Year 5

Numeracy Term 1

Number:

UNDERSTANDING NUMBER AND NUMBER NOTATION

- Consolidate reading, writing and ordering numbers to 999, then extend to 9999
- Understand place value within 9999, representing whole numbers in terms of units, or tens, or hundreds of a combination of any of these, and approximating to the nearest 10 and 100
- Understand 0 as a place holder
- Understand the value of digits gets 10 times larger as you move to the next column on the left
- Count forwards and backwards in 1's,2's, 5's 10's and 100's from different starting numbers within 1000
- Count orally forwards and backwards in halves
- Whole number(language)

PATTERNS, RELATIONSHIPS AND SEQUENCES

- Use simple function machines to reinforce known addition, subtraction, and multiplication tables.
- Explore and use number patterns and equivalent forms of 2-digit numbers, eg 23+65=20+60+3+5 = 80+8=88
- Appreciate the commutative nature of multiplication, e.g 4x5=5x4
- Investigate and explain patterns which arise in various situations, e.g multiplication patterns of 2,3,4,5 on the 100 square
- Explore multiplication patterns on the 100 square: 2,4,8 times tables etc.

ADDITION AND SUBTRACTION

- Consolidate written HTU (999) addition and subtraction with exchange
- Develop vertical addition and subtraction through formal recording. Estimate answers before calculating.
- Understand that subtraction is the inverse of addition. Use this to check the results of simple calculations.
- Solve problems to include:
  - Choosing and using appropriate operations and efficient calculation strategies
  - Suggesting extensions by asking e.g. 'what if we changed?'
  - Explaining methods of calculation of numbers orally and, where appropriate, in writing
  - Solving simple word problems set in 'real life' contexts, explaining how the problem was solved.

ADDITION

- Add 3 single digit numbers
- Add three or four 2-digit numbers with the help of apparatus or pencil and paper.
- Consolidate addition to 1000:
  - No exchanges
  - 1 exchange
  - 2 exchanges

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SUBTRACTION

- Develop quick recall of subtraction facts within 20.
- Consolidate subtraction within 1000:
    - No exchanges
    - 1 exchange
    - 2 exchanges

MULTIPLICATION

- Develop recall of 6,7,8,9,11,12 multiplication facts, using pattern to help memorise e.g. 6x facts are double 3x facts, and 9x facts are treble 3 x facts, use commutatively to realise that they already know many facts in a 'new' table.
- Multiply using mental or pencil and paper methods:
    - a multiple of 10 by a single digit
    - Any 2/ digit number by a single digit.
    - Explore and use the effect of multiplying whole numbers by 10.

MONEY

- Consolidate finding totals of money to £10
- Investigate different ways of making amounts to £20
- Work out how much is left after buying items from £10.
- Consolidate -, + and x of amounts of money to £10, and use in problem solving activities using addition and subtraction. Extend beyond £10.00
- Estimate costs by rounding to the nearest 10p/50p/£1
- Discuss how different countries use different coins and notes including the use of the Euro
- Equivalence of coins to £5

MENTALLY

- Know near doubles within 20
- Know components of 20
- Know all remaining addition facts within 20
- Add 3 single digit numbers, rearranging as necessary
- Subtract any number from 20, using equivalent subtraction from 10 to help
- Know all remaining subtraction facts within 20
- Find doubles of multiples of 10 up to double 100, and corresponding halves e.g. double 40
- Find doubles of multiples of 100 up to double 500, and corresponding halves e.g. double 300, half of 600
- Find doubles of multiples of 5 up to double 95, and corresponding halves e.g. double 35, half of 70
- Find what must be added to any 2 digit number to make 100 e.g 56 + ?=100

Shape & Space:

Shapes

- Sort, name, recognise and describe 2D shapes, using number and length of sides, number of corners, number of right- angles, number of lines of symmetry, stating whether they are regular or irregular.

Co-Ordinates

- Understand use of co-ordinates in the first quadrant.
- Plot positions from given co-ordinates.
- Identify co-ordinate given points

Symmetry

- Understand symmetry of 2D shapes, using 1 line of symmetry

Handling Data:

Tally Charts

- Consolidate using tally methods to record data in given frequency table. Interpret results

Bar Graphs

- Construct simple bar charts, understand the labelling of frequency axis.
- Discuss and interpret the graph, drawing appropriate conclusions including both vertical and horizontal bar charts where scale is numbered in 2's, 5's or 10's.

Venn, Tree and Carroll Diagrams

- Construct Venn, Tree and Carroll diagrams for sorting activities involving two criteria.
- Collect data using observations, surveys and experiments. Compare ideas and methods of collection with others.

Measure:

Length

- Estimate, measure and record lengths in cm and/ or m and cm,
- converting between cm and m & cm e.g. 320 cm is equal to 3m and 20cm.
- Understand concept of perimeter.

Weight

- Estimate, measure and record weights using kg and g

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Capacity

- Estimate, measure and record weights using litres and millilitres.

Area

- Understand that a square cm is a square where each side is 1cm in length, and that it has an area of 1 square cm.
- Estimate and measure areas using the square cm as a standard unit, by counting squares, where the area:
- Is an exact number of complete cm squares.
- Is made up of whole and half cm squares.
- Record using written and index notation (i.e. square cm and cm^2).

Time

- Using analogue and digital clock times to 5 minutes, calculate what time it **will be**, or **was** using different intervals, (hours, half hours, quarter hours, multiples of 10 and 5 mins); e.g. The clock says 9.25. What time was it 20 minutes ago? What time will it be in 15 mins?
- Know the number of days in each month and use to calculate durations across a month.
- Appreciate and talk about important dates on the calendar e.g make a calendar array for December
- Discuss the months generally associated with each season