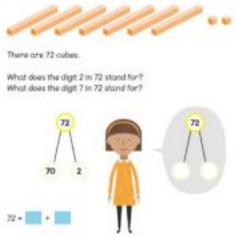
Maths	Year group 2	Autumn 1st half term

Key concepts that will be covered

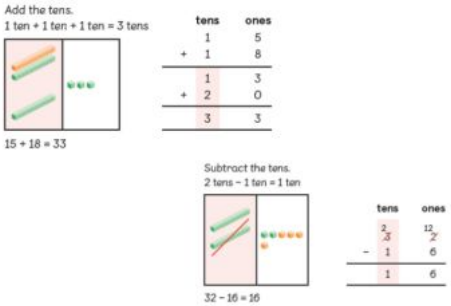
Numbers to 100

We will learn to count to 100, including counting up in 10s. We will compare numbers using what we know about place value knowledge. We will embed our number bonds and apply them. We will explore numbers to see patterns within 100.



Addition and Subtraction

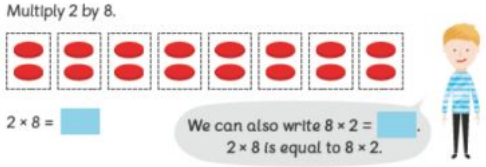
We will learn to add and subtract mentally by applying our number bonds diagrams as well as using the standard column method.



Multiplication of 2, 5 and 10

We will be using concrete apparatus and images to investigate multiplication by 2, 5 and 10. We will learn to look for patterns in multiplication and we will understand the commutative law.

5 × 2 is equal to 2 × 5.



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Arithmetic

Counting

Count in multiples of 2, 3 and 5 from 0.

Count from 0 in: twos; fives; threes.

Complete counting sequences:

Count forwards or backwards in steps of 1 or 10 from any one- or two-digit number

Count forwards in ones from 75 to 92

Count back in ones from 54 to 38

Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$

Count from 0 in steps of $\frac{1}{2}$

When counting from 0 in steps of $\frac{1}{4}$ what comes immediately after $\frac{3}{4}$?

Number Facts

Recall number bonds and related subtraction facts for all numbers to 20

Derive and use related facts to 100

Partition numbers into tens and ones.

Recall and use number bonds to 5 totalling 60 (to support time).

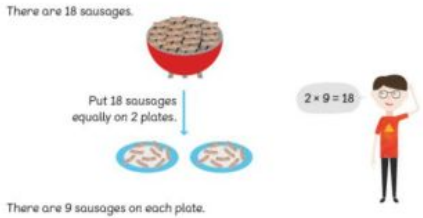
Recall and use multiplication and division facts for 2, 5 and 10 multiplication tables, including recognising odd and even numbers.

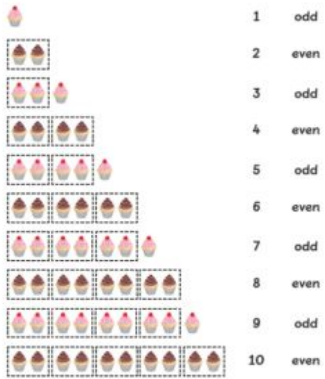
Maths	Year group 2	Autumn 2nd half term

Key concepts that will be covered

Multiplication and Division of 2, 5 and 10

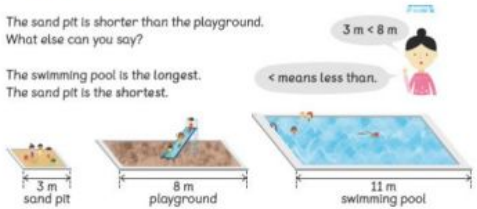
We will learn about both the multiplication and division of 2, 5 and 10. We will look at different ways of sharing, including sharing and grouping before learning about division by 2, 5 and 10. We will also investigate links between multiplication and division and odd and even numbers.





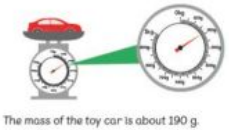
Length

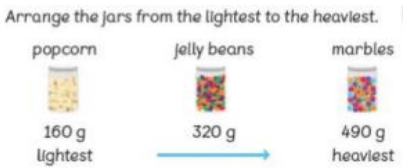
We will deepen our understanding of how to measure length. We will begin by understanding what a metre is and what centimetres are and then progress to using them in real-life contexts



Mass

We will be learning about mass in the context of kilograms and grams. We will learn how to read scales, to compare the weight of different objects and to solve word problems in the context of mass.





Arithmetic

Mental Calculation Strategies – Addition and Subtraction

Count on or back in ones and tens from any given number, e.g. (36 + 40 =)

36 + 40 = __ 30 + 48 = __

Partition and combine multiples of tens and ones.

40 + 37 40 add **30** and **7** = 40 add 30 add 7

78 – 42 78 take away **40** and **2** = 78 take away 40 take away 2

Reorder numbers in a calculation

28 + 3 doesn't need reordering as the greater number is first already

2 + 17 reorder as 17 + 2

Find a small difference by counting up from the lesser to the greater number

52 – 47 74 – 66

Begin to bridge through 10 when adding a single digit number (partitioning, e.g. 58 + 5 = 58 + 2 + 3)

58 + 5 = 58 + 2 = 60 60 + 3 = 63

46 + 7 = 46 + 4 = 50 50 + 3 = 53

Add or subtract 9 or 11 and 19 or 21 by rounding and compensating.

34 + 9 as 34 + 10 – 1

34 + 11 as 34 +10 + 1

77 + 19 as 77 + 20 – 1, or 77 + 10 + 10 – 1

46 – 9 as 46 – 10 + 1

46 – 11 as 46 – 10 – 1

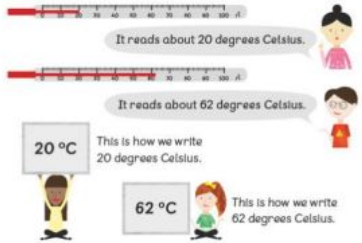
63 – 19 as 63 – 20 + 1, or 63 – 10 – 10 + 1

Maths	Year group 2	Spring 1st half term

Key concepts that will be covered

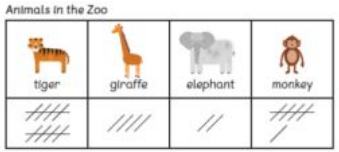
Temperature

We will learn to measure temperature. We will learn about Celsius, how to read thermometers and we will look at what kinds of temperatures we can measure.



Picture Graphs

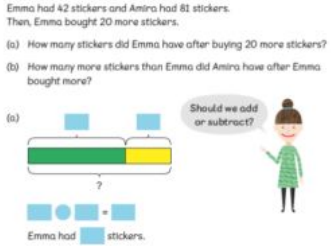
We will learn how to read, interpret, analyse and construct our own picture graphs with confidence.



Animal	Number of animals
tiger	10
giraffe	4
elephant	2
monkey	6

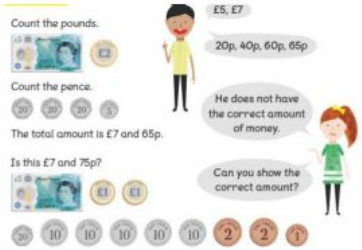
More Word Problems

We will be learning to use addition and subtraction to help solve word problems. We will learn to make the decision to use addition and subtraction. We will use the bar models to think about what is the same and what is the difference.



Money

We will learn to write and count money and we will learn to represent money using £ and p. We will be reinforcing previous counting methods using 5s and 10s to count quickly and efficiently. We will learn to show equal amounts of money and to exchange money. We will solve problems involving money using bar modelling.



Arithmetic

Apply counting in twos, threes, fives and tens to solve multiplication problems with a repeated addition context.

5 x 4 count in fives until fact is known
3 x 10 count in tens until fact is known
7 x 3 using a representation then count in threes
2 x 9 count in twos until fact is known

Share an amount into equal parts.

24 ÷ 2 share out until fact is known
40 ÷ 10 share out until fact is known
18 ÷ 3 using a representation to share 18 into 3 equal parts

Separate an amount into equal groups using repeated subtraction.

24 ÷ 2 repeated subtraction until fact is known
40 ÷ 10 repeated subtraction until fact is known
18 ÷ 3 repeated subtraction to find how many 3s are in 18
I have 24 sweets. How many children would get 2 sweets?

Derive and use doubles of simple two-digit numbers.

Double 43 is double 40 (80) plus double 3 (6) = 86
24 add 24 is double 20 (40) plus double 4 (8) = 48
2 x 33 (two lots of 33) is double 30 (60) plus double 3 (6) = 66

Derive and use halves of simple two-digit numbers using even numbers.

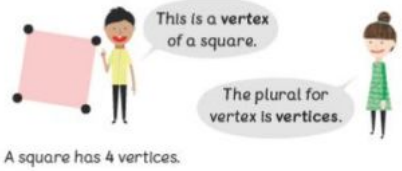
Half of 64 is half of 60 (30) plus half of 4 (2) = 32
Halve of 28 is half of 20 (10) plus half of 8 (4) = 14
46 ÷ 2 is half of 40 (20) plus half of 6 (3) = 23

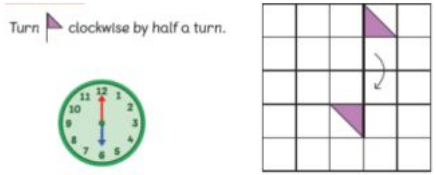
Maths	Year group 2	Spring 2nd half term

Key concepts that will be covered

Two Dimensional Shapes

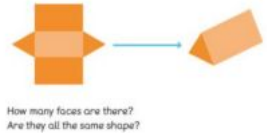
We will be learning about 2-D shapes and their different properties. We will explore how to draw shapes, make patterns with shapes and turn shapes using familiar language. We will be identifying sides of shapes and their vertices before moving on to lines of symmetry. We will recreate shapes using blocks and sorting the basic shapes before we learn to draw shapes using square grids and dot grids.





Three Dimensional Shapes

Following on from our learning about 2D shapes, we will be learning to recognise, describe and group 3-D shapes, forming structures with them and making patterns using 3-D shapes.

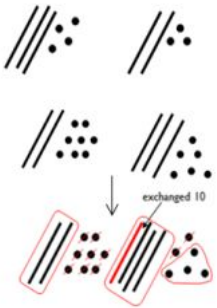


How can we use the shapes to form different structures?

Arithmetic

Add two, two-digit numbers

34 + 23 = ?
The units/ones are added first 4 + 3 = 7
The tens are added next
30 + 20 = 50
Both answers are put together 50 + 7 = 57



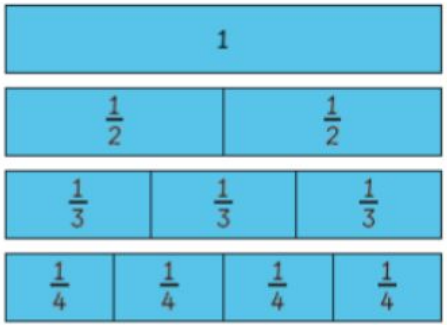
28 + 36 = ?
The units/ones are added first
8 + 6 = 14 with ten units/ones exchanged for 1 ten.
A ring is put around the units/ones not exchanged – this is the units part of the answer. The tens are then added, including the exchanged ten, to complete the sum.

Maths	Year group 2	Summer 1st half term

Key concepts that will be covered

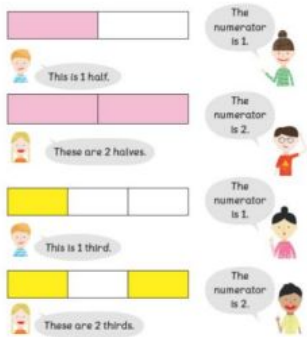
SATs

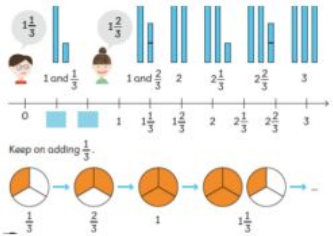
We will take two standardised assessment tasks (SATs) – one arithmetic paper and one reasoning paper.



Fractions

We will embed our understanding that fractions are equal parts and will focus on halves, quarters and thirds. We will learn to name fractions of the same denominations. We will understand how many quarters, halves and thirds make a whole. We will explore how to order and compare fractions. We will count in fractions and begin to learn how to find fractions of a set of objects or part of a quantity.



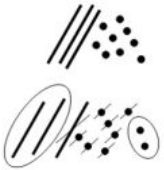


Arithmetic

Subtract a two-digit number from a two-digit number

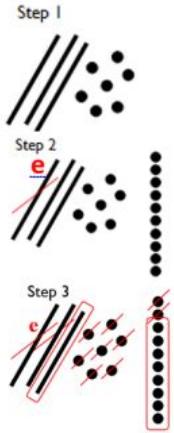
39 – 17 = ?

39 is drawn
17 is crossed out
A ring is drawn around what is left to give the answer of 22



37 – 19

37 is drawn
9 units/ones cannot be crossed out, so one ten is crossed out and exchanged for 10 ones which are in a line.
e is written next to the exchanged ten.
19 is crossed out
A ring is drawn around what is left to give the answer of 18

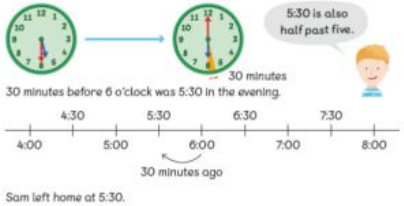


Maths	Year group 2	Summer 2nd half term

Key concepts that will be covered

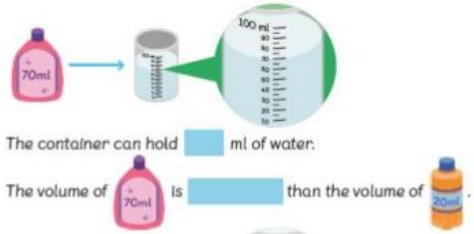
Time

We will learn to tell the time to the nearest 5 minutes on analogue clocks. We will learn how to find the duration of time, the end of a length of time, the beginning of a length of time and, finally, compare lengths of time.



Volume

We will learn to compare volumes of containers, measuring in l and ml and solving word problems associated with volume.



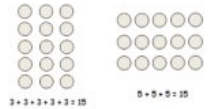
Arithmetic

Recognise multiplication as real arrays and understand that multiplication is repeated addition and the total can be found by counting in equal steps/groups.

How many eggs are needed to fill the box?
How many eggs would fill two boxes?

Children arrange items into equal groups and count to find the total.

Children understand how arrays can show repeated addition of rows and/or columns and that multiplication is commutative i.e. that 3 x 5 gives the same answer as 5 x 3



Represent division calculations as grouping (repeated subtraction) and use jottings to support their calculation. Introduce simple remainders as the items are shared into equal parts, but some may be left over

12 ÷ 3 = ?

Children begin to read this calculation as, 'How many groups of 3 are there in 12?'

At this stage, children will also be introduced to division calculations that result in remainders.

13 ÷ 4 = 3 remainder 1