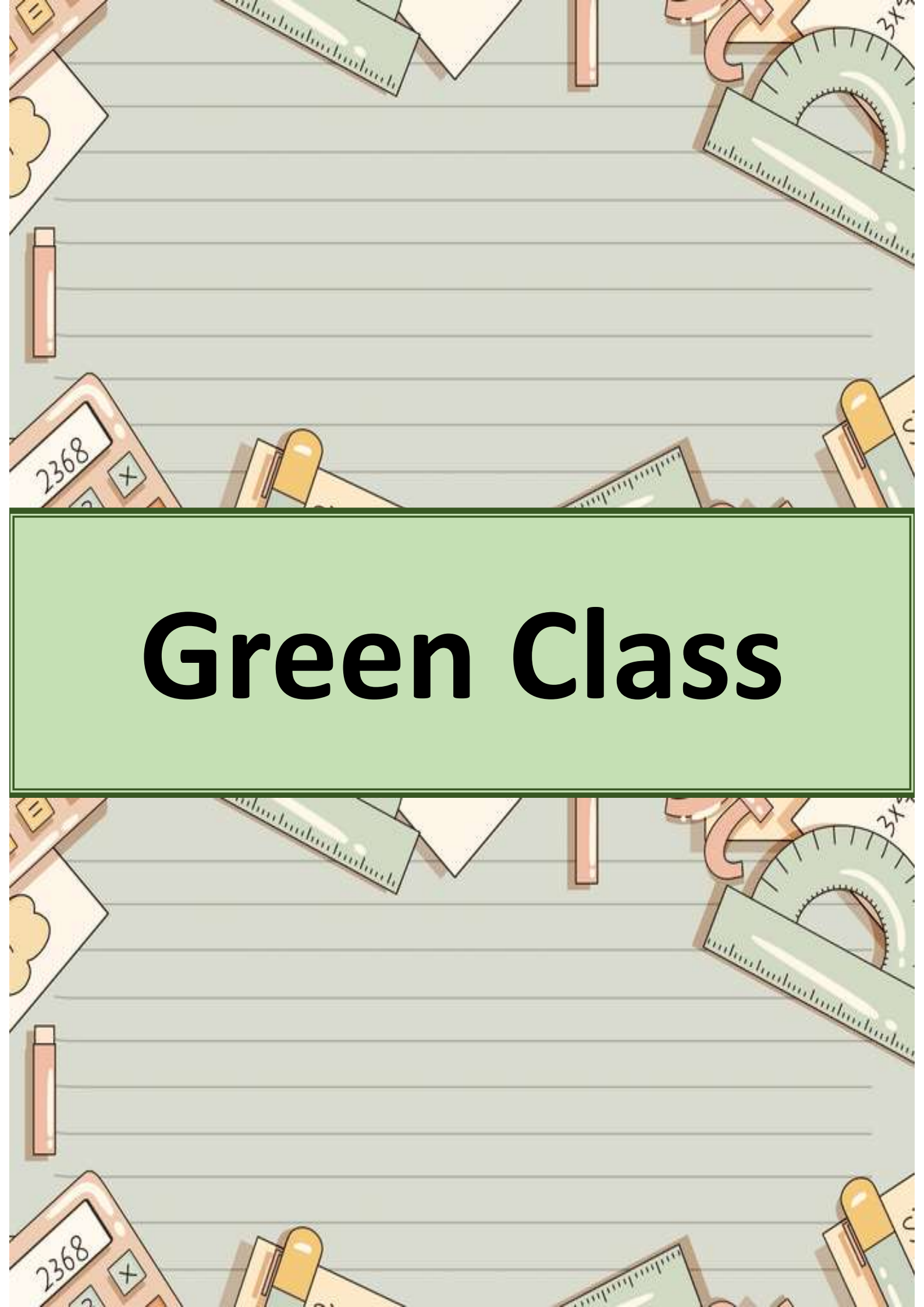


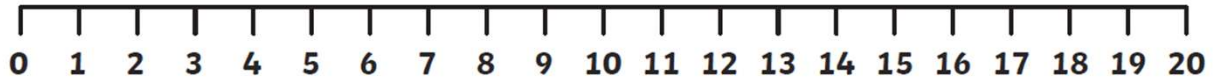
The background of the page is a light gray surface with horizontal lines, resembling a notebook. It is decorated with various school supplies: a green ruler, a protractor, a calculator showing '2368', a pencil, a paperclip, and a small notepad with a cloud drawing. These items are scattered around the edges of the page.

Green Class

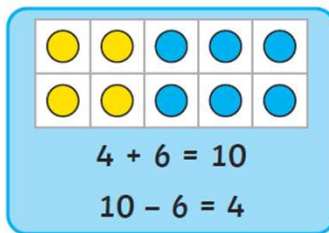
Addition and Subtraction: Stage 1

Addition and Subtraction

Knowledge Organiser

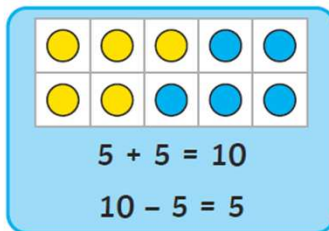
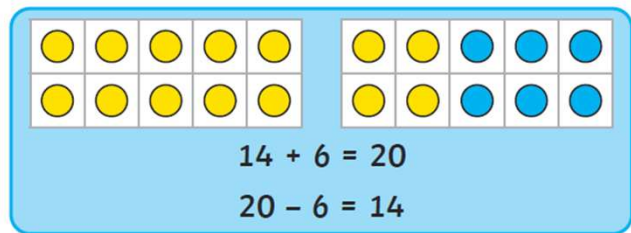


Number Bonds

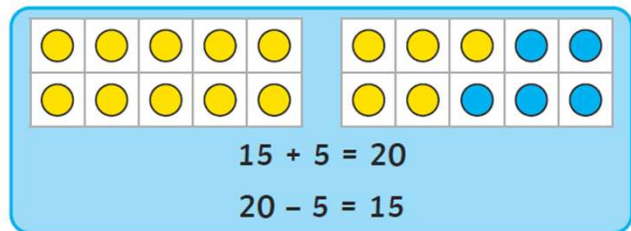


$$4 + 6 < 14 + 6$$

$$14 = 20 - 6$$

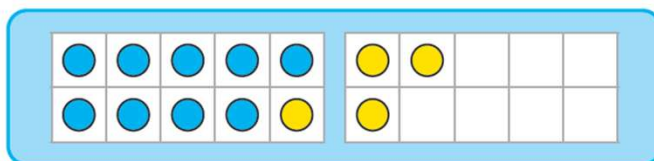


$$20 - 5 > 20 - 6$$



Addition and Subtraction

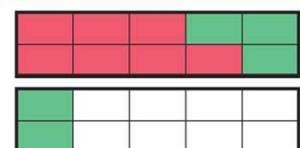
Knowledge Organiser



I partitioned 4 into 1 and 3.

$$9 + 1 = 10$$

$$10 + 3 = 13$$



I partitioned 5 into 2 and 3.

$$12 - 2 = 10$$

$$10 - 3 = 7$$



Addition and Subtraction: Stage 2

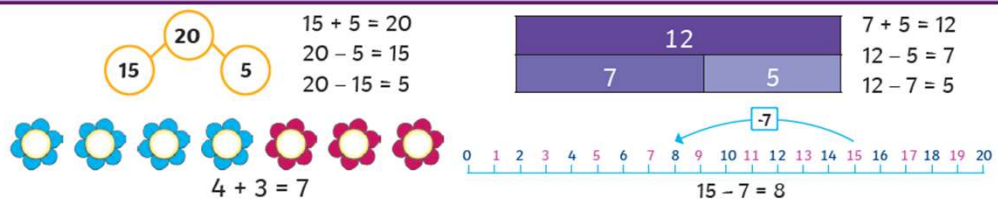
Addition and Subtraction

Knowledge Organiser

Key Vocabulary

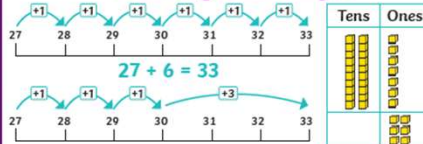
Add
Total
Make
Plus
Sum
More
Altogether
Difference
Leave
Subtract
Difference between
Less
Minus
Take away
Mentally, Orally
Column Addition
Column Subtraction
Estimate
Inverse operation
Solve problems
Number facts
Place Value

Addition and Subtraction Bonds to 20

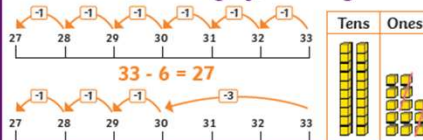


Methods

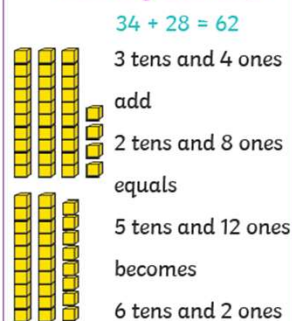
Add 2-digit and 1-digit



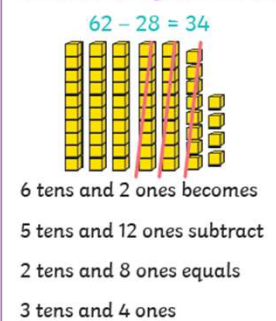
Subtract 1-digit from 2-digit



Add 2-digit numbers



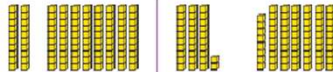
Subtract 2-digit numbers



Addition and Subtraction Bonds to 100



2 + 8 = 10
so 20 + 80 = 100

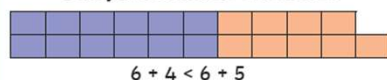


Addition and Subtraction

Knowledge Organiser

Mental Methods

Compare Number Sentences



Related facts

5 + 3 = 6 + 2
5 + 4 = 9 so 50 + 40 = 90

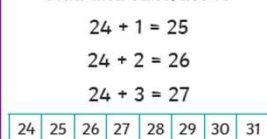


Add 3 1-digit numbers

9 + 5 + 3 = 17

More or Less/ Add and Subtract 1s and 10s

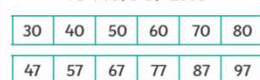
Add and subtract 1s



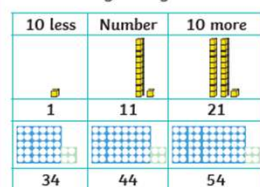
There are 7 flowers in a vase. One more is added. Now there are 8 flowers.



10 More or Less



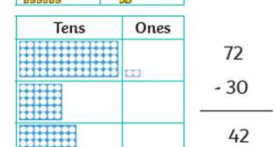
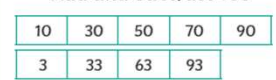
The ones digit stays the same.



Take care when crossing hundreds:

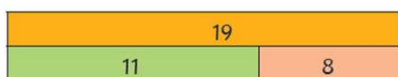


Add and Subtract 10s



Crossing hundreds:
74 94 114 134

Check Calculations



19 - 8 = 11 can be checked using 8 + 11 = 19



32 + 5 = 82 x Spot that 5 tens have been added not 5 ones

28 - 26 = 12 x Spot that 28 and 26 are very close together, so difference won't be 12.

37 - 4 = 41 x Spot that if subtracting 4 the answer will be smaller.

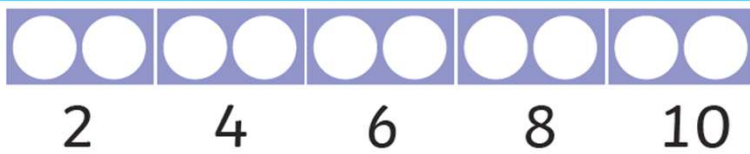
68 - 40 = 64 x Spot that 4 ones have been subtracted and not 4 tens.

Multiplication and division: Stage 1

Multiplication and Division

Knowledge Organiser

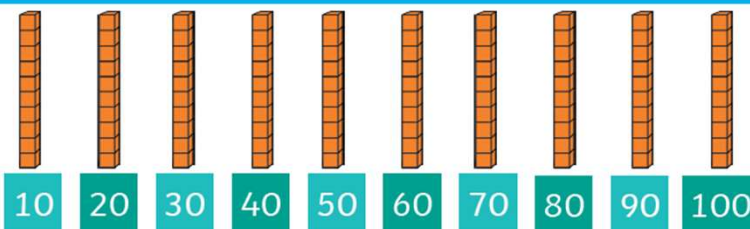
Count in 2s



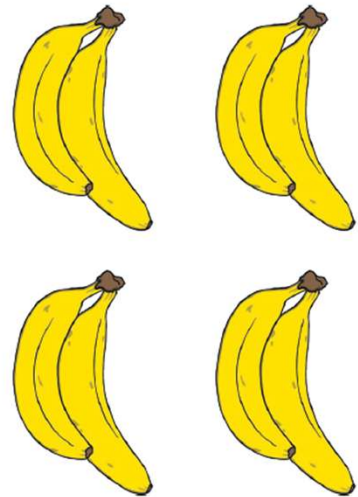
Counting in 5s



Count in 10s



Make Equal Groups

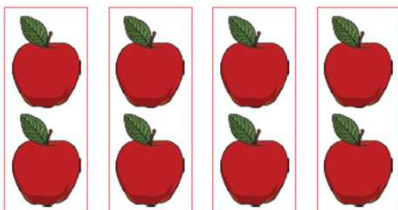


There are 4 equal groups of 2 bananas.

Multiplication and Division

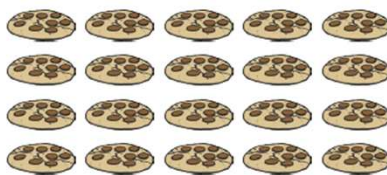
Knowledge Organiser

Add Equal Groups



$$2 + 2 + 2 + 2 = 8 \text{ apples}$$

Make Arrays



4 rows of 5 = 20 cookies

5 columns of 4 = 20 cookies

Make Doubles



double 1 is 2

$$1 + 1 = 2$$

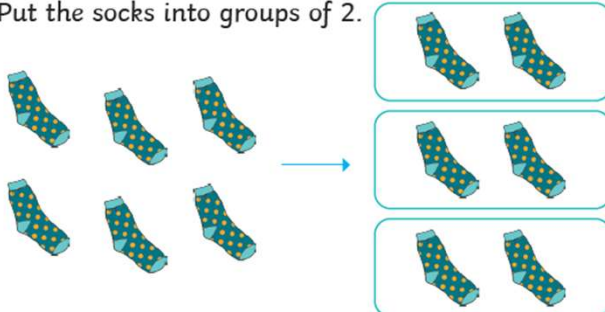


double 5 is 10

$$5 + 5 = 10$$

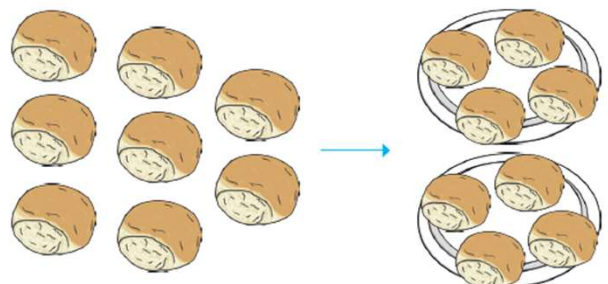
Group Equally

Put the socks into groups of 2.

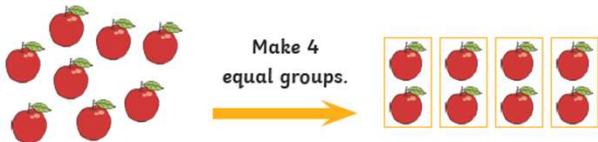
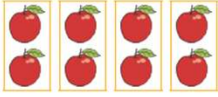


Share Equally

Share the buns equally between the 2 plates.



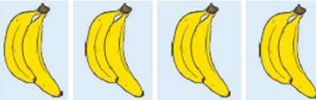
Multiplication and division: Stage 2

Multiplication and Division		Knowledge Organiser
Key Vocabulary	Recognise Equal Groups	Make Equal Groups
groups	 5 equal groups with 3 in each group	 Make 4 equal groups.
equal groups	 2 equal groups with 4 in each group	Add Equal Groups
lots of	 4 equal groups of 10	 $2 + 2 + 2 + 2 = 8$ apples
arrays	 6 equal amounts of 5 pence	The Multiplication Symbol
repeated addition		 $4 \times 2 = 8$ $2 \times 4 = 8$ 8 apples
multiplication		 $2 \times 5 = 10$ $5 \times 2 = 10$ 10 cookies
times tables		
		

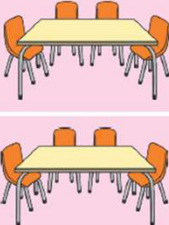
Multiplication and Division

Knowledge Organiser

Multiplication from Pictures



4 lots of 2 = 8



2 lots of 4 = 8

Use Arrays



4 rows of 10 = 40
10 columns of 4 = 40

The 2 Times Table



6 lots of 2 = 12

2	4	6	8	10	12	14	16	18	20	22	24
---	---	---	---	----	----	----	----	----	----	----	----

The 5 Times Table



9 lots of 5 = 45

5	10	15	20	25	30	35	40	45	50	55	60
---	----	----	----	----	----	----	----	----	----	----	----

The 10 Times Table



7 lots of 10p = 70p

10	20	30	40	50	60	70	80	90	100	110	120
----	----	----	----	----	----	----	----	----	-----	-----	-----

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Number and Place Value: Stage 1

Number and Place Value within 100

Knowledge Organiser

Counting to 100

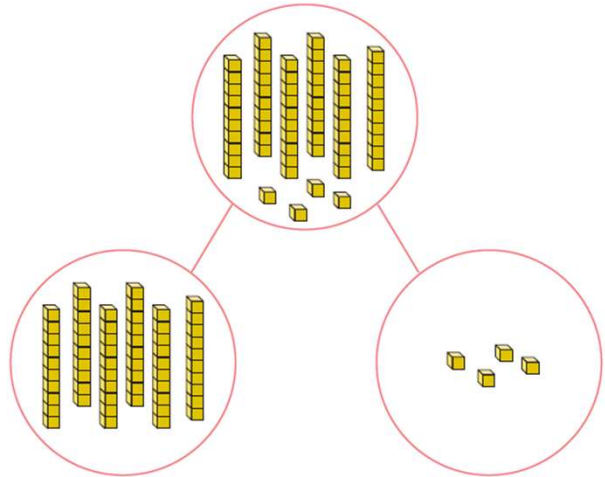
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

One more than 92 is 93.

One less than 100 is 99.

Partitioning

64 has 6 tens and 4 ones

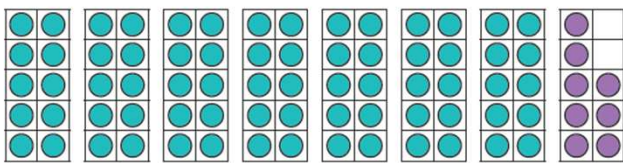


Tens	Ones
6	4

Number and Place Value within 100

Knowledge Organiser

Comparing Numbers

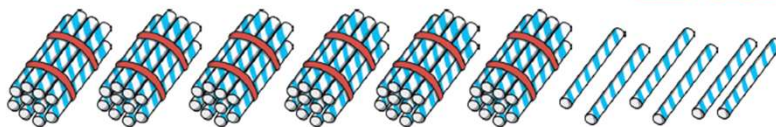
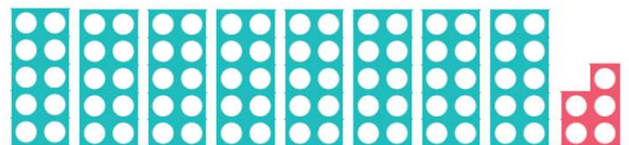


>



Tens	Ones
6	4

<



=

sixty-six

Ordering Numbers

smallest to greatest → 55, 67, 89, 91, 100

greatest to smallest → 99, 82, 73, 68, 50

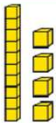
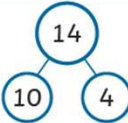
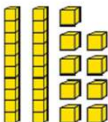
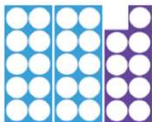
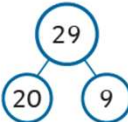
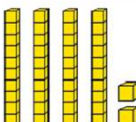
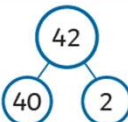
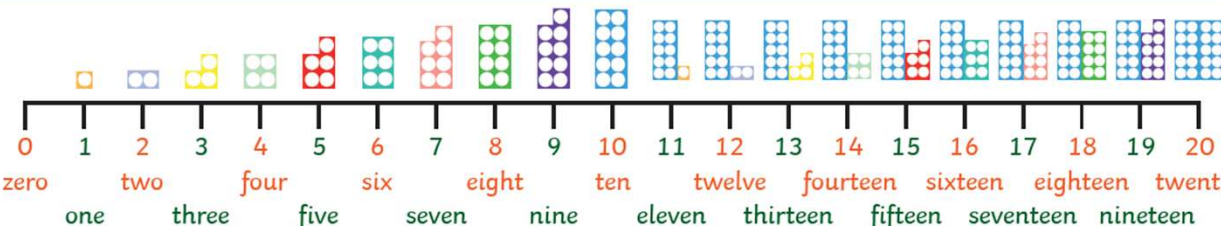
< is less than
= is equal to
> is more than



Number and Place Value

Value: Stage 2

Number and Place Value		Knowledge Organiser		
Key Vocabulary	2-Digit Numbers	Compare Numbers		
hundreds	26	Tens Ones 36 = 36 equals	Tens Ones	
tens	twenty six	26 < 34 less than		
ones	20	6	24 > 19 greater than	
zero				
place value				
greater than				
less than				
order				
partition				
digit				
	Counting in 2s 0 2 4 6 8 10 12 14 16 18 20 Counting in 3s 0 3 6 9 12 15 18 21 24 27 30 Counting in 5s 0 5 10 15 20 25 30 35 40 45 50 Counting in 10s 0 10 20 30 40 50 60 70 80 90 100	36 37 38 39 40 41 42 43 44 37 < 39 < 42 45 48 52 53 61 smallest greatest		

Number and Place Value				Knowledge Organiser					
Read, Write and Represent Numbers to 100									
14	fourteen	one ten four ones			<table border="1"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td></td><td></td></tr></tbody></table> 	Tens	Ones		
Tens	Ones								
									
29	twenty-nine	two tens nine ones			<table border="1"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td></td><td></td></tr></tbody></table> 	Tens	Ones		
Tens	Ones								
									
42	forty-two	four tens two ones			<table border="1"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td></td><td></td></tr></tbody></table> 	Tens	Ones		
Tens	Ones								
									
 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 zero one two three four five six seven eight nine ten eleven twelve thirteen fourteen fifteen sixteen seventeen eighteen nineteen twenty									
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Mass, Capacity and Temperature: Stage 2

Mass, Capacity and Temperature

Knowledge Organiser

Key Vocabulary

mass

gram

kilogram

lighter

heavier

capacity

volume

millilitre

litre

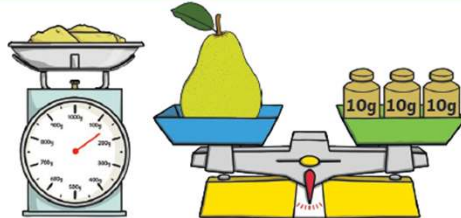
temperature

Celsius

degrees

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Mass



We use scales to measure **grams**.

A gram is a small unit of measurement that we use to measure how heavy or light something is.

We can write gram as **g**.

We measure the following using grams:



15g > 10g

We also use scales to measure **kilograms**.

A kilogram is a larger unit of measurement that we use to measure how light or heavy something is.

We can write kilogram as **kg**.

We measure the following using kilograms:



1kg < 3kg

Mass, Capacity and Temperature

Knowledge Organiser

Capacity

Capacity is the amount of liquid a container can hold.

Volume is how much liquid is in the container.

Millilitres



We can use a measuring cylinder to measure very small volumes.

We measure these in millilitres.
We write this as ml.

1000ml = 1l



Litres



We can use a jug to measure larger volumes.

We measure these in litres.
We write this as l.

1000ml = 1l



quarter full



half full



full

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25ml < 250ml 10l > 2l

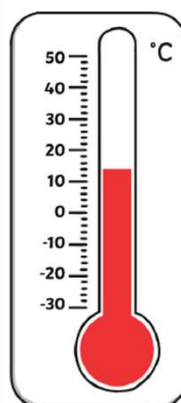
Temperature

Temperature is a measure of heat.

Thermometers are used to measure temperature.

We usually measure temperature in **degrees Celsius (°C)** but some parts of the world use degrees Fahrenheit (°F).

We can measure the temperature of air, liquids or objects using a thermometer.



Most thermometers have small tubes and a bulb of liquid at the bottom. The hotter the temperature, the higher the liquid from the bulb rises in the tube. There are markings along the side of the glass tube that show the temperature.

