

Year 1

Mastery Overview
Autumn

SOL Overview

As well as providing term by term overviews for the new National Curriculum as a Maths Hub we are aiming to support primary schools by providing more detailed Schemes of Learning, which help teachers plan lessons on a day to day basis.

The following schemes provide exemplification for each of the objectives in our new term by term overviews, which are linked to the new National Curriculum. The schemes are broken down into fluency, reasoning and problem solving, which are the key aims of the curriculum. Each objective has with it examples of key questions, activities and resources that you can use in your classroom. These can be used in tandem with the mastery assessment materials that the NCETM have recently produced.

In addition to this we have also created our own network area where teachers from across the country can share their lesson plans and resources that are linked to our schemes.

We hope you find them useful. If you have any comments about this document or have any ideas please do get in touch.

The White Rose Maths Hub Team

Assessment

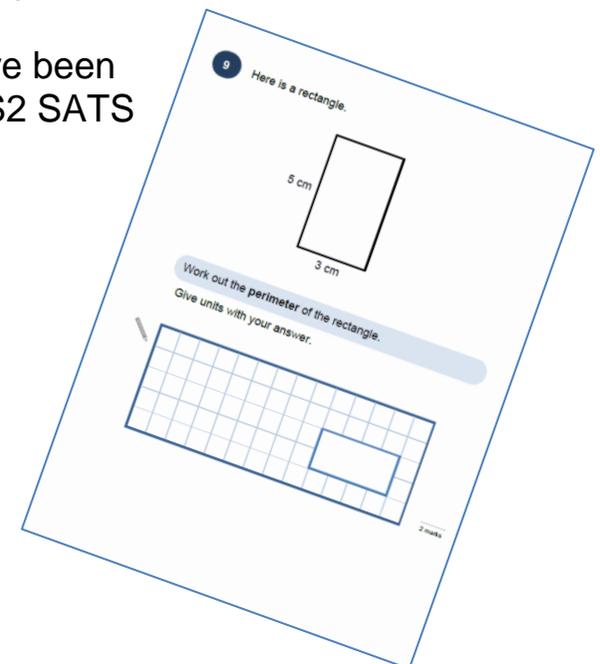
Alongside these curriculum overviews, our aim is also to provide a free assessment for each term's plan. Each assessment will be made up of two parts:

Part 1: Fluency based arithmetic practice

Part 2: Reasoning based questions

You can use these assessments to determine gaps in your students' knowledge and use them to plan support and intervention strategies.

The assessments have been designed with new KS2 SATS in mind. All of the assessments will be ready by 30 November 2015.



Teaching for Mastery

These overviews are designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews;

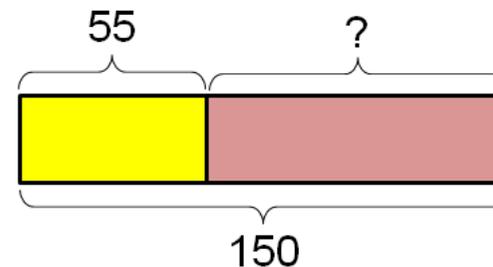
- have number at their heart. A large proportion of time is spent reinforcing number to build competency
- ensure teachers stay in the required key stage and support the ideal of depth before breadth.
- ensure students have the opportunity to stay together as they work through the schemes as a whole group
- provide plenty of time to build reasoning and problem solving elements into the curriculum.

Concrete – Pictorial – Abstract

As a hub we believe that all students, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach.

Concrete – students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.



An example of a bar modelling diagram used to solve problems.

Abstract – with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.

Frequently Asked Questions

We have bought one of the new Singapore textbooks. Can we use these curriculum plans?

Many schools are starting to make use of a mastery textbook used in Singapore and China, the schemes have been designed to work alongside these textbooks. There are some variations in sequencing, but this should not cause a large number of issues

If we spend so much time on number work, how can we cover the rest of the curriculum?

Students who have an excellent grasp of number make better mathematicians. Spending longer on mastering key topics will build a student's confidence and help secure understanding. This should mean that less time will need to be spent on other topics.

In addition schools that have been using these schemes already have used other subjects and topic time to teach and consolidate other areas of the mathematics curriculum.

My students have completed the assessment but they have not done well.

This is your call as a school, however our recommendation is that you would spend some time with the whole group focussing on the areas of the curriculum that they don't appear to have grasped. If a couple of students have done well then these could be given rich tasks and deeper problems to build an even deeper understanding.

Can we really move straight to this curriculum plan if our students already have so many gaps in knowledge?

The simple answer is yes. You might have to pick the correct starting point for your groups. This might not be in the relevant year group and you may have to do some consolidation work before.

These schemes work incredibly well if they are introduced from Year 1 and continued into Year 2, then into Year 3 and so on.

NCETM Mastery Booklets

In addition to the schemes attached the NCETM have developed a fantastic series of problems, tasks and activities that can be used to support 'Teaching for Mastery'. They have been written by experts in mathematics.

It will also give you a detailed idea of what it means to take a mastery approach across your school. Information can be found on the link below.

<https://www.ncetm.org.uk/resources/46689>



WRMH Primary Network

Over the past 12 months we have been working with a company MyFlo to develop a free online platform where teachers from across our region (and wider) can share their own resources and lesson plans based on this new curriculum. All our overviews, schemes and assessment materials will be made available on the MyFlo network.

Everyone Can Succeed

As a Maths Hub we believe that all students can succeed in mathematics. We don't believe that there are individuals who can do maths and those that can't. A positive teacher mindset and strong subject knowledge are key to student success in mathematics.

More Information

If you would like more information on 'Teaching for Mastery' you can contact the White Rose Maths Hub at mathshub@trinityacademyhalifax.org

We are offering courses on:

- Bar modelling
- Teaching for Mastery
- Year group subject specialism intensive courses – become a maths expert.

Our monthly newsletter also contains the latest initiatives we are involved with. We are looking to improve maths across our area and on a wider scale by working with the other Maths Hubs across the country.

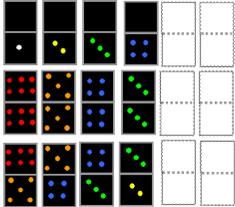
Year 1 Overview

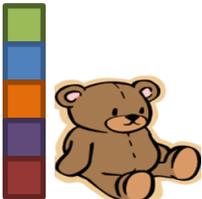
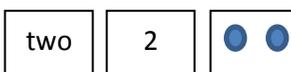
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction			Geometry: Shape	Number: Place Value		Number: Addition and Subtraction		
Spring	Time		Place Value		Number: Addition and Subtraction	Measures: Length and height	Number: Multiplication and Division		Number: Fractions			
Summer	Number: Place Value			Number: Four Operations			Measurement: Money	Measurement: Weight and Volume				

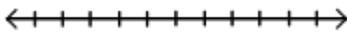
Term by Term Objectives

Year 1

Year Group		Y1				Term	Autumn						
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12		
<p><u>Number: Place Value</u> Count to ten, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>Count, read and write numbers to 10 in numerals and words.</p> <p>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.</p> <p>Given a number, identify one more or one less.</p> <p>Count in multiples of twos.</p>				<p><u>Number: Addition and Subtraction</u> Represent and use number bonds and related subtraction facts (within 10)</p> <p>Add and subtract one digit numbers (to 10), including zero.</p> <p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p> <p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.</p>				<p><u>Geometry: Shape</u> Recognise and name common 2D and 3D shapes, including rectangles, squares, circles and triangles, cuboids, pyramids and spheres.</p> <p>Describe position, direction and movement, including whole, half, quarter and three quarter turns</p>		<p><u>Number: Place Value</u> Count to twenty, forwards and backwards, beginning with 0 or 1, from any given number.</p> <p>Count, read and write numbers from 1 to 20 in numerals and words.</p> <p>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.</p> <p>Count in multiples of twos and fives</p>		<p><u>Number: Addition and Subtraction</u> Represent and use number bonds and related subtraction facts within 20.</p> <p>Add and subtract one digit and two digit numbers to 20, including zero.</p> <p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p> <p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$</p>	

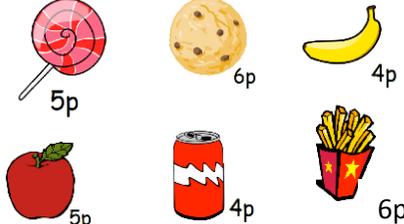
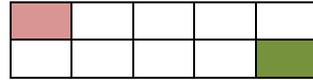
	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Place Value	Count to ten, forwards and backwards, beginning with 0 or 1, or from any given number.	<ul style="list-style-type: none"> Finish the sequence: 1, 2, 3, 4, __, __, __ 10, 9, 8, 7, __, __ Fill in the missing numbers: 0, 1, __, 3, 4, __, 6, 7, __, 9, __ Count forwards from 5. Count backwards from 9. 	<ul style="list-style-type: none"> I am going to count on from 8. Will I say the number 6? Explain your answer. Spot the mistake: What is wrong with this sequence of numbers? 4, 5, 7, 8, 9 I am going to count backwards from 10. How many steps will it take until I reach 4? 	<ul style="list-style-type: none"> What comes next in each set of dominoes?  Sing 1,2,3,4,5 once I caught a fish alive as a class. Can the children use their fingers to match the numbers they are singing?

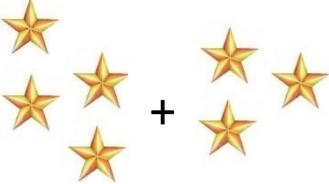
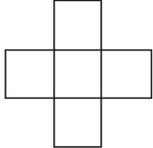
	National Curriculum Statement	All students																		
		Fluency	Reasoning	Problem Solving																
Place Value	Count, read and write numbers to 10 in numerals and words.	<ul style="list-style-type: none"> Using counters, show me: 10, 8, 7 Write the following numbers as numerals. Eight, six, seven. Write the numbers in words. 9, 1, 2 	<ul style="list-style-type: none"> True or False? The bear is four bricks high.  Sam says 'There are 9 stars.' Is he right?  Fill in the gaps. Can you draw a picture to prove your answer? I have ___ fingers. I have ___ nose. I have ___ eyes. 	<ul style="list-style-type: none"> Find a number to match the criteria. Use the number cards. A number bigger than 8 An odd number A number smaller than 6  Can you find the numbers in words in the wordsearch? 1, 4, 5, 9, 10 <table border="1" data-bbox="1691 766 2060 909"> <tr><td>f</td><td>n</td><td>r</td><td>t</td></tr> <tr><td>o</td><td>i</td><td>e</td><td>o</td></tr> <tr><td>u</td><td>n</td><td>v</td><td>n</td></tr> <tr><td>r</td><td>e</td><td>s</td><td>e</td></tr> </table> Play a game of snap- can the children match a number, to the number name, to a group of objects. Eg  	f	n	r	t	o	i	e	o	u	n	v	n	r	e	s	e
		f	n	r	t															
o	i	e	o																	
u	n	v	n																	
r	e	s	e																	

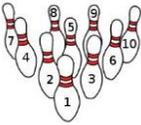
	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Place Value	<p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.</p>	<ul style="list-style-type: none"> Using Base 10, show me a number: <ol style="list-style-type: none"> More than 5 Less than 8 Equal to $3 + 1$ Using 10 counters, show me the most counters you can. Show me the least counters you can. Show me more than 7 counters. Point to the number 9 on the number line. Count on from 3 to 7; say each number as you count on. 	<ul style="list-style-type: none"> Using a set of objects, look at the set. Are there more of one type than another? How can we find out? Sam says '7 is less than 8 but is more than 5'. Is he right? Explain your answer. Put numbers up to 10 in the boxes to make the number sentences complete. <p> is more than 4 but less than .</p> <p>$7 + 1$ is equal to , more than , and less than .</p> 	<ul style="list-style-type: none"> There are 3 tubs, a red one, a green one and a blue one. They have 10 cubes between them. The blue tub has one more cube in it than the red tub. The red tub has three fewer cubes than the green tub. How many cubes are in each tub? Jan has put 3 number cards in a bag. She picks the number 8 and says 'this is the biggest'. Then she picks the number 4 and says 'This is the smallest'. What number could be on the 3rd card? Ted is guessing what numbers could be on a number line. He knows the first number is 0 and the last number is equal to or below 10. What could the other numbers be? 

	National Curriculum Statement	All students													
		Fluency	Reasoning	Problem Solving											
Place Value	<p>Given a number, identify one more or one less.</p>	<ul style="list-style-type: none"> Fill in the missing numbers. 9 $\xrightarrow{\quad}$ Is 1 less than 2 $\xrightarrow{\quad}$ Is 1 more than How many fingers if I put one down?  I roll the number that is one more. What number do I roll?  	<ul style="list-style-type: none"> What comes next? $6+1=7$ $7+1=8$ $8+1=9$ True or False? 1 more than 7 is the same as 1 less than 9. Convince me. Harry says '1 more is the same as adding 1 and 1 less is the same as taking away.' Is he right? Prove it. 	<ul style="list-style-type: none"> A number line has been cut up. Can you find the missing numbers? <table border="1" style="margin: 5px 0;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">5</td><td style="width: 20px; height: 20px;"></td></tr></table> <table border="1" style="margin: 5px 0;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">8</td></tr></table> <table border="1" style="margin: 5px 0;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">3</td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">5</td><td style="width: 20px; height: 20px;"></td></tr></table> Dan says 'I am one year older than my sister. My sister is one year older than my brother. My brother is 7. How old am I?' Roll a dice. If your number is even, write down the number one more than your number. If your number is odd, write down the number one less. How many numbers can you get? 		5				8		3		5	
	5														
		8													
	3		5												

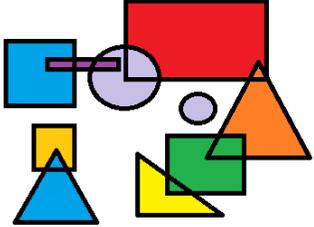
	National Curriculum Statement	All students								
		Fluency	Reasoning	Problem Solving						
Place Value	<p>Count in multiples of twos.</p>	<ul style="list-style-type: none"> Continue the pattern: 2, 4, 6, 8, __, __, __, __ Fill in the missing numbers. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; text-align: center;">6</td> <td style="width: 20px;"></td> <td style="width: 20px; text-align: center;">10</td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px; text-align: center;">16</td> </tr> </table> <ul style="list-style-type: none"> How many socks are there altogether? 	6		10			16	<ul style="list-style-type: none"> True or False? I start at 2 and count in twos. I will say the number 9. I am going to count on in twos from 3. Will I say an even number? Prove it. I am going to count back in twos from 20. How many steps will it take me to reach 0? Convince me. 	<ul style="list-style-type: none"> There are 2 flowers in each pot. How many flowers in 10 pots?  In the story Noah's Ark, the animals went in 2 by 2. If there were 2 of every animal below, how many animals were there altogether?  <ul style="list-style-type: none"> If there were 30 animals on the ark, how many pairs of animals were there?
6		10			16					

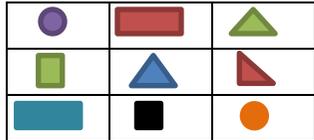
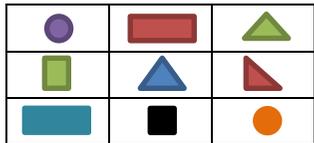
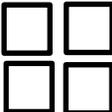
	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Addition and Subtraction	<p>Represent and use number bonds and related subtraction facts (within 10)</p>	<ul style="list-style-type: none"> Use the pattern to complete the number sentences. $10+0=$ $9+_=10$ Fill in the boxes: $2 + \square = 10$ $10 - \square = 3$ $5 + \square = 10$ $10 - \square = 9$ $\square + 4 = 10$ $10 - 0 = \square$ <p>Using the picture we can make 4 number sentences.</p> $3 + 2 = 5$ $5 - 2 = 3$ $2 + 3 = 5$ $5 - 3 = 2$ Can you write four number sentences using this picture?	<ul style="list-style-type: none"> Continue the pattern $0 + 8 = 8$ $1 + 7 = 8$ $_ + 6 = 8$ $3 + _ = _$ $_ + _ = _$ What number goes in the missing box? $9 + _ = 10$ $10 - _ = 9$ <p>Can you make a similar pattern for 10?</p> <p>Can you prove this using your fingers?</p> <ul style="list-style-type: none"> $7 + 3 = 3 + 7 = 10$ Do you agree? Use a ten frame to prove it. 	<ul style="list-style-type: none"> I have 10p to spend. Which two items could I buy? List of all the different items I could buy together.  All the dots have fallen off two toad stools. How many different ways can you put them back on?  Beth needs to colour in the boxes in two different colours. One box of each colour has been coloured. How many different ways can she colour the boxes. 

	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Addition and Subtraction	Add and subtract one digit numbers (to 10), including zero.	<ul style="list-style-type: none"> $5 + 3 = \square$ $8 - \square = 3$ Solve the addition:  $\square + \square = \square$ Solve the subtraction.  $9 - 5 =$ 	<ul style="list-style-type: none"> Write a pair of numbers that add together to make 8. How many pairs can you find? Are you sure there aren't any more? Maryam says 'If you add 0 to a number, the number stays the same.' Do you agree? Explain why. Harry says 'If you add together four 0's the answer is 4' Do you agree? Explain your answer. 	<ul style="list-style-type: none"> Write the numbers 1 to 5 in the squares so that each row and column add up to same number.   Pick a pair of numbers. Add them together. Write the numbers and the answer. How many different totals can you make? Choose a pair of numbers and take away one from the other. How many totals can you make now? <ul style="list-style-type: none"> Sid has two bean bags. He is throwing them into the buckets. More than one bean bag can go in each bucket. What is the highest/ lowest score? 

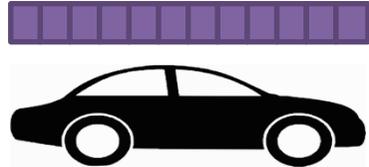
	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Addition and Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p>	<ul style="list-style-type: none"> There are 5 people upstairs on the bus, there are 4 people downstairs. How many altogether? Write a number sentence to show this.  Ben has 5 buns. He eats 2. How many are left? Write this in a number sentence.  Rob has 5 more cubes than Tom. Tom has 11 cubes. How many cubes does Rob have? Write a number sentence to show this. 	<ul style="list-style-type: none"> Write the missing symbols in these number sentences. +, - and = 7 <input type="checkbox"/> 2 <input type="checkbox"/> 9 8 <input type="checkbox"/> 4 <input type="checkbox"/> 4 If you know this, $6 + 3 = 9$. What other facts do you know? Which four number sentences link these 3 numbers? 3 4 7 	<ul style="list-style-type: none"> Tom is bowling, which pins must he knock down to score 7? How many ways can you do it?   Choose from these number cards to make the following numbers. 5, 6, 7, 8, 9, 10 You can use 2 or 3 number cards. Write your answers in full number sentences. Three birds each lay an odd number of eggs. They have 9 eggs altogether. Can you think of more than one way to do it? Use cubes to help you solve the problem. Write your answer in a number sentence.

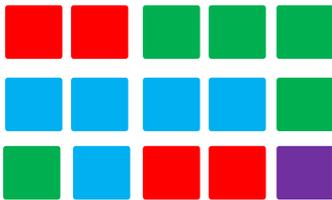
	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Addition and Subtraction	<p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.</p>	Covered above	Covered above	Covered above

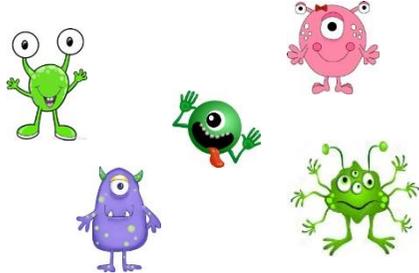
	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Geometry	Recognise and name common 2D and 3D shapes: rectangles, squares, circles, triangles, cuboids, pyramids and spheres.	<ul style="list-style-type: none"> Use a feely bag, put your hand in the bag, can you find the triangle? Can you feel the circle? Can you find the rectangle and the square? Sort a range of 3D objects (boxes, balls, cans) into groups. Use their shape names to describe the groups you have put them into. On a set of 3D shapes, can you see some 2D shapes? What are the shapes you can see called? 	<ul style="list-style-type: none"> What is the same about a square and rectangle? What is different? Triangle, Square, Circle- which is the odd one out? Explain your answer. Give children a variety of 3D shapes. Ask them 'what's the same and what's different about these shapes?' 	<ul style="list-style-type: none"> Can you name all the shapes you can see? How many of each shape are there? How are the shapes different, how are they the same? Children can make their own shape picture and describe them to others. 

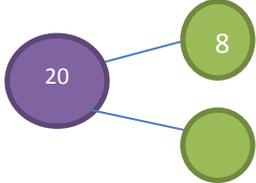
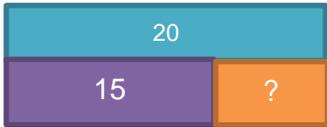
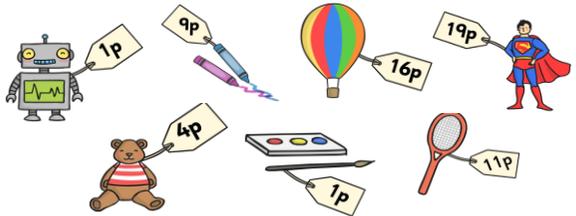
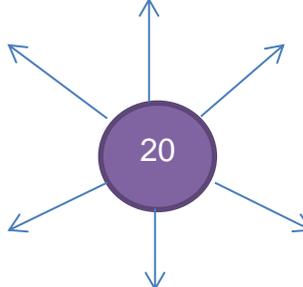
	National Curriculum Statement	All students																							
		Fluency	Reasoning	Problem Solving																					
Geometry	Describe position, direction and movement, including whole, half, quarter and three quarter turns.	 <p>Identify the position of each item. Top, Middle or Bottom? Above or Below? The blue square is in the ___ row. The purple circle is ___ the green square. The black square is in the ___ row ___ the blue triangle.</p>	 <p>Sarah chooses a shape from the grid. You can ask her 4 questions to work out which shape she is thinking of. She can only answer 'Yes' or 'No'. Which 4 questions would you ask? Can you explain why? Could you ask a different set of questions?</p> <ul style="list-style-type: none"> Decide whether the statements are true or false. Explain your answers. <table border="1" data-bbox="936 810 1303 1236"> <thead> <tr> <th>Picture</th> <th>Statement</th> <th>T or F?</th> </tr> </thead> <tbody> <tr> <td></td> <td>Quarter turn</td> <td></td> </tr> <tr> <td></td> <td>Half turn</td> <td></td> </tr> <tr> <td></td> <td>Three quarter turn</td> <td></td> </tr> <tr> <td></td> <td>Three quarter turn</td> <td></td> </tr> <tr> <td></td> <td>Quarter turn</td> <td></td> </tr> <tr> <td></td> <td>Half turn</td> <td></td> </tr> </tbody> </table>	Picture	Statement	T or F?		Quarter turn			Half turn			Three quarter turn			Three quarter turn			Quarter turn			Half turn		<ul style="list-style-type: none"> Use these clues to colour the four squares. Blue is above green. Red is below yellow. Yellow is to the left of blue.  <ul style="list-style-type: none"> Bill built a tower using four different coloured cubes. The red cube was below the green cube. The blue cube was above the yellow cube which was above the green cube. Which cube is on top? Five blocks have been labelled A, B, C, D and E. A is immediately to the right of B. C is to the right of D. B is in between E and D. E is immediately to the left of B. Where is D? 
		Picture	Statement	T or F?																					
	Quarter turn																								
	Half turn																								
	Three quarter turn																								
	Three quarter turn																								
	Quarter turn																								
	Half turn																								

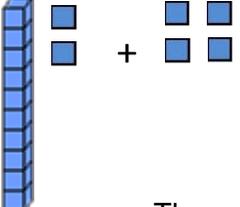
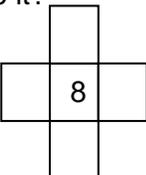
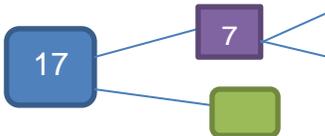
	National Curriculum Statement	All students														
		Fluency	Reasoning	Problem Solving												
Place Value	Count to twenty, forwards and backwards, beginning with 0 or 1, or from any given number.	<ul style="list-style-type: none"> Finish the sequence 8, 9, 10, 11, 12, <u> </u>, <u> </u>, <u> </u>, <u> </u> 20, 19, 18 <u> </u>, <u> </u>, <u> </u>, <u> </u> Fill in the missing numbers <table border="1" style="margin-left: 20px;"> <tr> <td>11</td><td> </td><td>13</td><td> </td><td> </td><td>16</td> </tr> </table> <table border="1" style="margin-left: 20px;"> <tr> <td>19</td><td> </td><td> </td><td>16</td><td> </td><td> </td> </tr> </table> Count to twenty starting at 1. Count to 20 starting at 7. 	11		13			16	19			16			<ul style="list-style-type: none"> I am going to count to 20. I start at 8. Will I say 11? Convince me. Spot the mistake: 19, 18, 16, 15, 14 What is wrong with this sequence of numbers? I count backwards from 20, how many steps does it take me to get to 7? 	<ul style="list-style-type: none"> Count to 20 one by one. You need to listen to each other and try not to say a number at the same time as somebody else. Every time only one person says a number you win a point. How many points can you win? Walk round the classroom, count your steps as you go. When you get to 20 count backwards. Did we all get the same number?
		11		13			16									
19			16													

	National Curriculum Statement	All students																																																														
		Fluency	Reasoning	Problem Solving																																																												
Place Value	Count, read and write numbers from 1 to 20 in numerals and words.	<ul style="list-style-type: none"> Match the numbers to the words. <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; background-color: #4a7ebb; color: white; border-radius: 10px;">seventeen</div> <div style="border: 1px solid black; padding: 5px; background-color: #c0392b; color: white; border-radius: 10px;">15</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; background-color: #6b347a; color: white; border-radius: 10px;">twenty</div> <div style="border: 1px solid black; padding: 5px; background-color: #009682; color: white; border-radius: 10px;">12</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; background-color: #f39c12; color: white; border-radius: 10px;">fifteen</div> <div style="border: 1px solid black; padding: 5px; background-color: #c0392b; color: white; border-radius: 10px;">17</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; background-color: #7ed321; color: white; border-radius: 10px;">twelve</div> <div style="border: 1px solid black; padding: 5px; background-color: #009682; color: white; border-radius: 10px;">20</div> </div>	<ul style="list-style-type: none"> True or False? The car is eleven cubes long. <div style="text-align: center;">  </div> <ul style="list-style-type: none"> Dan says 'I can make all the numbers from eleven to twenty using the numbers 1-9'. Do you agree? Explain your reasoning. Spot the mistake: Circle the odd one out and explain what has gone wrong 11, 12, 13, 14, 51, 16, 17 	<ul style="list-style-type: none"> Match each number to a sentence that describes it. <p>A number bigger than 10. An even number. A number smaller than 15.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; background-color: #4a7ebb; color: white; border-radius: 10px;">16</div> <div style="border: 1px solid black; padding: 5px; background-color: #6b347a; color: white; border-radius: 10px;">17</div> <div style="border: 1px solid black; padding: 5px; background-color: #f39c12; color: white; border-radius: 10px;">fourteen</div> </div> <ul style="list-style-type: none"> Can you find the numbers in the wordsearch? <table border="1" style="margin-left: auto; margin-right: auto; text-align: center;"> <tr><td>s</td><td>e</td><td>v</td><td>e</td><td>n</td><td>t</td><td>e</td><td>e</td><td>n</td></tr> <tr><td>t</td><td>h</td><td>r</td><td>e</td><td>e</td><td>w</td><td>l</td><td>e</td><td>i</td></tr> <tr><td>f</td><td>o</td><td>u</td><td>r</td><td>t</td><td>e</td><td>e</td><td>n</td><td>n</td></tr> <tr><td>e</td><td>i</td><td>g</td><td>h</td><td>t</td><td>n</td><td>v</td><td>o</td><td>e</td></tr> <tr><td>e</td><td>n</td><td>s</td><td>i</td><td>x</td><td>t</td><td>e</td><td>e</td><td>n</td></tr> <tr><td>t</td><td>h</td><td>i</td><td>r</td><td>t</td><td>y</td><td>n</td><td>t</td><td>o</td></tr> </table> <ul style="list-style-type: none"> Play a game of bingo. The bingo card has numbers from 1-20 in words. The teacher then shows a number in numerals and the children must find that number in words on their grid. <table border="1" style="margin-left: auto; margin-right: auto; text-align: center;"> <tr><td>thirteen</td><td>eight</td><td>eleven</td></tr> <tr><td>twenty</td><td>sixteen</td><td>twelve</td></tr> </table>	s	e	v	e	n	t	e	e	n	t	h	r	e	e	w	l	e	i	f	o	u	r	t	e	e	n	n	e	i	g	h	t	n	v	o	e	e	n	s	i	x	t	e	e	n	t	h	i	r	t	y	n	t	o	thirteen	eight	eleven	twenty	sixteen	twelve
		s	e	v	e	n	t	e	e	n																																																						
t	h	r	e	e	w	l	e	i																																																								
f	o	u	r	t	e	e	n	n																																																								
e	i	g	h	t	n	v	o	e																																																								
e	n	s	i	x	t	e	e	n																																																								
t	h	i	r	t	y	n	t	o																																																								
thirteen	eight	eleven																																																														
twenty	sixteen	twelve																																																														
	<ul style="list-style-type: none"> Count the stars and write the answer in numbers and words. <div style="text-align: center;">  </div> <p style="text-align: center;">There are _____ Stars.</p> <ul style="list-style-type: none"> Using counters or base 10, show me: 17, 15, 11, 20 																																																															

	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Place Value	<p>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.</p>	<ul style="list-style-type: none"> Using Base 10, show me a number: <ol style="list-style-type: none"> More than 12 Less than 20 Equal to $10 + 10$ Look at the baskets of apples. Which has the most? Which has the least?  <ul style="list-style-type: none"> Point to where 15 would be on the number track. Count from 11 to 18. Point to each number on the line as you count. 	<ul style="list-style-type: none"> Fill the gaps: <ul style="list-style-type: none"> <input type="checkbox"/> is more than 15 but less than 20. <input type="checkbox"/> is less than eighteen but more than twelve. What numbers could go in the boxes? Explain your answer. Look at the cubes, are there more of one colour than another? Which colour has the most? If I added two more red cubes which would have the most? Has it changed? Why?  <ul style="list-style-type: none"> Tim says '13 is more than twelve but less than eleven'. Is he correct? Prove it. 	<ul style="list-style-type: none"> Sarah has three bags of sweets. She says 'Bag A has the most sweets and Bag C has the least.' If Bag A has 12 and C has 17, how many might be in bag B? Put a number line from 1-20 on the IWB. One child chooses a number. Other children then have 5 guesses to work out what their number is by asking, Is it greater than... is it less than.... Is it more than...etc. There are three buckets, a red, blue and purple one. 20 balls are shared between the three buckets. There are 3 more balls in the red than the blue. There is one less in the purple than the red. All the buckets have more than 4 balls in them? How many balls are in each bucket? Use cubes to help you solve the problem.

	National Curriculum Statement	All students																				
		Fluency	Reasoning	Problem Solving																		
Place Value	Count in multiples of twos and fives.	<ul style="list-style-type: none"> Continue the pattern: 2, 4, 6, 8, __, __, __, __ 5, 10, 15, 20, __, __, __ Find the missing numbers: <table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <td>6</td> <td>8</td> <td></td> <td>12</td> <td></td> <td>16</td> </tr> </table> <table border="1" style="display: inline-table;"> <tr> <td>30</td> <td>25</td> <td></td> <td></td> <td>10</td> <td></td> </tr> </table> How many gloves are there? How many fingers are there? 	6	8		12		16	30	25			10		<ul style="list-style-type: none"> True or False? I count in fives from 10. I say the number 45. Explain your answer. Ben says 'If I count in 2's from 7 I will say the number 18.' Do you agree? Explain your answer. What is wrong with this sequence of numbers? <table border="1" style="display: inline-table;"> <tr> <td>20</td> <td>18</td> <td>16</td> <td>13</td> <td>12</td> <td>10</td> </tr> </table> Explain your answer. 	20	18	16	13	12	10	<ul style="list-style-type: none"> Jenny has made 2 biscuits. She has 20 jelly tots and 8 chocolate buttons to decorate them. She says 'I want to use jelly tots in multiples of 5 and chocolate buttons in multiples of 2.' How many ways could she decorate her biscuits? (They can be different) Zig and Zag are aliens. Zig eats multiples of 2. Zag eats multiples of 5. Which numbers would they eat? Are there any numbers they would both eat? 2, 5, 8, 10, 15, 20 Gringlygoos are monsters who have eyes that are multiples of 2 and fingers that are multiples of 5. Which monster below is a Gringlygoo?
		6	8		12		16															
30	25			10																		
20	18	16	13	12	10																	
																						

	National Curriculum Statement	All students																																																																		
		Fluency	Reasoning	Problem Solving																																																																
Addition and Subtraction	<p>Represent and use number bonds and related subtraction facts within 20.</p>	<ul style="list-style-type: none"> Fill in the missing numbers: $\square + 11 = 20$ $18 + \square = 20$ $20 - \square = 12$ Fill in the missing bonds:  Can you make a diagram linking 17 and 20? What would the missing bond be? Use the bar model to write 4 number sentences. 2 additions and 2 subtractions.  	<ul style="list-style-type: none"> Fill in the missing numbers. $11 + \square = 20$ $20 - \square = 11$ Can you make two more number sentences using the same three numbers? Continue the pattern $10 + 5 = 15$ $9 + 6 = 15$ Can you make a similar pattern for 20? Using the pattern above, could you make a pattern using subtractions? 	<ul style="list-style-type: none"> I have 20p to spend, choose 2 toys that you can buy for exactly 20p. How many pairs can you find?  Find the number bonds to 20 in the wordsearch. They must have a + sign in between the numbers. <table border="1" data-bbox="1881 742 2139 997"> <tbody> <tr><td>1</td><td>+</td><td>19</td><td>6</td><td>+</td><td>6</td><td>2</td><td>14</td></tr> <tr><td>2</td><td>16</td><td>+</td><td>4</td><td>0</td><td>5</td><td>+</td><td>1</td></tr> <tr><td>+</td><td>10</td><td>+</td><td>10</td><td>+</td><td>6</td><td>3</td><td>+</td></tr> <tr><td>3</td><td>13</td><td>+</td><td>7</td><td>20</td><td>2</td><td>+</td><td>18</td></tr> <tr><td>15</td><td>+</td><td>18</td><td>3</td><td>+</td><td>17</td><td>6</td><td>8</td></tr> <tr><td>+</td><td>5</td><td>+</td><td>3</td><td>2</td><td>+</td><td>20</td><td>12</td></tr> <tr><td>5</td><td>+</td><td>2</td><td>8</td><td>+</td><td>3</td><td>+</td><td>+</td></tr> <tr><td>5</td><td>+</td><td>19</td><td>+</td><td>1</td><td>4</td><td>0</td><td>8</td></tr> </tbody> </table> How many ways can you make 20?  	1	+	19	6	+	6	2	14	2	16	+	4	0	5	+	1	+	10	+	10	+	6	3	+	3	13	+	7	20	2	+	18	15	+	18	3	+	17	6	8	+	5	+	3	2	+	20	12	5	+	2	8	+	3	+	+	5	+	19	+	1	4	0	8
1	+	19	6	+	6	2	14																																																													
2	16	+	4	0	5	+	1																																																													
+	10	+	10	+	6	3	+																																																													
3	13	+	7	20	2	+	18																																																													
15	+	18	3	+	17	6	8																																																													
+	5	+	3	2	+	20	12																																																													
5	+	2	8	+	3	+	+																																																													
5	+	19	+	1	4	0	8																																																													

	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Addition and Subtraction	Add and subtract one digit and two digit numbers to 20, including zero.	<ul style="list-style-type: none"> Calculate: $12 + 5 =$ $18 - 6 =$ $13 - _ = 13$ $_ - 4 = 5$ Solve the addition:  <ul style="list-style-type: none"> There are 18 people on the bus, 7 get off at the bus stop. How many people are still on the bus?  	<ul style="list-style-type: none"> What do you notice? $20 - 12 = 8$ $20 - 8 = 12$ Can you make up some other number sentences like this using three numbers? I'm thinking of a number, I have subtracted 5 and the answer is 8. What number was I thinking of? Explain how you know. I'm thinking of a number. I have added 11 and the answer is 17. What was my number? Show me how you worked it out. 	<ul style="list-style-type: none"> Write a pair of numbers that add to 17. Can you find another pair? Find all pairs of numbers that add to 17. Prove that you have found them all. Fill in the blanks so each row and column adds up to 15. Can you use 4 different numbers? How many ways can you do it?  Complete the diagram. Can you extend it? 

	National Curriculum Statement	All students											
		Fluency	Reasoning	Problem Solving									
Addition and Subtraction	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.	<ul style="list-style-type: none"> If the ladybird lost 5 spots how many would it have left? Write a number sentence to show your working.  Tom has 10 stickers, he gets 7 more. Can you write a number sentence to show how many stickers Tom has altogether? Together, Sam and Matt have 15 sweets. Sam has 8 sweets. How many does Matt have? Write a number sentence to show your working. 	<ul style="list-style-type: none"> Can you make 4 number sentences using 14, 5 and 19? $13 + 5 = 18$ Can you make three other number sentences using the same three numbers? Write the missing symbols in the following number sentences. <table style="margin-left: 20px;"> <tr> <td>17</td> <td>3</td> <td>20</td> </tr> <tr> <td>20</td> <td>5</td> <td>15</td> </tr> <tr> <td>16</td> <td>20</td> <td>4</td> </tr> </table> 	17	3	20	20	5	15	16	20	4	<ul style="list-style-type: none"> Write a number sentence below that these objects could show:  Roll a 1-6 die twice. Add the two numbers together. Write down your number sentence. Roll the die again and take this number away from your answer. Can you write your subtraction in a number sentence? Using the numbers 1, 3 and 4, how many numbers up to 8 can you make? Write down your addition and subtraction sentences.
17	3	20											
20	5	15											
16	20	4											

	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Addition and Subtraction	<p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$</p>	Covered above	Covered above	Covered above