

Maths Learning Organiser

Year 1



Yearly Progression: 	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number: Place Value (within 10) Number: Addition and Subtraction (within 10)	Number: Addition and Subtraction (within 10) Geometric Number: Place Value (within 20)	Number: Addition and Subtraction (within 20) Number: Place Value (within 50)	Number: Place Value (within 50) Measurement: Length and height Measurement: Weight and volume	Number: Place Value (within 50) Measurement: Length and height Measurement: Weight and volume	Number: Multiplication and Division Number: Fractions Geometry: Position and Direction

Links to wider curriculum:
 Computing-Sorting and organising objects by size, colour and shape.
 Continuous Provision- height, length, weight, capacity, time, money, shape & space
 Geography& History- See David Weatherly planning.
 Science- Pictograms/ Ven diagrams/ Bar charts.

Home learning:





To find out home to access the Home Learning section from, please watch our [YouTube](#) video link.

Home learning lessons follow the White Rose, Lesson by Lesson Progression like in school. Please click below to see, <https://whiterosemaths.com/resources/primary-resources/primary-sols/>

For weekly home learning please click the link below, and then chose the correct unit of work for the term.
<https://whiterosemaths.com/homelearning/year-1/>

Number Talk Key Skills

<p>Instigator</p>  <p>I think because I know that I noticed Today, we are talking about...</p>	<p>Contributor</p>  <p>I agree/disagree with ... because... I like your idea but....</p>	<p>Prober</p>  <p>What do you think? I think differently because...</p>	<p>Summariser</p>  <p>We talked about.... We found that... We agreed that....</p>	<p>Facts for free- making links between number facts and number bonds. Draw on simple conclusions from understanding of work. Predict what might come next. Use manipulatives and images to explain and give reasons. Justify using work examples.</p>
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Number: Addition and Subtraction

National Curriculum

- 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 and pictorial representations, and missing number problems such as $7 = \square - 9$.

Teaching Spine

- Explore the relationship between numbers and introduce children to the important concept of equivalence; focus on the correct use of comparative language, as well as use of mathematical symbols.
- Introduce children to the concept of partitioning which underpins many of the subsequent segments, and build towards use of the part–part–whole model.
- Composition of numbers: Within 10, within 20, within 50, within 100.
- Addition and subtraction using part whole models, number lines and tens frames.



Efficient Methods that we will use... (Please see calculation policy)

Part-Whole Models

Number lines

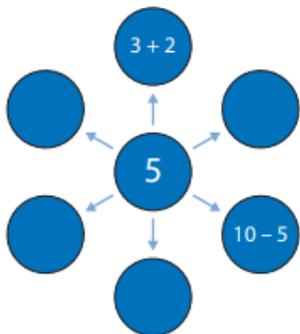
Crossing out subtraction

Tens frame addition and subtraction

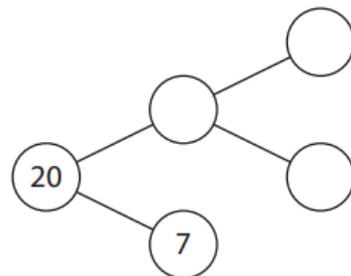
Examples of Greater Depth...

If you know one fact, what other facts do you know?

Complete:



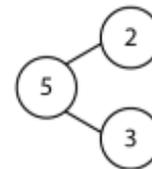
Complete:



Now create a similar diagram.
Can you extend your diagram?

Important Images...

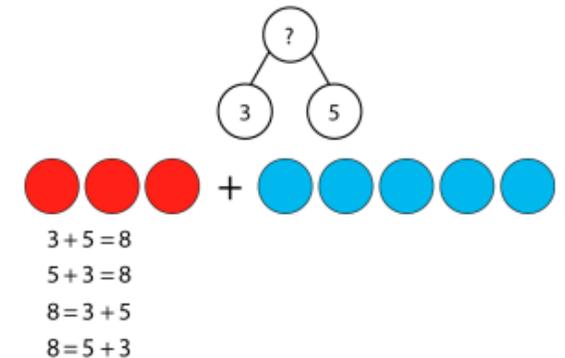
Cherry representation:



Bar model:



There are three ducks in one pond and five ducks in the other pond. How many ducks are there altogether?



Number: Multiplication and Division

National Curriculum

- 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.
- Through grouping and sharing small quantities, pupils begin to understand multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities. They make connections between arrays, number patterns, and **counting in twos, fives and tens**.

Teaching Spine

Explore the concept of unitising by counting in units of two, five or ten; investigate how objects can be counted efficiently by counting in units other than one; apply unitising in the context of the low-denomination coins.

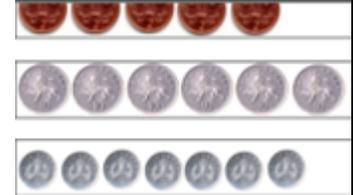


Efficient Methods that we will use...

Counting on in equal steps

Using the numberline to show equal steps of counting on in steps of 2, 5 and 10s.

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



Examples of Greater Depth...

What is half of this amount?



If you counted back from 50 in tens, would you say 0?

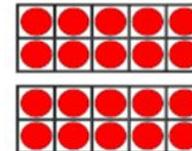
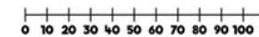
Can you explain?

Lollies cost 5p each.

A pack of 3 lollies costs 13p.

How much money do you save when you buy a pack of 3 lollies instead of 3 single lollies?

Important Images...



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

Number: Place Value

National Curriculum:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- given a number, identify one more and one less
- identify and represent numbers using objects and pictorial representations including the number line,
- and use the language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words

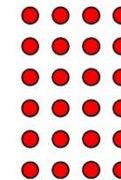
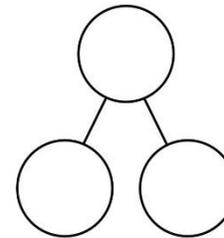
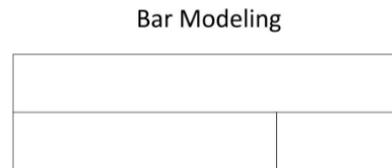
Teaching Spine

- Explore the relationship between numbers and introduce children to the important concept of equivalence; focus on the correct use of comparative language, as well as use of mathematical symbols (<, = and >).
- Introduce children to the concept of partitioning which underpins many of the subsequent segments, and build towards use of the part-part-whole model.
- Apply the partitioning structure to the numbers to five, and introduce children to new concepts such as subitising, ordinality and the bar model.
- Extend the partitioning structure to the numbers six to ten, explore the five-and-a-bit structure of the numbers, and introduce children to the concept of odd and even numbers.
- Progress to the use of abstract notation (+, - and =) as a way of representing the part-part-whole structure.
- Introduce children to addition as augmentation, and subtraction as reduction (take away), using a 'first..., then..., now...' story representation and abstract notation (+, - and =); explore the inverse nature of the two operations.
- Equip children with a range of useful strategies for addition within ten, including adding and subtracting zero and one, commutativity, adding and subtracting two to/from odd and even numbers, and doubling and halving.
- Explore multiples of ten, including counting in tens to 100; apply number facts within ten to addition and subtraction for multiples of ten.
- Build on multiples of ten, by introducing non-zero values in the ones place; apply the partitioning structure to these two-digit numbers, decomposing them into tens and ones.
- Explore the ten-and-a-bit nature of the numbers 11–19, using the partitioning structure; apply number facts within ten to addition and subtraction of single-digit numbers to/from the numbers 11–19.



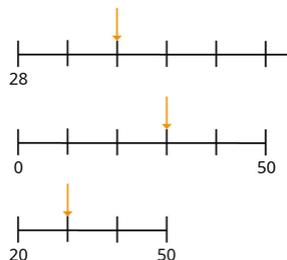
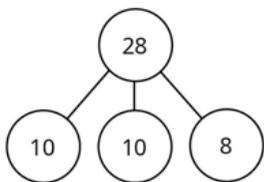
Efficient methods we use: *(Please see calculation policy)*

Placing numbers on a number line
 Part whole model for partitioning
 Hundred square



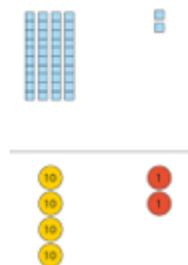
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Examples of Greater Depth



Important Images...

1000	2000	3000	4000	5000	6000	7000	8000	9000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9



Number: Fractions

National Curriculum:

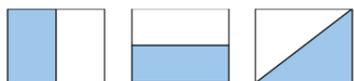
- Recognise, find and name a half as one of two equal parts of an object, shape or quantity.
- Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Teaching Spine:

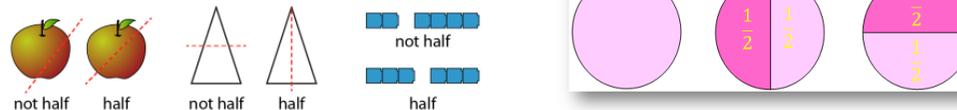
- Name the fraction 'one-half' in relation to a fraction of a length, shape or set of objects.
- Read and write the fraction and relate this to a fraction of a length, shape or set of objects.
- Find half of numbers.



Examples of Greater Depth



Important Images...



Precision Maths:

- Read, write, and interpret mathematical statements involving - + = signs
- Number bonds to 10.
- Add and subtract 1-digit and 2-digit number to 20.
- Counting across 50, backwards and forwards.
- Identifying 1 more and 1 less than any given number to 50.
- Recognise 2D shapes (rectangles, triangles, circles & squares) and 3D shapes (cuboids, cubes, pyramids & spheres).
- Identify & represent numbers using objects and pictorial representations.
- Partition any number up to 50 and beyond into tens and ones.
- Count in steps of 2, 5, and 10
- Doubling numbers