Mathematics Planning Framework

RISING STARS Maths

Babcock ldp *partners in education*

YEAR 2

Sequence 1

- count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- identify and represent numbers using objects and pictorial representations including the number line
- compare and order numbers from 0 up to 100
- read and write numbers to at least 100 in numerals
- use place value and number facts to solve problems
- compare and order lengths, mass, volume/capacity
- compare and sequence intervals of time

- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

Sequence 2

- count in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- use place value and number facts to solve problems
- solve problems with addition and subtraction:
  › using concrete objects and pictorial representations, including those involving numbers, quantities and measures
  › applying their increasing knowledge of mental methods 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 two-digit number and ones
  › a two-digit number and tens
  › adding three one-digit numbers
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- ask and answer questions about totalling and comparing categorical data

Sequence 3

- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]

- compare and sort common 2-D and 3-D shapes and everyday objects
- order and arrange combinations of mathematical objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement

Sequence 4

- count in steps of 2 and 5 from 0 and in tens from any number, forward and 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

- use place value and number facts to solve problems
- compare and order lengths, mass, volume/capacity and record the results using >, < and =
- compare and sequence intervals of time
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

Sequence 5

- count in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- use place value and number facts to solve problems
- solve problems with addition and subtraction:
  › using concrete objects and pictorial representations, including those involving numbers, quantities and measures
  › applying their increasing knowledge of mental methods and written methods
- 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:
  › a two-digit number and ones
  › a two-digit number and tens
  › 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
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems
- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins to equal the same amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- ask and answer questions about totalling and comparing categorical data

Sequence 6

- count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward
- recognise odd and even numbers
- interpret and construct simple pictograms, tally charts, block diagrams and simple tables

- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

Sequence 7

- count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot

- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins to equal the same amounts of money
- tell and write the time to five minutes
- know the number of minutes in an hour and the number of hours in a day

Sequence 8

- count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and 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
- use place value and number facts to solve problems

- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results using >, < and =
- compare and sequence intervals of time

Sequence 9

- count in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- use place value and number facts to solve problems
- solve problems with addition and subtraction:
  › using concrete objects and pictorial representations, including those involving numbers, quantities and measures
  › applying their increasing knowledge of mental methods and written methods
- 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:
  › a two-digit number and ones
  › a two-digit number and tens

- › two two-digit numbers
- › 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
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems
- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins to equal the same amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- ask and answer questions about totalling and comparing categorical data

Sequence 10

- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]

- compare and sort common 2-D and 3-D shapes and everyday objects
- order and arrange combinations of mathematical objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement

Sequence 11

- count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and 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

- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results using >, < and =
- compare and sequence intervals of time
- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

Sequence 12

- count in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- use place value and number facts to solve problems
- solve problems with addition and subtraction:
  › using concrete objects and pictorial representations, including those involving numbers, quantities and measures
  › applying their increasing knowledge of mental methods and written methods
- 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:
  › a two-digit number and ones
  › a two-digit number and tens
  › two two-digit numbers
  › 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
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems
- ask and answer questions about totalling and comparing categorical data

Sequence 13

- count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

- recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity
- write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
- tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
- know the number of minutes in an hour and the number of hours in a day

Sequence 14

- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
- compare and sort common 2-D and 3-D shapes and everyday objects
- order and arrange combinations of mathematical objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)

- recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity
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