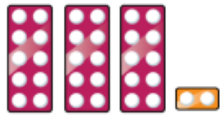
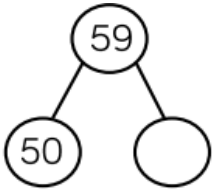
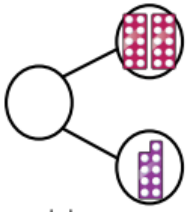
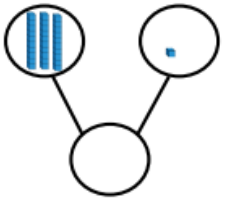
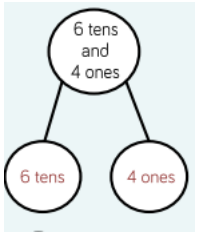
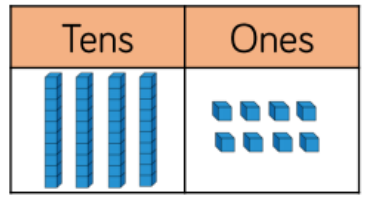
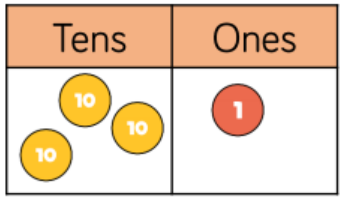
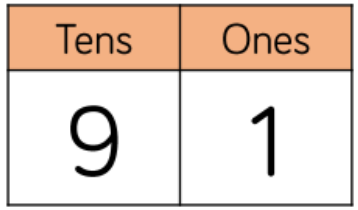
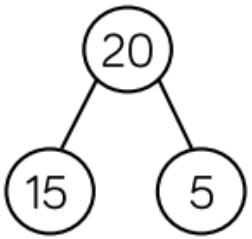
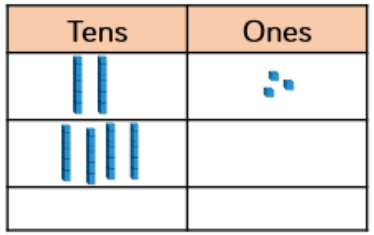
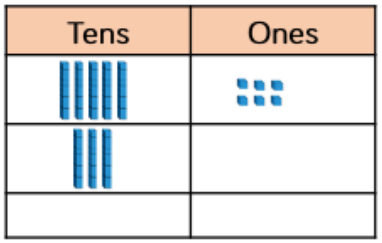
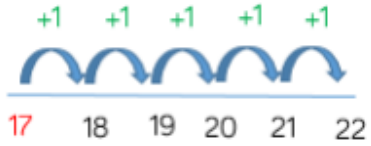
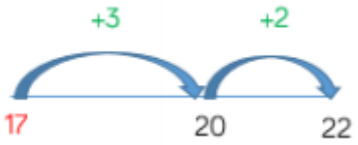
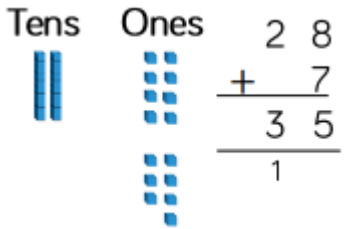
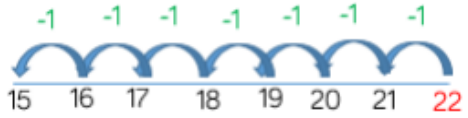
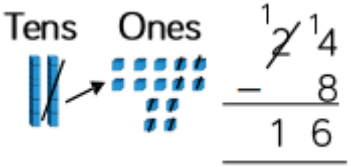
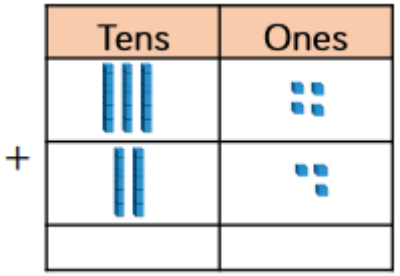
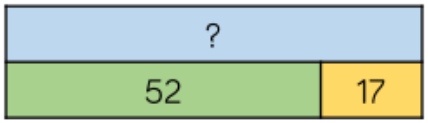
Mathematics Curriculum Progression for Year 2

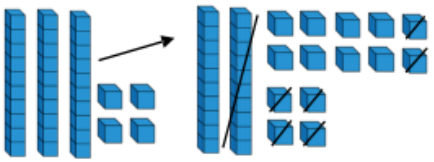
Term	Topic	Knowledge and Skills	Methods and Visual Representations	Vocabulary
1 & 2	Place Value	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Recognise the place value of each digit in a two-digit number (tens, ones) Identify, represent and estimate numbers using different representations, including the number line Compare and order numbers from 0 up to 100; use <, > and = signs Read and write numbers to at least 100 in numerals Read and write numbers to at least 100 in words Use place value and number facts to solve problems Partition two-digit numbers into different combinations of tens and ones using apparatus if needed e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones Use reasoning about numbers and relationships to solve more complex problems and explain his/her thinking e.g. 29 + 17 = 15 + 4 + ?; 'Together Jack and Sam have £14. Jack has £2 more than Sam. How much money does Sam have?' etc.	      	hundred, thousand, threes, fours, eights, tally, sequence, continue, predict, rule, greater than, less than hundreds, one digit number, two digit number, three digit number, place, place value, stands for, represents, exchange exact, exactly

		Recall the multiples of 10 below and above any given 2 digit number e.g. say that for 67 the multiples are 60 and 70	  	

1 & 2	Addition and Subtraction	Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures Solve problems with addition and subtraction applying increasing knowledge of written methods and mental methods where regrouping may be required Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If 7 + 3 = 10, then 17 + 3 = 20; if 7 – 3 = 4, then 17 – 3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 – 14 = 3 and 17 – 3 = 14) Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Add and subtract numbers where no regrouping is required, using concrete objects, pictorial representations, and mentally, including a two-digit number and ones Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and tens	    2 3 + 4 0 _____	facts, tens boundary

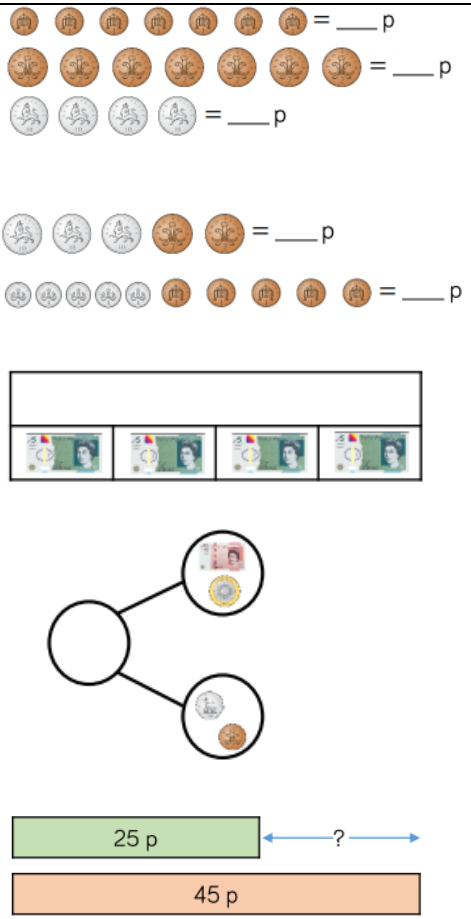
		Add and subtract numbers using concrete objects, pictorial representations, and mentally, including two two-digit numbers Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers Show that addition of two numbers can be done in any order (commutative) 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 solve missing number problems Recall doubles and halves to 20 e.g. knowing that double 2 is 4, double 5 is 10 and half of 18 is 9 Use estimation to check that his/her answers to a calculation are reasonable e.g. knowing that 48 + 35 will be less than 100 Solve missing number problems using addition and subtraction	 $\begin{array}{r} 5\ 6 \\ -\ 3\ 0 \\ \hline \\ \hline \end{array}$ $17 + 5 =$    $\begin{array}{r} 2\ 8 \\ +\ \ 7 \\ \hline 3\ 5 \\ \hline 1 \end{array}$	

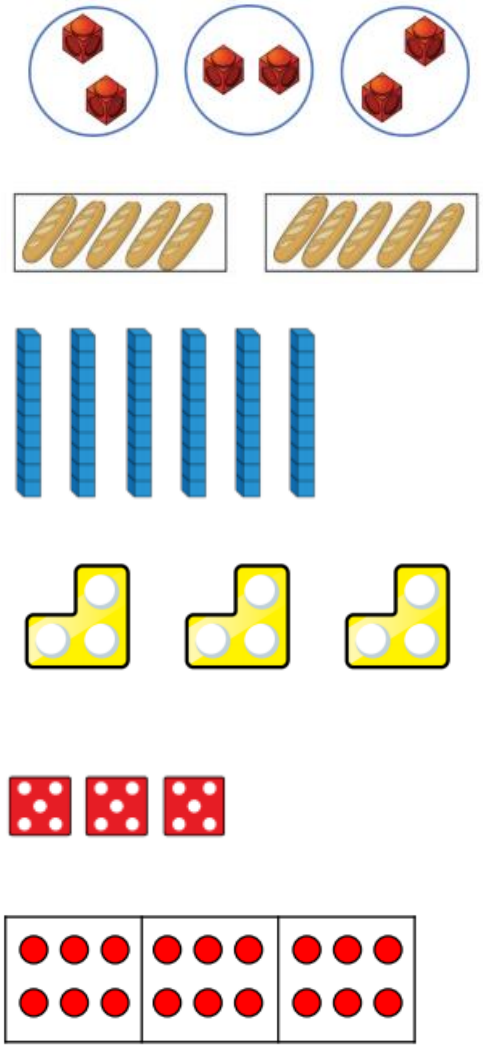
			$22 - 7 =$      	

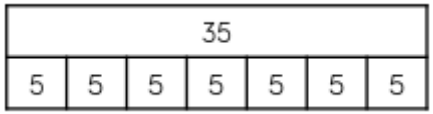
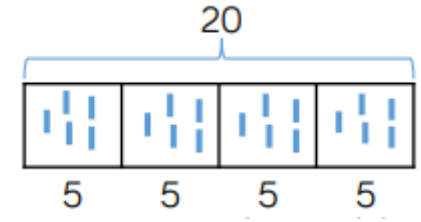
			64 + 17 11 + 70 81 34 – 13 = 34 30 4 –10 –3 28 – 13 15 42 – 15 = 42 30 12 –10 –5 20 7 Take 16 away from 34 	

			$\begin{array}{r} {}^{2}\not{3}\,{}^{1}4 \\ -\,1\;6 \\ \hline 1\;8 \\ \hline \end{array}$ 	

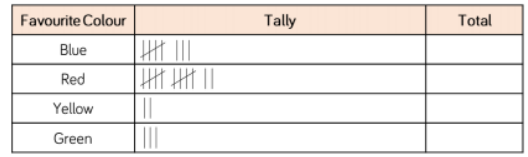
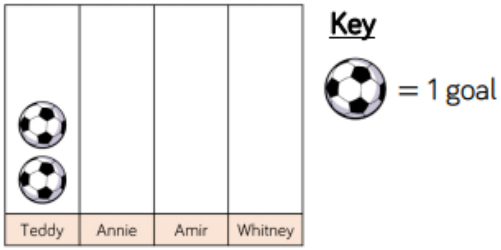
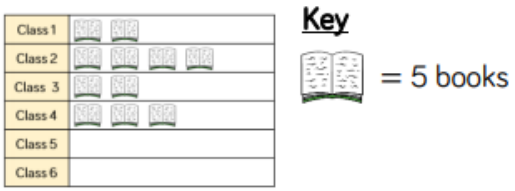
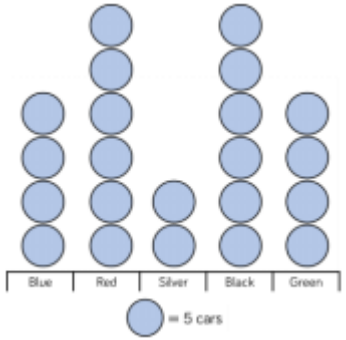
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

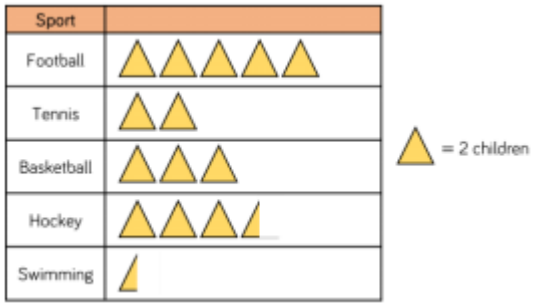
1 & 2	Measure: Money	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change		bought, sold

1 & 2	Multiplication	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even 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 done in any order (commutative) and division of one number by another cannot Solve problems involving multiplication and division, using concrete materials and mental methods Solve problems involving multiplication and division, using arrays, repeated addition and multiplication and division facts, including problems in contexts e.g. knowing that 2 × 7 = 14 and 2 × 8 = 16, explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left Use multiplication and division facts for 2, 5 and 10 to make deductions outside known multiplication facts e.g. know that multiples of 5 have one digit of 0 or 5 and use this to reason that 18 × 5 cannot be 92 as it is not a multiple of 5		groups of, times, once, twice, repeated addition, row, column, multiplication table, multiplication fact

		Solve word problems involving multiplication and division with more than one step e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet Recognise the relationships between addition and multiplication and rewrite addition statements as simplified multiplication statements e.g. 10 + 10 + 10 + 5 + 5 = 3 × 10 + 2 × 5 = 4 × 10		
3 & 4	Division	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even 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 done in any order (commutative) and division of one number by another cannot Solve problems involving multiplication and division, using concrete materials and mental methods Solve problems involving division, using arrays, repeated addition and multiplication and division facts, including problems in contexts e.g. knowing that 14 ÷ 2 = 7 and 16 ÷ 2 = 8, explains that making pairs of socks from 15	  60 ÷ 4 	divide, divided by, divided into, share, share equally, left, left over, each, group in, equal groups of, division fact

		identical socks will give 7 pairs and one sock will be left Use multiplication and division facts for 2, 5 and 10 to make deductions outside known multiplication facts e.g. know that multiples of 5 have one digit of 0 or 5 and use this to reason that 18 × 5 cannot be 92 as it is not a multiple of 5 Solve word problems involving division with more than one step e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet		

3 & 4	Statistics	Interpret and construct simple pictograms, 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	    	tally, graph, block graph, pictogram, represent, label, title, most least, popular, common

			 | Colour	Number of children
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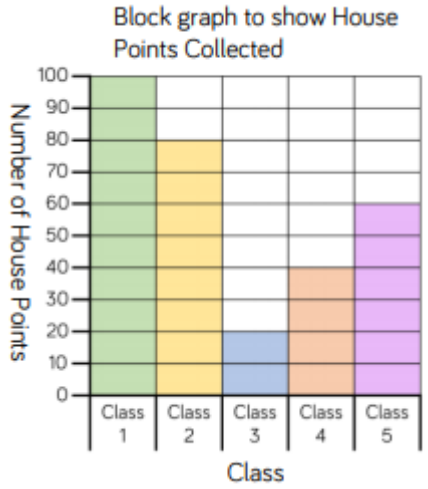
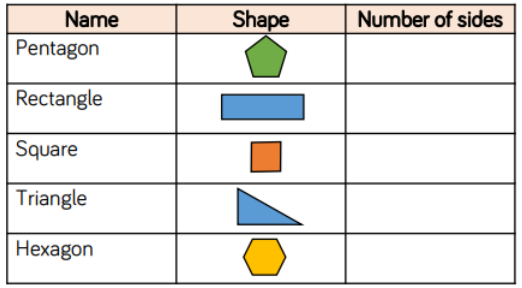
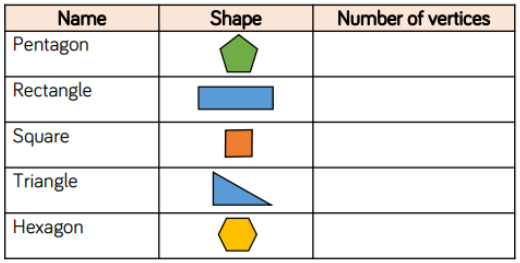
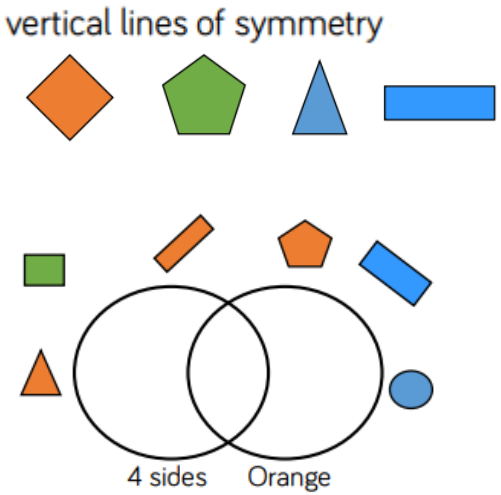
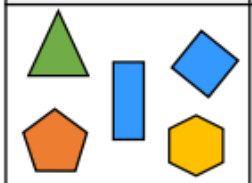
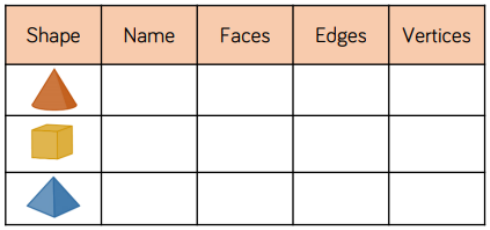
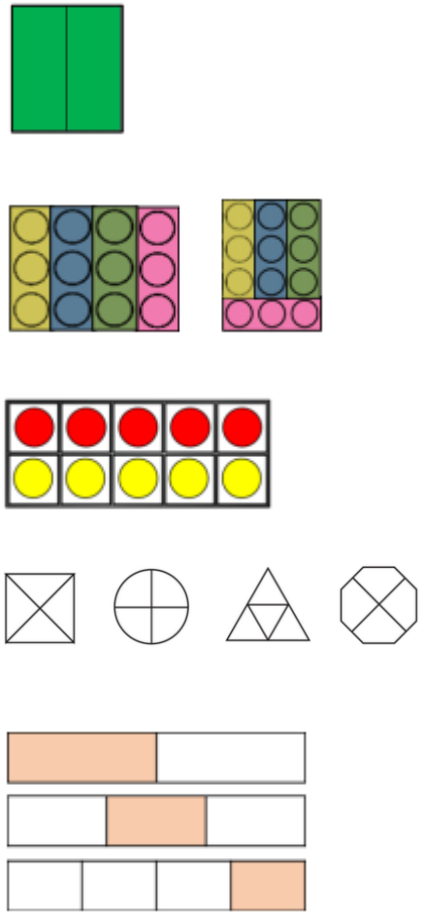
Red	5
Green	8
Blue	7
Yellow	2	 	

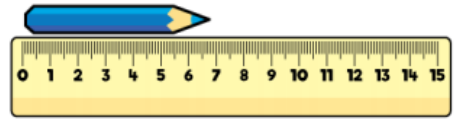
3 & 4	Properties of Shape	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Name some common 2-D and 3-D shapes from a group of shapes or from pictures of the shapes and describe some of their properties (e.g. triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres) 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 describing similarities and differences e.g. find 2 different 2-D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices and describe what is different about them	  	surface, line symmetry rectangular, circular, triangular, pentagon, hexagon, octagon

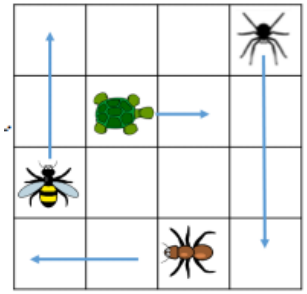
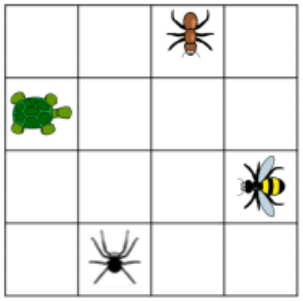
Vertical line of symmetry	No vertical line of symmetry
	

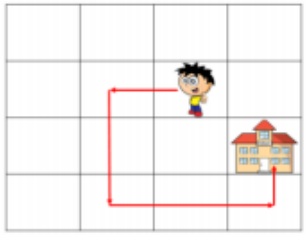
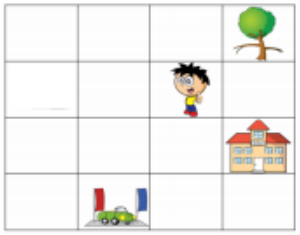
Shape	Name of shape	Number of flat faces	Draw the faces
			
			
			
			

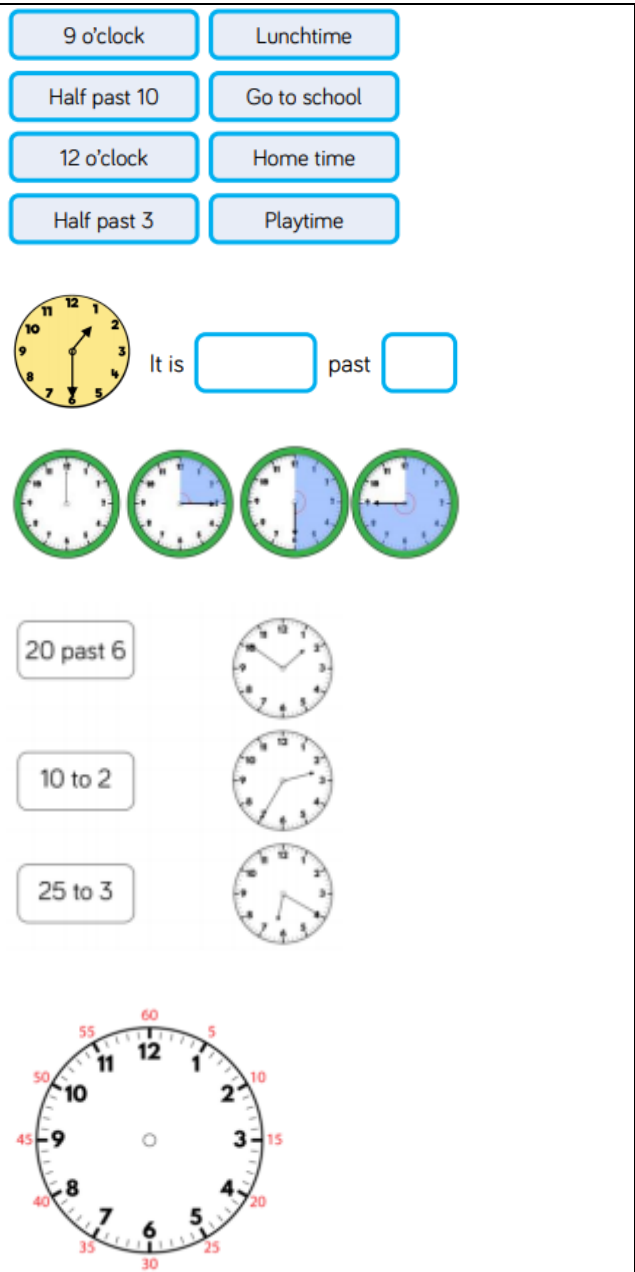
Shape	Name	Edges	Faces
			
			
			

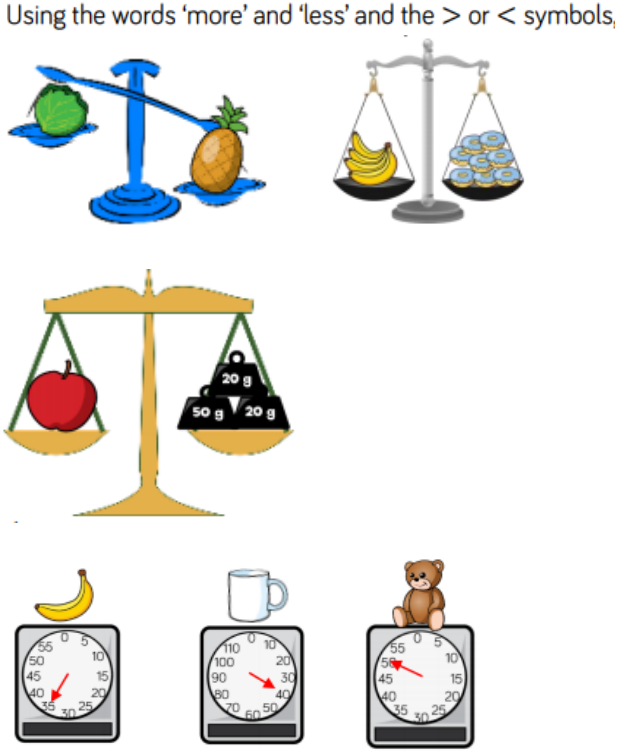
				
3 & 4	Fractions	Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity and demonstrate understanding that all parts must be equal parts of the whole Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2		equivalent fraction, mixed number, denominator, numerator, halves, three quarters, one third, two thirds

3 & 4	Measure: Length and Height	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit, using rulers Compare and order lengths and record the results using >, < and = Read scales in divisions of ones, twos, fives and tens Read scales where not all numbers on the scale are given and estimate points in between	  	measuring scale further, furthest, tape measure

5 & 6	Position and Direction	Order and arrange combinations of mathematical objects in patterns and sequences Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	 The  has moved 1 square _____. The  has moved ___ squares _____. The ____ has moved 2 squares up. The ____ has moved ___ squares down.  Record these movements on the grid using arrows. The  moves 1 square right. The  moves 3 squares forward. The  moves 1 square down. The  moves 1 square up.	route, higher, lower, clockwise, anticlockwise, right angle, straight line

			   Describe the route  Draw a given route  Write own directions for a route  Continue and describe patterns 	

5 & 6	Measure: Time	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 Remember the number of minutes in an hour and the number of hours in a day Read the time on a clock to the nearest 15 minutes		fortnight, minutes past, digital, analogue, timer, seconds

				
5 & 6	Measure: Mass, Capacity and Temperature	Choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using scales, thermometers and measuring vessels Compare and order mass, volume/capacity and record the results using >, < and = Read scales in divisions of ones, twos, fives and tens Read scales where not all numbers on the scale are given and estimate points in between		measuring scale gram millilitre, contains temperature, degree

Using the words 'more' and 'less' and the > or < symbols,