

Year 6 Exceeding Expectations: Number

- Compare, order and convert between fractions, decimals and percentages in contexts related to science, history or geography learning
- Move beyond squared and cubed numbers to calculate problems such as $X \times 10^n$ where n is positive
- Use $=$, \neq , $<$, $>$, \leq , \geq correctly
- Multiply all integers, (using efficient written methods) including mixed numbers and negative numbers
- Recognise an arithmetic progression (sequence of numbers where the difference between numbers is the same each time) and find the n th term
- Use formula for measuring area of shape, such as cuboid and triangle to work out area of irregular shape in the school environment
- Use four operations with mass, length, time, money and other measures, including with decimal quantities
- Create a scaled model of an historical or geographical structure showing an acceptable degree of accuracy using known measurements
- Calculate costs and time involved to visit a destination in another part of the world relating to on-going learning in history or geography
- Collect own data on personal project and present information in formats of their choosing, charts, graphs and tables and answer specific questions related to their research



Lammack Primary School



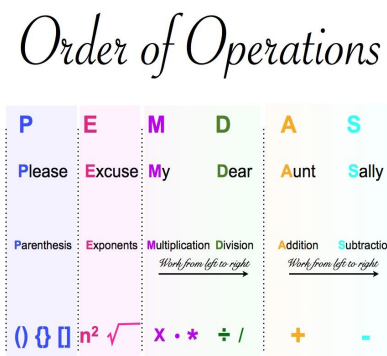
End of
year
expectations

Year 6
Mathematics

This booklet has been produced as an aid to help you and your child with the skills that are required this year, these are the expectations for the end of year. In class, we will be working towards these goals throughout the year and would appreciate your help and support in doing this. These skills would be useful to refer to when supporting your child with their homework. Thank you.

Year 6 Expectations: Number

- Use negative numbers in context, and calculate intervals across zero
- Round any whole number to a required degree of accuracy and solve problems which require answers to be rounded to a specific degree of accuracy
- Solve problems involving the relative sizes of two quantities where the missing values can be found by using integer (a whole number) multiplication and division facts
- Use common factors (numbers you multiply together to get another number) to simplify fractions; use common multiples to express fractions in the same denomination
- Solve problems involving the calculation of percentages, (for example, of measures) such as 20% of 440 and the use of percentages for comparison
- Multiply 1-digit numbers with up to two decimal places by whole numbers
- Divide numbers up to 4-digits by a 2-digit whole number using formal written methods of long division and interpret remainder in various ways
- Use knowledge of order of operations to carry out calculations involving all four operations



- Perform mental calculations, including with mixed operations with large numbers
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- Multiply simple pairs of proper fractions, writing the answer in its simplest form
- Divide proper fractions by whole numbers ($\frac{1}{8} \div 2 = \frac{1}{16}$)
- Associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375 for $\frac{3}{8}$)
- Express missing number problems algebraically
- Find pairs of numbers that satisfy number sentences involving two unknowns

Year 6 Expectations: Measurement, Geometry and Statistics

- Recognise, describe and build simple 3D shapes, including making nets
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangle, quadrilateral and regular polygons
- Illustrate and name parts of circles, including radius, diameter and circumference and know that the radius is half the diameter
- Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and **vice versa**, using decimal notation to up to 3 decimal places
- Calculate the area of a parallelogram and triangles and calculate, estimate and compare volume of cubes and cuboids using standard units
- Interpret and construct pie charts and line graphs and use these to solve problems