



Year 7

Numeracy Term 1

Number:

PLACE VALUE

- Count, read, write and order numbers to 100,000 and beyond (8 digit numbers)
- Appreciate the value of each digit
- Consolidate rounding of numbers to the nearest 10, 100, 1000 and extend to rounding
 - a 5/6 digit numbers to the nearest 1000/100

DECIMALS (to 2 decimal places)

- Count, read, write and order numbers to 2 decimal places
- Explore the concept of rounding in the context of decimals to the nearest:
 - whole numbers
 - tenths or 1 decimal place

PATTERNS/RELATIONSHIPS AND SEQUENCE

- Extend function machines to include the use of 2 operations, finding output, input, function (using inverse operation to work out the input)
- Consolidate and understand multiples

ADDITION/SUBTRACTION

- Estimate answers of all written and calculator calculations
- Appreciate and use the relationships between the *four* operations, and the principles of the arithmetic laws
- Use the *four* operations in *mental and written* calculations, **estimating** answers beforehand. Apply in problem solving situations where pupils select operations required
- Extend addition and subtraction beyond 10000 (up to 5 digits) using the standard written method, **estimating** answers beforehand

DECIMALS/MONEY

- Add and subtract numbers to 2 decimal places using written methods

•

MULTIPLICATION/DIVISION

- Estimate answers of all written and calculator calculations
- Know and use multiplication facts to 12 X 12 in solving problems, written and/or mentally, including decimal numbers
- Understand the effect of using brackets in a calculation
- Extend multiplication of any 3 or 4 digit number by a single digit using written methods
- Extend division of any 3 or 4 digit number by a single digit using written methods
- Interpreting answers to division sums/problem solving in real terms



Year 7

Numeracy Term 1

ADDITION/SUBTRACTION

- Mentally add 4 or more single digit numbers
- Mentally add any two 2 digit numbers, including bridging 10 and 100 e.g. $57 + 48$
- Mentally add and subtract $10/100/1000/100000/1000000$ and multiples of the same to and from numbers up to eight digits

MULTIPLICATION/DIVISION

- Consolidate mental multiplication/division of a 2, 3, 4 digit number by 10, 100 and 1000
- Mentally multiply a 2 digit multiple of 10 by a single digit e.g. 40×3
- Mentally multiply a 3 digit multiple of 100 by a single digit e.g. 400×3
- Mentally multiply two 2 digit multiples of 10 e.g. 40×30

DECIMALS

- Mentally add/subtract decimals to 1dp without bridging the unit
- Mentally find what must be added to a 1 dp decimal number greater than 1 to make the next whole number

Shape & Space:

LINES/ANGLES

- Consolidate the properties of horizontal, vertical, parallel and perpendicular lines and recognise simple examples of these
- Consolidate understanding of the terms: *acute, obtuse, reflex and right angle*
- Perform calculation requiring knowledge of angle properties of regular 2D shapes e.g. sum of angles in a triangle = 180 degrees (using exterior angles to calculate interior angles)

2D SHAPE

- Investigate the properties of quadrilaterals including: *square, rectangle, rhombus, kite, parallelogram and trapezium*
 - *Sides*
 - *Angles (adjacent/opposite)*
 - *Symmetry*
- Investigate the properties of: *right angled, equilateral, isosceles and scalene triangles*
 - *Sides*
 - *Angles (adjacent/opposite)*
 - *Symmetry*
- Classify triangles into equilateral, isosceles, right angled and scalene triangles
- Reflect a 2D shape about a given line of symmetry, extend to a 2 lines of symmetry

Handling Data:



Year 7

Numeracy Term 1

FREQUENCY CHARTS

- Discuss the need to group data.
- Design and use an appropriate observation sheet for an identified issue. Evaluate its effectiveness.
- Construct frequency table with own equal class intervals and produce grouped frequency chart, using an ICT app such as “Key Note”
- Be able to use tally method, bar-gate convention when it isn’t possible to identify all the information required at one time

PIE CHARTS

- Understand pie charts using:
 - Visual discrimination
 - Fractions
- Complete and interpret given pie charts with divisions marked

LISTS

- Create an organised list to identify all possible combinations, *eg matches to be played in a games tournament.*

Measure:

LENGTH

- Estimate, measure and calculate length, selecting most appropriate unit and measuring equipment.
- Understand that measurement of length is continuous and selecting an appropriate degree of accuracy for different contexts.

PERIMETER

- Calculate the perimeter of simple shapes, initially with all lengths given, extend to measuring own length/missing lengths
- Investigate a formula for calculating the perimeter of a rectangle

WEIGHT

- Estimate, measure and calculate weight, selecting most appropriate unit and measuring equipment.
- Understand that measurement of weight is continuous and selecting an appropriate degree of accuracy for different contexts.

TIME

- Consolidate reading and relating analogue and digital time (5 minute and 1 minute intervals)
- Understand the use of 24 hr clock in meaningful contexts
- Use 24hr notation i.e. 1642 hours
- Use the relationship between minutes and hours to perform simple calculations involving counting forwards and backwards



Year 7

Numeracy Term 1

VOLUME / CAPACITY

- Estimate, measure and calculate capacity, selecting most appropriate unit and measuring equipment.
- Understand that measurement of capacity is continuous and selecting an appropriate degree of accuracy for different contexts.
- Develop a formula for calculating the volume of cubes and cuboids, based upon the area of each layer and the number of layers of cubes.