

Green Lane Church of England Primary School
Maths Learning Plan Term 1
Year 3

<i>Topic or Activity</i>	<i>Year 3 Term 1 Knowledge Based Learning Objectives</i>
Number: Place Value	Identify, represent and estimate numbers using different representations
	Find 10 or 100 more or less than a given number
	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
	Compare and order numbers up to 1000
	Read and write numbers up to 1000 in numerals and in words
	Solve number problems and practical problems involving these ideas
	Count from 0 in multiples of 4, 8, 50 and 100;
Number: Addition & Subtraction	Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds
	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
	Estimate the answer to a calculation and use inverse operations to check answers
	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Number: Multiplication & Division	Count from 0 in multiples of 4, 8, 50 and 100
	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Overview

Small Steps

- ▶ Hundreds
- ▶ Represent numbers to 1,000
- ▶ 100s, 10s and 1s (1)
- ▶ 100s, 10s and 1s (2)
- ▶ Number line to 1,000
- ▶ Find 1, 10, 100 more or less than a given number
- ▶ Compare objects to 1,000
- ▶ Compare numbers to 1,000
- ▶ Order numbers
- ▶ Count in 50s

NC Objectives

Identify, represent and estimate numbers using different representations.

Find 10 or 100 more or less than a given number.

Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).

Compare and order number up to 1,000.

Read and write numbers up to 1,000 in numerals and in words.

Solve number problems and practical problems involving these ideas.

Count from 0 in multiples of 4, 8, 50 and 100

Overview

Small Steps

- ▶ Add and subtract multiples of 100
- ▶ Add and subtract 3-digit and 1-digit numbers – not crossing 10
- ▶ Add 3-digit and 1-digit numbers – crossing 10
- ▶ Subtract a 1-digit number from a 3-digit number – crossing 10
- ▶ Add and subtract 3-digit and 2-digit numbers – not crossing 100
- ▶ Add 3-digit and 2-digit numbers – crossing 100
- ▶ Subtract a 2-digit number from a 3-digit number – crossing 100
- ▶ Add and subtract 100s
- ▶ Spot the pattern – making it explicit
- ▶ Add and subtract a 2-digit and 3-digit numbers – not crossing 10 or 100
- ▶ Add a 2-digit and 3-digit numbers – crossing 10 or 100
- ▶ Subtract a 2-digit number from a 3-digit number – crossing 10 or 100
- ▶ Add two 3-digit numbers – not crossing 10 or 100
- ▶ Add two 3-digit numbers – crossing 10 or 100
- ▶ Subtract a 3-digit number from a 3-digit number – no exchange

NC Objectives

Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds.

Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.

Estimate the answer to a calculation and use inverse operations to check answers.

Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Overview

Small Steps

▶ Multiplication – equal groups

▶ Multiply by 3

▶ Divide by 3

▶ The 3 times table

▶ Multiply by 4

▶ Divide by 4

▶ The 4 times table

▶ Multiply by 8

▶ Divide by 8

▶ The 8 times table

NC Objectives

Count from 0 in multiples of 4, 8, 50 and 100

Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Green Lane Church of England Primary School
Maths Learning Plan Term 2
Year 3

<i>Topic or Activity</i>	<i>Year 3 Term 2 Knowledge Based Learning Objectives</i>
Number: Multiplication & Division	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects
Measurement: Money	Add and subtract amounts of money to give change, using both £ and p in practical contexts
Statistics	Interpret and present data using bar charts, pictograms and tables
	Solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables
Measurement: Length & Perimeter	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
	Measure the perimeter of simple 2-D shapes
Number: Fractions	Count up and down in tenths
	Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10
	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
	Solve problems that involve all of the above

Overview

Small Steps

- ▶ Comparing statements
- ▶ Related calculations
- ▶ Multiply 2-digits by 1-digit (1)
- ▶ Multiply 2-digits by 1-digit (2)
- ▶ Divide 2-digits by 1-digit (1)
- ▶ Divide 2-digits by 1-digit (2)
- ▶ Divide 2-digits by 1-digit (3)
- ▶ Scaling
- ▶ How many ways?

NC Objectives

Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Overview

Small Steps

- ▶ Pounds and pence
- ▶ Convert pounds and pence
- ▶ Add money
- ▶ Subtract money
- ▶ Give change



NC Objectives

Add and subtract amounts of money to give change, using both £ and p in practical contexts.

Overview

Small Steps

- ▶ Pictograms
- ▶ Bar Charts
- ▶ Tables

NC Objectives

Interpret and present data using bar charts, pictograms and tables.

Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Overview

Small Steps

- Measure length
- Equivalent lengths - m & cm
- Equivalent lengths - mm & cm
- Compare lengths
- Add lengths
- Subtract lengths
- Measure perimeter
- Calculate perimeter

NC Objectives

Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

Measure the perimeter of simple 2-D shapes.

Overview

Small Steps

- Unit and non-unit fractions
- Making the whole
- Tenths
- Count in tenths
- Tenths as decimals
- Fractions on a number line
- Fractions of a set of objects (1)
- Fractions of a set of objects (2)
- Fractions of a set of objects (3)

NC Objectives

Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.

Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.

Solve problems that involve all of the above.

Green Lane Church of England Primary School
Maths Learning Plan Term 3
Year 3

<i>Topic or Activity</i>	<i>Year 3 Term 3 Knowledge Based Learning Objectives</i>
Number: Fractions	Recognise and show, using diagrams, families of common equivalent fractions
	compare and order unit fractions, and fractions with the same denominators
	Add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)
	Solve problems that involve all of the above
Measurement: Time	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
	Estimate and read time with increasing accuracy to the nearest minute;
	Record and compare time in terms of seconds, minutes, hours and o'clock;
	Use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
	Know the number of seconds in a minute and the number of days in each month, year and leap year
Compare durations of events, for example to calculate the time taken by particular events or tasks	
Geometry: Properties of Shape	Recognise angles as a property of shape or a description of a turn
	Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
	Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
	Draw 2-D shapes and make 3-D shapes using modelling materials;
Recognise 3-D shapes in different orientations and describe them	
Measurement: Mass, Capacity & Temperature	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

Overview

Small Steps

Equivalent fractions (1)

Equivalent fractions (2)

Equivalent fractions (3)

Compare fractions

Order fractions

Add fractions

Subtract fractions

NC Objectives

Recognise and show, using diagrams, equivalent fractions with small denominators.

Compare and order unit fractions, and fractions with the same denominators.

Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]

Solve problems that involve all of the above.

Overview

Small Steps

- Months and years
- Hours in a day
- Telling the time to 5 minutes
- Telling the time to the minute
- Using a.m. and p.m.
- 24-hour clock
- Finding the duration
- Comparing durations
- Start and end times
- Measuring time in seconds

NC Objectives

Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks.

Estimate and read time with increasing accuracy to the nearest minute.

Record and compare time in terms of seconds, minutes and hours.

Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.

Know the number of seconds in a minute and the number of days in each month, year and leap year.

Compare durations of events [for example to calculate the time taken by particular events or tasks].

Overview

Small Steps

- Turns and angles
- Right angles in shapes
- Compare angles
- Draw accurately
- Horizontal and vertical
- Parallel and perpendicular
- Recognise and describe 2D shapes
- Recognise and describe 3-D shapes
- Make 3-D shapes

NC Objectives

Recognise angles as a property of shape or a description of a turn.

Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.

Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Draw 2-D shapes and make 3-D shapes using modelling materials.

Recognise 3-D shapes in different orientations and describe them.

Overview

Small Steps

- Measure mass (1)
- Measure mass (2)
- Compare mass
- Add and subtract mass
- Measure capacity (1)
- Measure capacity (2)
- Compare capacity
- Add and subtract capacity

NC Objectives

Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)