LOCKERS PARK SCHOOL

YEAR 6

KEY OBJECTIVES

This document provides information for parents on the key objectives taught in each Year group for Maths. All objectives will be worked on throughout the year and will be the focus of direct teaching. If you wish to provide further support at home, then these objectives should be your focus. If you have any queries regarding the content of this document or want support in knowing how best to help your child, then do please contact your child's teacher.

Number and Place Value	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
	Use decimal notation for tenths, hundredths and thousandths, partition and order numbers with up to three decimal places, and position them on the number line
	identify the value of each digit in numbers given to three decimal places
	round any whole number to a required degree of accuracy
	use negative numbers in context, and calculate intervals across zero
	solve problems which require answers to be rounded to specified degrees of accuracy
	solve number and practical problems that involve all of the above
Addition and Subtraction	perform mental calculations, including with mixed operations and large numbers
	use their knowledge of the order of operations to carry out calculations involving the four operations
	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	solve problems involving addition, subtraction, multiplication and division
Multiplication and Division	perform mental calculations, including with mixed operations and large numbers
	use their knowledge of the order of operations to carry out calculations involving the four operations
	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
	divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context
	divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
	multiply one-digit numbers with up to two decimal places by whole numbers
	multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
	use written division methods in cases where the answer has up to two decimal places
	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
	identify common factors, common multiples and prime numbers
	recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two-digit whole numbers
	Check calculations for accuracy using the rules of divisibility
	solve problems involving addition, subtraction, multiplication and division

Fractions, decimals and Percentages	compare and order fractions including fractions greater than 1
	Divide proper fractions by whole numbers
	use common factors to simplify fractions; use common multiples to express fractions in the same denomination
	associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $^3/_8$)
	recall and use equivalences between simple fractions, decimals and percentages
	add and subtract fractions with different denominators and mixed numbers
	multiply simple pairs of proper fractions, writing the answer in its simplest form
	find fractions and percentages of whole-number quantities, e.g. 5/8 of 96, 65% of £260
Ratio and Proportion	solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
	solve problems involving the calculation of percentages and the use of percentages for comparison
	solve problems involving similar shapes where the scale factor is known or can be found
	solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
Algebra	express missing number problems algebraically
	find pairs of numbers that satisfy number sentences involving two unknowns
	use simple formulae
	generate and describe linear number sequences
Measurement and Time	calculate the area of parallelograms and triangles
	recognise that shapes with the same areas can have different perimeters and vice versa
	recognise when it is possible to use formulae for area and volume of shapes
	calculate, estimate and compare volume of cubes and cuboids using standard units
	convert between miles and kilometres
	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 three decimal places
	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
Geometry Shape and Position	draw 2-D shapes using given dimensions and angles
	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
	recognise, describe and build simple 3-D shapes, including making nets
	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
	describe positions on the full coordinate grid (all four quadrants)
	draw and translate / rotate simple shapes on the coordinate plane, and reflect them in the axes.
Statistics	construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs
	interpret and construct pie charts and line graphs and use these to solve problems
	Solve problems involving selecting, processing, presenting and interpreting data, using ICT where appropriate
	calculate and interpret the mean, median and mode as an average
	discuss the likelihood (probability) of an event.