Newington Green and Rotherfield Maths MTP - Year 2

Blue font in Spring/Summer indicates previously untaught objective

Green font indicates cross-curricular links

<table>
<tr><th colspan="3">Autumn 1</th></tr>
<tr><th colspan="3">My Health Life</th></tr>
<tr><th>Number and Place Value
Weeks 1 -2</th><th>Addition and Subtraction
Weeks 3 -4</th><th>Measurement
Weeks 5-6</th></tr>
<tr>
<td>• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward e.g. 65, 60, 55, 50, 45, 40…..
• recognise the place value of each digit in a two-digit number (tens, ones)
• identify, represent and estimate numbers using
• different representations, including the number line
• compare and order numbers from 0 up to 100; use <, > and = signs</td>
<td rowspan="2">• solve problems with addition and subtraction:
-using concrete objects and pictorial representations, including those involving numbers, quantities and measures
-applying their increasing knowledge of mental and written methods
• recall and use addition and subtraction facts to 20 fluently (19 – 7 = 12), and derive and use related facts up to 100 (30 = 90 – 60)
• add and subtract numbers using concrete objects, pictorial</td>
<td>• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
• compare and order lengths, mass, volume/capacity and record the results using >, < and =</td>
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<tr>
<td></td>
<td>Geometry and Position & Direction
Week 7</td>
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• read and write numbers to at least 100 in numerals and in words e.g. forty • use place value and number facts to solve problems	representations, and mentally, including: - a two-digit number and ones 13 + 4 = 17 - a two-digit number and tens 23 + 20 = 43 o two two-digit numbers 24 + 12 = 36 - adding three one-digit numbers 4 + 3 + 6 = 13 • show that addition of two numbers can be done in any order (commutative, e.g. 3 + 4 = 7, 4 + 3 = 7) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems e.g. $\Delta - 14 = 28$	• identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, e.g. a circle on a cylinder and a triangle on a pyramid • compare and sort common 2- D and 3-D shapes and everyday objects

Autumn 2			
Great Fire of London			
Multiplication and Division **Weeks 6-7 8-9**	**Fractions** **Weeks 7-8 10-11**	**Measurement** **Weeks 9-10 12 -13**	**Statistics** **Weeks 11-12 14-15**
• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers e.g. 22 ÷ 2 = 11 • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	• recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity e.g. 1/3 of 30cm = 10cm • write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value e.g. find different ways to make 50p, pupils can	• SCIENCE LINK: To be able to compare and group together a variety of every-day materials on the basis of their simple physical properties. PSHE LINK: LO: To learn about ways of being physically active throughout the day. • interpret and construct simple pictograms (e.g. where the symbol represents 2, 5 or 10 units), tally charts, block diagrams and simple tables SCIENCE LINK: To be able to identify and name a variety of plants and animals in their habitats (including microhabitats).

• show that multiplication of two numbers can be done in any order (commutative, e.g. 5 X 3 = 15, 3 X 5 = 15) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. share 18 counters between 3 children		work out how many £2 coins are needed to exchange for a £20 note • find different combinations of coins that equal the same amounts of money e.g. how many different ways can you make 30p? • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change e.g. I buy a toy for £14; how much change do I get from £20?	• interpret and construct simple pictograms (e.g. where the symbol represents 2, 5 or 10 units), tally charts, block diagrams and simple tables • ask and answer simple questions by counting the number of objects in each • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • ask and answer questions about totalling and comparing categorical data

Spring 1				
Africa				
Number and Place Value **Weeks 1**	**Addition and Subtraction** **Week 2 -3**	**Multiplication and Division** **Week 3-4**	**Fractions** **Week 5**	**Measurement** **Week 6**
• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward e.g. 36, 33, 30, 27…. • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use and = signs	• solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently (19 – 7 = 12), and derive and use related facts up to 100 (30 = 90 – 60)	• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers e.g. circle the odd numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be	• recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity e.g. how long is 1/3 of a ribbon which is 60 cm long? There are 20 sweets. Jon is given 1/3 and Amy is given ½. Who is given the most sweets? • write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.	• choose and use appropriate standard units to estimate and measure temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the

• read and write numbers to at least 100 in numerals and in words e.g. forty-five • use place value and number facts to solve problems	• add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones 27 + 4 - a two-digit number and tens 23 + 30 - two two-digit numbers 34 + 29 - adding three one-digit numbers 7 + 5 + 3 • show that addition of two numbers can be done in any order (commutative, e.g. 3 + 4 = 7, 4 + 3 = 7) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems e.g. $\Delta - 14 = 28$	done in any order (commutative, e.g. 5 X 3 = 15, 3 X 5 = 15) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. share 18 counters between 3 children		• choose and use appropriate standard units to estimate and measure temperature (°C) • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value e.g. make 73p using the fewest coins • find different combinations of coins that equal the same amounts of money e.g. find different ways to make 50p, pupils can work out how many hands on a clock face to show these times. • know the number of minutes in an hour and hours in a day

Spring 2			
Bears			
Geometry **Week 7-8**	**Addition and Subtraction** **Week 9**	**Multiplication and Division** **Weeks 10-11**	**Fractions** **Weeks 12**
• identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line • • identify and describe the properties of 3-D shapes,	• solve problems with addition and subtraction: o using concrete objects and pictorial representations, including those involving numbers, quantities and measures o applying their	• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers e.g. circle the odd numbers • calculate mathematical statements for multiplication and division within	• recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity e.g. how long is 1/3 of a ribbon which is 60 cm long? There are 20 sweets. Jon is given 1/3 and Amy is

including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes e.g. a circle on a cylinder and a triangle on a pyramid • compare and sort common 2-D and 3-D shapes and everyday objects e.g. sort 3-D shapes in different ways such as whether they are prisms, whether they have more than 8 edges…; sort 2-D shapes in different ways such as whether they are quadrilaterals and have line symmetry…. • order and arrange combinations of mathematical objects in patterns GEOGRAPHY LINK: To be able to directional and locational language to describe and locate bear habitats on a map. To design a map of our local area • use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line e.g. pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using	increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently (19 – 7 = 12), and derive and use related facts up to 100 (30 = 90 – 60) • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: -a two-digit number and ones 27 + 4 - a two-digit number and tens 23 + 30 - two two-digit numbers 34 + 29 o adding three one-digit numbers 7 + 5 + 3 • show that addition of two numbers can be done in any order (commutative, e.g. 3 + 4 = 7, 4 + 3 = 7) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems e.g. $\Delta - 14 = 28$	the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative, e.g. 5 X 3 = 15, 3 X 5 = 15) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. share 18 counters between 3 children	given ½. Who is given the most sweets? • write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.

instructions given in right angles			

Summer 1				
Environmental Activists				
Number and Place Value **Week 1**	**Addition and Subtraction** **Weeks 2-3**	**Measurement** **Week 4**	**Statistics** **Week 5**	**Number and Place Value** **Week 6**
• add and subtract numbers using concrete objects, pictorial representations, and mentally, including: o a two-digit number and ones 87 – 9 = o a two-digit number and tens e.g. 76 + 30 o two two-digit numbers e.g. 63 - 29 o adding three one-digit numbers e.g. 9 + 7 + 9 • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.		• choose and use appropriate standard units to estimate and measure temperature (°C) • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value e.g. make 73p using the fewest coins • find different combinations of coins that equal the same amounts of money e.g. find different ways to make 50p, pupils can work out how many £2 coins are needed to exchange for a £20 note • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change e.g. I buy	• SCIENCE LINK: To be able to identify and name a variety of plants and animals in their habitats (including microhabitats). • interpret and construct simple pictograms (e.g. where the symbol represents 2, 5 or 10 units), tally charts, block diagrams and simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • ask and answer questions about totalling and comparing categorical data	•

		a cake for 60p and a biscuit for 25p, how much change will I get from £1? • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.		
Summer 2				
The Blitz				
Addition and Subtraction **Week 7**	**Measurement** **Week 8**	**Multiplication and Division** **Week 9**	**Fractions** **Week 10**	**Weeks 11-12** **Working towards expectations for Y4**
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