Yearly Maths Overview

YEAR TWO

Number and place value

Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
Recognise the place value of each digit in a two-digit number (tens, ones)
Identify, represent and estimate numbers using different representations, including the number line
Compare and order numbers from 0 up to 100; use <, > and = signs
Read and write numbers to at least 100 in numerals and in words
Use place value and number facts to solve problems.

Problem solving and reasoning

Select the mathematics they use in some classroom activities
Find a starting point, identifying key facts/relevant information
Use apparatus, diagrams, role-play, etc. to represent and clarify a problem
Move between different representations of a problem, e.g. a situation described in words, a diagram, etc.
Adopt a suggested model or systematic approach
Make connections and apply their knowledge to similar situations
Use mathematical content from levels 1 and 2 to solve problems and investigate
Discuss their work using mathematical language
Describe the strategies and methods they use in their work
Engage with others' explanations, compare... evaluate…
Begin to represent their work using symbols and simple diagrams
Use pictures, diagrams and symbols to communicate their thinking, or demonstrate a solution or process
Begin to appreciate the need to record and develop their own methods of recording
Explain why an answer is correct
Test a statement such as, 'The number twelve ends with a 2 so 12 sweets can be shared equally by 2 children'
Predict what comes next in a simple number, shape or spatial pattern

Phase 1

- Solve problems with addition and subtraction
- using concrete objects and pictorial representations, including those involving numbers
- applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently
- Add and subtract numbers using concrete objects, pictorial representations and mentally, including:
- a 2 digit number and ones
- a 2 digit number and tens
- Recall and use multiplication and division facts for the 2 and 10 times tables, including recognition odd and even numbers
- Show that multiplication of two numbers can be done in any order (commutative law)
- Solve problems involving multiplication and division, using materials, arrays, repeated addition and mental methods
- Recognise, find, name and write fractions 1/3 and ¼
- Compare and order lengths and record the results < > and =
- Find different combinations of coins that equal the same amounts of money
- Solve simple problems in a practical context involving addition and subtraction of money of the same unit
- Compare and sequence intervals of time
- Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line
- Identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid
- Order and arrange combinations of mathematical objects in patterns

Phase 2

- Solve problems with addition and subtraction
- using concrete objects and pictorial representations, including those involving measures
- Add and subtract numbers using concrete objects, pictorial representations and mentally, including:
- Adding three one-digit numbers
- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- Recall and use multiplication and division facts for the 5 times tables
- Calculate mathematical statements for multiplication using the multiplication (x) and equals (=) signs
- Recognise, find, name and write fractions ¾ and 2/4 of a length, shape, set of objects or quantity.
- Choose an use appropriate standard units to estimate and measure length/height in any direction (m/cm); using rulers
- Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- Solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change
- Tell and write the time including quarter past/to the hour and draw the hands on a clock face to show these times
- Know the numbers of minutes in an hour and number of hours in a day
- Identify and describe the properties of 3-D shapes including the number of edges, vertices and faces
- Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line
- Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

Phase 3

- Solve problems with addition and subtraction
- using concrete objects and pictorial representations, including those involving quantities
- recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100
- Add and subtract numbers using concrete objects, pictorial representations and mentally, including:
- two 2-digit numbers
- Recognise and use inverse relationship between addition and subtraction and use this to check calculations and missing number problems
- Calculate mathematical statements for division within the multiplication tables and write them using the division (÷) and equals (=) signs
- Show that division of one number by another cannot be done in any order
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context
- Write simple fractions e.g. ½ of 6 = 3 and recognise equivalence of 2/4
- Choose an use appropriate standard units to estimate and measure mass (g/kg); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using scales, thermometers and measuring vessels
- Compare and order mass, volume/capacity and record the length using < > and =
- Compare and sort common 2-D and 3-D shapes and everyday objects
- Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise.
- Interept and construct simple pictograms, tally charts, clock diagrams and simple tables
- Ask and answer questions about totalling and comparing categorical data

Phase 4 – Working deeper

During this phase, children will be given the opportunity to demonstrate their knowledge and understanding of all year one objectives in a wider range of problem solving contexts including investigations.