

The following documents are used to provide us with a long term planning structure for teaching and learning over the year. We use the combination alongside our own teacher judgement and remain flexible for several reasons, taking into account:

- The pace of the children’s understanding in line with our whole class teaching for mastery approach

NC
Learn-

Year 1 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)				Geometry: Shape	Number: Place Value (within 20)		Consolidation
Spring	Number: Addition and Subtraction (within 20)				Number: Place Value (within 50) (Multiples of 2, 5 and 10 to be included)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Number: Multiplication and Division (Reinforce multiples of 2, 5 and 10 to be included)			Number: Fractions		Geometry: position and direction	Number: Place Value (within 100)		Measurement : money	Time		Consolidation

Key Vocabulary:

STEM
Sen-
tences:

NC Learning Objectives: Key Skills

- Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- Count numbers to 100 in numerals; count in multiples of twos, fives and tens
- Identify and represent numbers using objects and pictorial representations
- Read and write numbers to 100 in numerals

Concrete



Unifix for numbers to 20 and Base 10 beyond.



Tens frames. Real objects and counters.
Number fans.



Numicon used weekly.
Physical numberlines.



Bead Strings 0-20



Pictorial

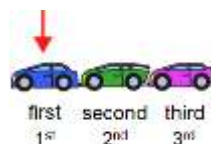


Subitising and explaining using understanding of part, part, whole



Explicitly taught counting strategies which develop understanding of place value—grouping the ten

Tom has used the number track to complete $4 + 2$. He thinks the total is 5.
What mistake has he made?
How could Tom use the track to find the correct answer?



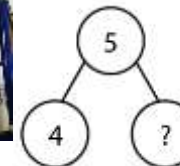
Abstract



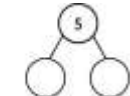
forty-two
four tens two ones

Varied direction, missing parts, fluency with every way of partitioning a new number

10s	1s
2	7



Early introduction of bar models



Key Vocabulary: count order compare greatest larger, largest greater than, less than bigger, biggest fewer, few-est smaller, smallest before, after halfway, between zero, one, two, three, ..., hundred first, second, third, ones, tens, 'teens' number, twenty number line, number track exchange partition numbers hundreds place value digit, one-digit number, property set, group odd, even sequence, continue count to, count on/back to/from, count up to/from the same number as, about the same as, as many as, equal to most/least common enough, not enough too much, too little, too many, too few nearly, roughly, about, close to, just over, just under, halfway forwards, back-wards round to nearest 10, tens boundary two-digit number one hundred, two hundred, ..., one thousand count in

STEM Sentences:

One part is _____. The other part is _____. The whole is _____.
_____ is the whole. _____ is a part, and _____. The parts are _____ and _____. The whole is _____, _____ is equal to _____, . One more than _____ is _____. One less than _____ is _____.
This number pattern is increasing/decreasing by _____. _____ plus _____ is greater than _____. If I know _____ then I know _____ because _____. _____ and _____ make _____. _____ is greater than _____. _____ is less than _____

NC Learning Objectives: Key Skills

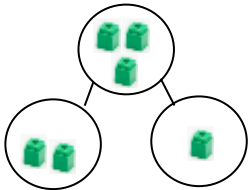
- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs
- Represent and use number bonds and related subtraction facts within 20
- Add and subtract one-digit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects & pictorial representations and missing number problems

Concrete

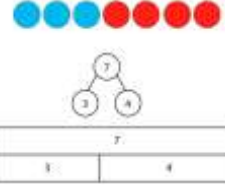
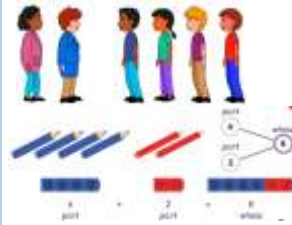
Pictorial

Abstract

STRUCTURE Aggregation and partitioning: combining parts



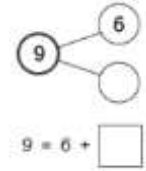
Unifix, counters, animals



$4 + 5 = 9$
 $5 + 4 = 9$
 $9 = 4 + 5$
 $9 = 5 + 4$

Systematic

$5 - 5 + 0$
 $5 - 4 + 1$
 $5 - 3 + 2$
 $5 - 2 + 3$
 $5 - 1 + 4$
 $5 - 0 + 5$

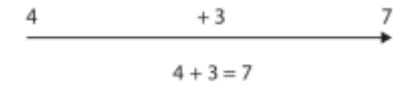
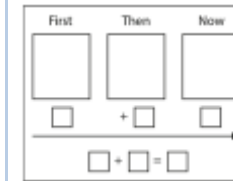
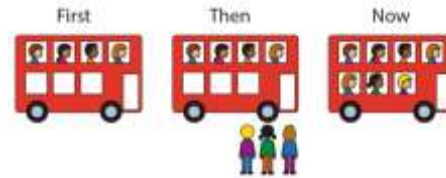


Variation in format and teaching commutativity

STRUCTURE Augmentation and reduction: change over time

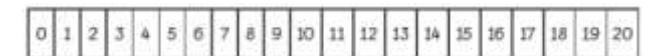
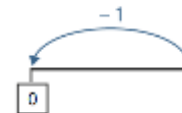


Using unifix for addition and subtraction



Understanding that each number represents something in the story.

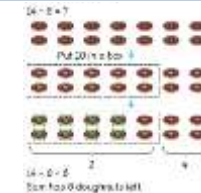
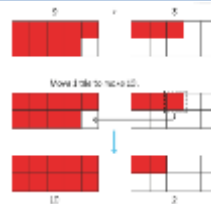
STRATEGY Counting on and counting back



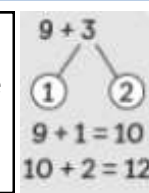
(a) $15 - 3 = \square$

(b) $16 - 4 = \square$

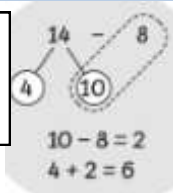
STRATEGY Add by making ten and subtracting from ten



Using knowledge of number bonds



Supporting understanding of



Key Vocabulary: add, plus, equals, makes, subtract, take-away, minus, equal to, partition, part, part, whole, number bond, aggregation, augmentation, reduction, partitioning, first, then, now, zero, fact, family, commutative, inverse, altogether, total, double, half, calculate, mental calculation right, correct, wrong number sentence sign, operation, symbol the same number as, as many as, equal to, equals (=) inverse more, most less, least greater add, plus (+) makes, sum, total, altogether share, subtract, minus (-), take away, leaves, difference how many ...?, how many more to make ...?, how many more is ... than ...?, how much more is...? how many fewer is ... than ...?, how much less is ...?, what is the difference between ...?

STEM Sentences:

____ plus ____ is equal to ____ . ____ subtract ____ is equal to ____
 When we subtract, we start with the whole .
 The whole is ____ The parts are ____ and ____
 To find the unknown part/whole I need to ____
 The difference between ____ and ____ is ____
 ____ is (so many) greater than ____ . ____ and ____ have a difference

- NC Learning Objectives:
- . solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Concrete



Using unifix and counters to make equal groups



Making arrays using toys, sticks, pebbles etc.



Pictorial

Counting and adding groups

Are the groups equal or unequal? Write a label for each.



$12 + 2 = \square$



Abstract

Double ___ is ___

$2+2+2+2+2=10$ $5 \times 2=10$

Finding doubles

Multiplication as repeated addition.

Show equal groups of 2.



There are ___ groups of ___

Introduction to times tables

I can make ___ equal groups of 2.

Key vocabulary:

group, share, equal groups of, grouping array, row, column multiply, multiplication, multiplied by (x), multiple share equally, divide, division, divided by (÷) remainder round up, round down double, halve, pair, near double, half count up to, count on from, count on to count in ones, twos, threes, fours, fives, tens odd, even compare more, less, how many more/less? equation, written calculation, informal method jottings, diagrams, pictures,

STEM Sentences:

___ groups of ___ are equal to ___. ___ shared equally into groups of ___ makes ___ groups. I shared ___ into ___ equal groups. There are ___ in each group. The pattern is increasing/decreasing in ___. There are ___ groups of ten. There are ___ ones. ___ groups of ten are equal to ___. ___ groups of two are equal to ___. There will be ___ in each group.

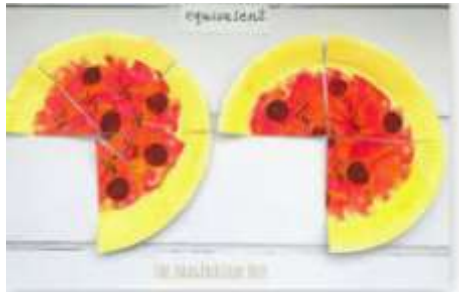
NC Learning Objectives:

- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Concrete



Introducing halves using cakes, fruit, pizza models



Introducing quarters

Pictorial

Sorting shapes into wholes, halves and quarters

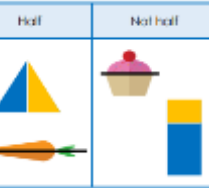
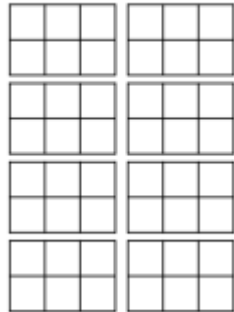
Find half of each amount.



Finding a half and a quarter of a group of objects

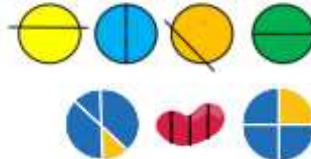


How many different ways can you shade one half of the shapes?



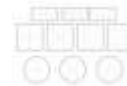
Finding a half and a quarter of a shape

Which circles have been split into equal halves?

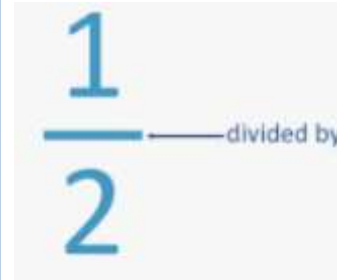


Only the second circle has been split into quarters. The others are not equal.

Colour a quarter of each shape. Can you colour it in different ways?



Abstract



1/4

Writing fractions

Key Vocabulary:

fraction half, halfway between halve, quarter, whole part, equal parts, one whole, parts of a whole, number of parts left over one-half, one-quarter, threequarters group

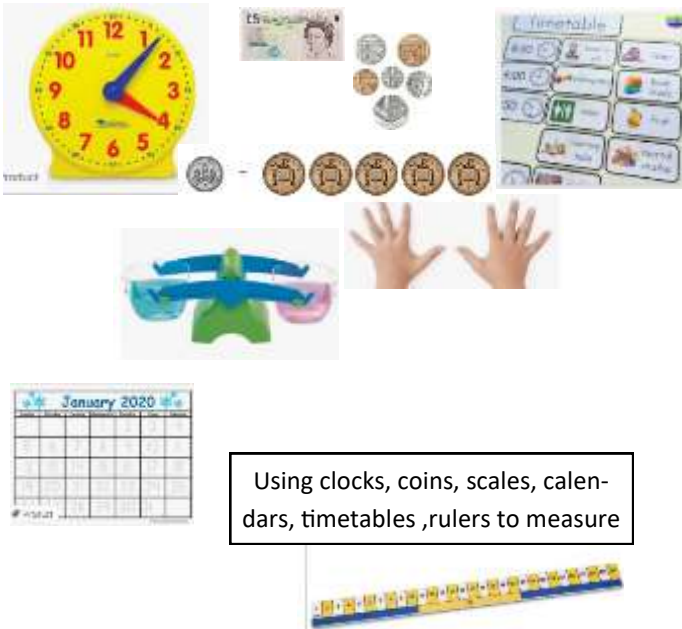
STEM Sentences:

Half of ____ is equal to ____ . When I halve a number, I make two equal parts. A half is one of two equal parts. There are ____ parts in total. ____ parts are shaded

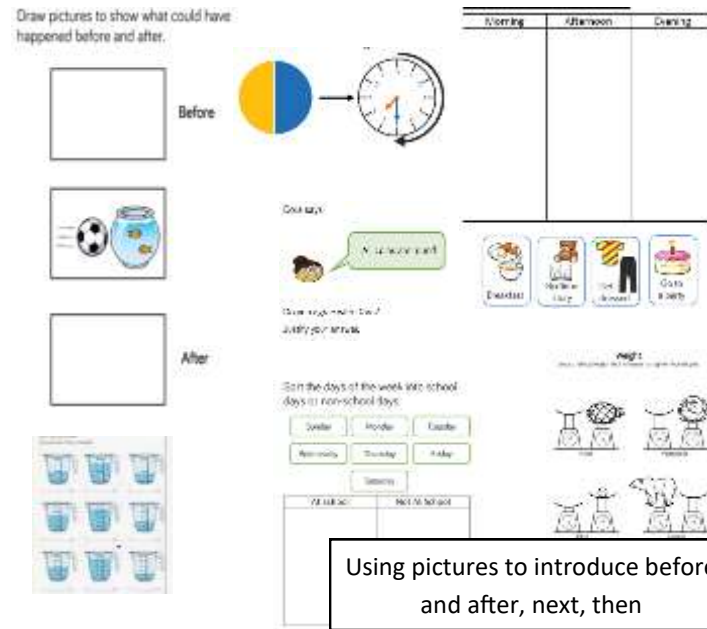
NC Learning Objectives:

- compare, describe and solve practical problems for:
 - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
 - mass/weight [for example, heavy/light, heavier than, lighter than]
 - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
 - time [for example, quicker, slower, earlier, later]
- measure and begin to record the following:
 - lengths and heights
 - mass/weight
 - capacity and volume
 - time (hours, minutes, seconds)
- recognise and know the value of different denominations of coins and notes
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

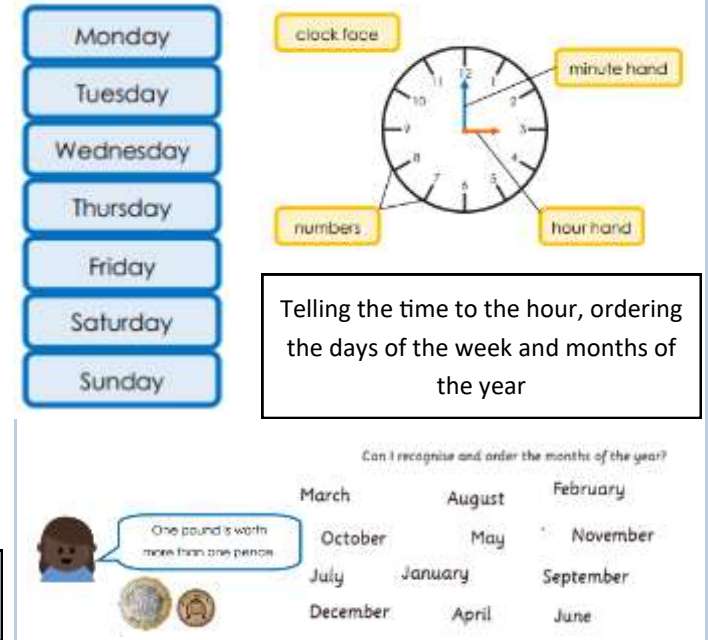
Concrete



Pictorial



Abstract



Key Vocabulary: measure compare narrow, deep, shallow thick, thin comparatives such as longer/longest, heavier/heaviest, holds more/holds most, short, shorter, shortest, tall, taller, tallest, light, lighter, lightest length, span, cubit centimetre (cm), metre (m) ruler, metre stick, tape measure width, height, depth, size long, short, tall, high, low, wide container, unit, capacity, measuring jug, contains litre (l), half-litre, millilitre (ml) weight, heavy, mass holds more, holds less balance, scales, measuring scale, weigh kilogram (kg), halfkilogram, gram (g) money, coin, pence, penny, pound, pay, change, buy, sell, price, spend time sequence, order, morning, afternoon, evening midnight, mid-day, noon night, day, week, month, year days of the week, months and seasons of the year clock, hands, watch digital, analogue hour (h), minute (min), second (s) o'clock, half-past, quarter to, quarter past

STEM Sentences:

There are 7 days in a week. There are 12 months in a year.

There are 60 seconds in a minute.

One pound is the same as one hundred pence.

_____ is longer/shorter because _____.

_____ is heavier/lighter because _____.

NC Learning Objectives:

- ☐ recognise and name common 2-D and 3-D shapes, including:
 - ☐ 2-D shapes [for example, rectangles (including squares), circles and triangles]
 - ☐ 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Concrete

Pictorial

Abstract

Sorting shapes, spotting shapes in everyday life

cone

cylinder

sphere

cube

Name the missing shapes in each pattern.

How the 2D Shape

How the 3D Shape

Circle the cubes. Tick the pyramids.

I can see rectangles and squares on the cuboid.

Identifying 2D and 3D shapes

What's my shape?

My shape has 2 curved edges
It has 2 circular faces
It has 1 curved face
A tin of beans is an example

Solving shape problems

If the answer is...
Can you think of an answer using your knowledge of 3D shapes?
What could the question be?

Key Vocabulary:

shape patterns make, build, draw curved, straight hollow, solid flat, corner, point, face, edge, side, round vertex, vertices cube, cuboid, pyramid, cone, cylinder, sphere, triangle, circle, rectangle, square rectangular, triangular, circular pentagon, hexagon, octagon line of symmetry, fold, mirror line, reflection

STEM Sentences:

- A circle has one curved side
- A square has 4 straight sides and 4 vertices.
- A triangle has 3 straight sides and 3 vertices.
- A ____ has ____ sides and ____ vertices.

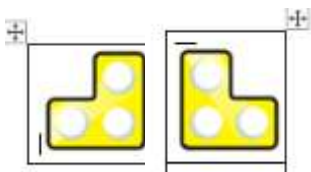
NC Learning Objectives/Key Skills:

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Concrete



Clocks, beebots, numicon, turning instructions



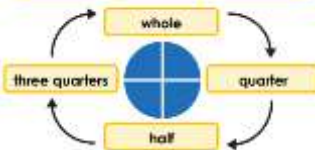
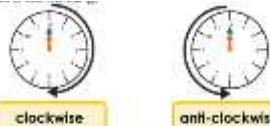
Put your left hand in the air!
The hand that makes an 'L' shape is your left hand.



Pictorial

Introducing language of left and right, up and down through pictures

Which toy is on the right?



Who is correct? Explain how you know.



The car has made a quarter turn clockwise.

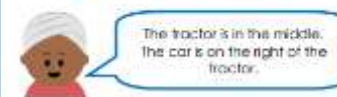
Quarter and half turns

Abstract



Solving abstract problems using positional language

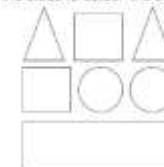
How many different ways can you describe the position of the 2p coin? Use words such as next to, left, right, above, below, between.



The bus needs to move forwards 1 and up 2 to get to here boat.



Use the clues to colour the shapes.



- Use 5 cubes to build a tower.
- Start with a yellow cube.
- Place a blue cube on top of the yellow cube.
- Place a white cube below the yellow cube.
- Place a red cube on the top of the tower.
- Place the green cube in between the yellow and white cube.

Think about where you are sitting in the classroom. What can you see around you? Complete the table.

In front of me	Behind me	To the left of me	To the right of me

- The middle circle is blue.
- The shape up from the right circle is green.
- The shape down from the right triangle is red.
- The shape down from the circles is green.

Key Vocabulary: above, on top of, below halfway, between near, far whole-turn, half-turn, quarter-turn right, left route clockwise, anticlockwise right angle straight line geo-strip, position, direction grid outside, inside beside, next to front, back centre underneath

STEM Sentences:

The shape has turned a quarter/3 quarter/half/whole turn. The £1 coin is to the _____ of the 1p coin. The 50p coin is to the _____ of the 1p coin. The 2p coin is to the _____ of the 50p coin. The _____ is above _____. The _____ is below _____. In between _____ and _____ is _____. Above _____ is _____ and _____. There is nothing between _____ and _____.