

Key Vocabulary

Number: equal to, equivalent to, is the same as, more, less, most, least, tally, many, odd, even, multiple of, factor of, factor pair, sequence, continue, predict, few, pattern, pair, rule, relationship, next, consecutive, > greater than, < less than, \geq greater than or equal to, \leq less than or equal to, Roman numerals, integer, positive, negative, above/below, zero, minus, negative numbers, formula, divisibility, square number, prime number, factorise, prime factor, ascending/descending order, digit total.

Multiplication and Division: multiplied by, multiple, factor, groups of, times, product, once, twice, three times ... ten times, repeated addition, division, dividing, divide, divided by, divided into, left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each ... ten each, group in pairs, threes ... tens, equal groups of, doubling, halving, array, row, column, number patterns, multiplication, table, multiplication fact, division fact, inverse, square, squared, cube, cubed.

Fractions (including decimals, percentages, ratio and proportion)

fraction, proper/improper fraction, equivalent fraction, mixed number, numerator, denominator, equivalent, reduced to, cancel, equal part, equal grouping, equal sharing, parts of a whole, half, two halves, one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths, tenths, hundredths, thousandths, decimal, decimal fraction, decimal point, decimal place, decimal equivalent, proportion, in every, for every, ratio, percentage, per cent, %.

Algebra, formula, formulae, equation, unknown, variable.

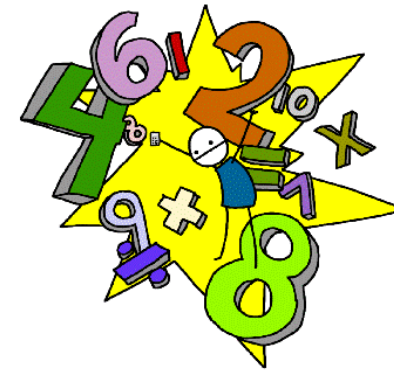
Geometry : curved, straight, round, hollow, solid, sort, make, build, construct, draw, sketch, perimeter, centre, radius, diameter, circumference, concentric, arc, net, open, closed, surface, angle, right-angled, congruent, intersecting, intersection, plane, base, square-based, size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, line symmetry, reflect, reflection, axis of symmetry, reflective symmetry, pattern, repeating pattern, match, regular, irregular. 2-D, two-dimensional, corner, side, point, pointed, rectangle (including square), rectangular, oblong, rectilinear, circle, circular, triangle, triangular, equilateral triangle, isosceles triangle, scalene triangle, pentagon, pentagonal, hexagon, hexagonal, heptagon, octagon, octagonal, parallelogram, rhombus, trapezium, kite, polygon, right-angled, parallel, perpendicular, x-axis, y-axis, quadrant 3-D, three-dimensional, face, edge, vertex, vertices, cube, cuboid, pyramid, sphere, hemisphere, spherical, cone, cylinder, cylindrical, prism, triangular prism, tetrahedron, polyhedron, octahedron, dodecahedron, net, open, closed.

Position and Direction: translate, translation, coordinate, movement, slide, roll, turn, stretch, bend, whole turn, half turn, quarter turn, three, quarter turn, rotate, rotation, angle, is a greater/smaller angle than, degree, right angle, acute angle, obtuse angle, reflex angle, reflection, straight line, ruler, set square, angle measurer, compass, protractor.

STATISTICS: count, tally, sort, vote, survey, questionnaire, data, database, graph, block graph, pictogram, represent, group, set, list, table, chart, bar chart, frequency table, bar line chart, Carroll diagram, Venn diagram, line graph, pie chart, label, title, axis, axes, diagram, most popular, most common, least popular, least common, maximum/minimum value, outcome, mean (mode, median, range as estimates for this), statistics, distribution.

Key Skills

Maths



Year 6



Place Value

1. I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.
2. **I can round any whole number up to a required degree of accuracy.**
3. **I can use negative numbers in context and calculate intervals across zero.**
4. I can add and subtract negative numbers.
5. I can identify each digit's value in numbers with 3 decimal places.

Addition, Subtraction, Multiplication and Division

6. I can use my knowledge of the order of operations to carry out calculations involving the four operations (BODMAS).
7. I can identify common factors, common multiples and prime numbers.
8. **I can multiply multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication.**
9. I can multiply one-digit numbers with up to 2 decimal places by whole numbers.
10. I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places.
11. **I can divide numbers up to four digits by a two-digit whole number.**
12. **I can divide and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.**
13. **I can use written division methods where the answer has up to 2 decimal places.**
14. **I can solve problems which require answers to be rounded to specified degrees of accuracy**
15. I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.
16. **I can solve multi-step problems in contexts, deciding which operations and methods to use and why.**
17. **I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.**

Fractions, percentages and Ratio

18. I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
19. I can compare and order fractions, including fractions >1 .
20. I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
21. I can multiply simple pairs of proper fractions, writing the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$.
22. I can divide proper fractions by whole numbers e.g. $1/3 \div 2 = 1/6$.
23. I can associate a fraction with division and calculate decimal fraction equivalents e.g. 0.375 for a simple fraction e.g. $\frac{3}{8}$.
24. **I can recall & use equivalences between simple fractions, decimals & %s and in different contexts.**
25. **I can solve problems involving the calculation of percentages and the use of percentages for comparison.**
26. **I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.**

Algebra

27. **I can use simple formulae.**
28. I can generate and describe linear number sequences.
29. I can express missing numbers algebraically.
30. I can find pairs of numbers that satisfy an equation with two unknowns.
31. I know equivalent expressions e.g. $a+b = b+a$.

Measurement

32. I can solve problems involving calculation & conversion of units of measure.
33. **I can use, read, write & convert between standard units, converting length, mass, volume & time from a smaller unit of measure to a larger unit, & vice versa, using decimal notation up to three decimal places.**
34. I can convert between miles and kilometres.
35. I can calculate, estimate & compare volumes of cubes & cuboids using standard units, incl. cm^3 & m^3 extending to other units e.g. mm^3 & km^3 .

Shape

36. I can draw 2D shapes using given dimensions & angles.
37. I can recognise, describe and build simple 3D shapes including making nets.
38. **I can compare and classify geometric shapes based on their properties and sizes.**
39. I can solve problems involving similar shapes where the scale factor is known or can be found.
40. I can recognise shapes with same areas can have different perimeters & vice versa.
41. I can recognise when it is possible to use formulae for area & volume of shapes.
42. I can calculate area of parallelograms & triangles.
43. I can illustrate and name parts of circles
44. **I can find unknown angles in any triangles, quadrilaterals and regular polygons.**
45. I can recognise angles where they meet at a point, are on a straight line or are within a 360 degree circle or vertically opposite.
46. I can find missing angles.

Position and Direction

47. I can describe positions on the full co-ordinate grid (all four quadrants).
48. **I can draw and translate simple shapes on the co-ordinate plane and reflect them in the axes.**

Statistics

49. I can choose an appropriate graph to represent data e.g. line, scatter, Carroll, Venn etc.
50. **I can interpret and construct pie charts and line graphs and use these to solve problems.**
51. **I can calculate and interpret the mean as an average.**

