 10,162). |  |  |
| 10 | I can add and subtract whole numbers with more than 4 digits, including using formal written methods. |  |  |
| 11 | I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. |  |  |
| 12 | I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. |  |  |
| 3 | I can use rounding as a strategy for quickly assessing what approximate answers ought to be before calculating. |  |  |
|  | Number - Multiplication and Division |  |  |
| 13 | I can identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers. |  |  |
| 14 | I use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. |  |  |
| 15 | I can establish whether a number up to 100 is prime and recall prime numbers up to 19. |  |  |
| 16 | I recognise and use square numbers and cube numbers, and the notation for squared and cubed. |  |  |
| 17 | I can multiply and divide numbers mentally drawing on known facts. |  |  |
| 18 | I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. |  |  |
| 19 | I can multiply numbers up to 4 digits by a 1- or two-digit number using a formal written method, including long multiplication for two-digit numbers. |  |  |
| 20 | I can divide numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context. |  |  |
| 21 | I can solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes. |  |  |
| 22 | I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. |  |  |
| 23 | I can solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates. |  |  |
| 4 | I can identify and explain links between multiplication facts beyond the 12 times table. For example, $25 \times 48=$ $\qquad$ , $100 \times 48=4800$, $\qquad$ $\times 48=4848$. |  |  |
|  | Number - Fractions (including decimals and percentages) |  |  |
| 24 | I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number [for example, $2 / 5+4 / 5=6 / 5=11 / 5$ ] |  |  |
| 25 | I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. |  |  |
| 26 | I can compare and order fractions whose denominators are multiples of the same number. |  |  |
| 27 | I can add and subtract fractions with the same denominator and denominators that are multiples of the same number. |  |  |

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| 28 | I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. |  |  |
| :---: | :---: | :---: | :---: |
| 29 | I can read and write decimal numbers as fractions. |  |  |
| 30 | I recognise and can use thousandths and relate them to tenths, hundredths and decimal equivalents. |  |  |
| 31 | I can round decimals with 2 decimal places to the nearest whole number and 1 decimal place. |  |  |
| 32 | I can read, write, order, compare and solve problems involving numbers with up to 3 decimal places. |  |  |
| 33 | I recognise the percent symbol (\%) and understand that percent relates to 'number parts per hundred'. |  |  |
| 34 | I can write percentages as a fraction (with a denominator of 100) and as a decimal. |  |  |
| 35 | I can solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4,1 / 5,2 / 5$, $4 / 5$ and those fractions with a denominator or a multiple of 10 or 25 . |  |  |
| 5 | I can use $=<>$ to compare proper and improper fractions. |  |  |
|  | Measurement |  |  |
| 36 | I can solve problems involving converting between units of time. |  |  |
| 37 | I can convert between different units of metric measure. |  |  |
| 6 | I can convert measurements that involve decimals and explain how. |  |  |
| 38 | I understand and use approximate equivalences between metric units and common imperial units (e.g. cm to inches; g to pounds; ml to pints). |  |  |
| 39 | I can measure and calculate the perimeter of compound shapes in cm and m . |  |  |
| 40 | I can calculate and compare the area of rectangles (including squares), using standard units (cm ${ }^{2}$ and $\mathrm{m}^{3}$ ) to estimate the area of irregular shapes. |  |  |
| 41 | I can explain the difference between volume and capacity. |  |  |
| 42 | I can estimate volume (for example, using $1 \mathrm{~cm}^{3}$ blocks to build cuboids or cubes) and capacity (for example using water). |  |  |
| 43 | I can use all four operations to solve problems involving measure using decimal notation, including scaling. |  |  |
| 44 | I can solve problems involving converting between units of time. |  |  |
| 7 | I can order time in different units e.g. 400 minutes, 18000 seconds, $1 / 3$ of a day or 6 hour). |  |  |
|  | Geometry - Properties of Shapes |  |  |
| 45 | I can use the properties of rectangles to deduce related facts and find missing lengths and angles. |  |  |
| 46 | I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles. |  |  |
| 47 | I can identify 3D shapes, including cubes and other cuboids, from 2D representations. |  |  |
| 48 | I know that angles are measured in degrees and can estimate and compare acute, obtuse and reflex angles. |  |  |
| 49 | I can identify angles at a point, one whole turn (total 360\%). |  |  |
| 50 | I can identify angles at a point on a straight line and a $1 / 2$ a turn (total 1800). |  |  |
| 51 | I can identify other multiples of 90ㅇ. |  |  |
| 52 | I can draw given angles and measure them in degrees. |  |  |
|  | Geometry - Position and Direction |  |  |
| 53 | I can identify, describe and represent the position of a shape following a reflection, using the appropriate language, and know that the shape has not changed. |  |  |
| 54 | I can identify, describe and represent the position of a shape following a translation, using the appropriate language, and know that the shape has not changed. |  |  |
|  | Statistics |  |  |
| 55 | I can complete, read and interpret information in tables, including timetables. |  |  |
| 56 | I can solve comparison, sum and difference problems using information presented in a line graph. |  |  |

