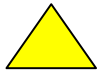
Numeracy Medium term planning with differentiation. Class 6 Year 1. Autumn Term 1 2016

Activities and groups adapted as necessary following ongoing formative assessments.

Week	Unit	Starters	Green Stars 	Yellow Triangles 	Blue Squares 	Red Circles 
1 1-2nd Sep	Number: Place Value	Count aloud in 1s, 2s, 5s and 10s, from 0 and from a given number. Count sounds (clicking/clapping) to 20/50/100. Match the number label to the amount of items (digits and words). Count forwards and backwards to 20/50/100 from 0 and from any given number. Reliably count up to 20/50/100 objects.	***Count read and write numbers to 20 in numerals and words.*** ***Fluency:*** *Use counters to show a given number e.g 30, 18, 7, 20* *Count across 20 to 50 and 50 to 100 forwards from 0.* *Write a given written number as numerals e.g eight, sixteen and seven,.* *Write the numbers in words e.g 15, 9, 1, 2.* Use the correct symbols and appropriate language, to count, read and write numerals up to 100. Identify and locate where numbers lie on a number line or 100-square. . ***Reasoning:*** Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally. **Problem solving:** Find the number to match a criteria using the given number cards.	***Count read and write numbers to 20 in numerals and words.*** ***Fluency:*** *Using counters to show a given number e.g 20 18, 7* *Count across 20 to 50 and 50 to 100 forwards from 0.* *Write a given written number as numerals e.g eight, sixteen and seven,.* *Write the numbers in words e.g 1 9, 1, 2.* Use the correct symbols and appropriate language, to count, read and write numerals up to 50. Identify and locate where numbers lie on a number line or 100-square. . ***Reasoning:*** Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally.	***Count read and write numbers to 20 in numerals and words.*** ***Fluency:*** *Using counters to show a given number e.g 10 8, 7* *Count across 20 to 50 and 50 to 100 forwards from 0.* *Write a given written number as numerals e.g eight, sixteen and seven,.* *Write the numbers in words e.g 9, 1, 2.* Use the correct symbols and appropriate language, to count, read and write numerals up to 50. Identify and locate where numbers lie on a number line or 100-square. . ***Reasoning:*** Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally.	***Count read and write numbers to 20 in numerals and words.*** ***Fluency:*** *Using counters to show a given number e.g 10 8, 7* *Count across 20 to 50 forwards from 0.* *Write a given written number as numerals e.g eight, six and seven,.* *Write the numbers in words e.g 9, 1, 2.* Use the correct symbols and appropriate language, to count, read and write numerals up to 50. Identify and locate where numbers lie on a number line or 100-square. . ***Reasoning:*** Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally.

2 5-9th Sep	Number: Place Value	Count, read and write numbers to 10 in numerals and words. Count in 2's, 5's and 10's. Count forwards and backwards to 20/50/100 from 0 and from any given number. what's missing in the sequence? Given a number, identify one more or one less. Give instructions to place a number on a number line or hundred square using mathematical language.	*Count to 20 forwards and backwards, beginning with 0, 1, or from any given number.* ***Fluency:*** Count to 100 forwards and backwards from 0 or 1. *Count on and back in steps of 2, 5 and 10 to 100. Finish the sequence 8, 9, 10, …. 50, 49, 48, 47 Fill in the missing gaps and discuss the patterns. Count forwards and backwards from a given number e.g 76. **Reasoning:** Discuss reasons for the following: I am going to count to 20. I start at 8. Will I say 11? What is wrong with the following sequence?: 39,28, 26, 25, 24. Create their own mistake in a sequence for their peers. Count back from 20. How many steps will it take to get to 7? What is the odd one out? 40, 71, 65? **Problem solving:** If I start at 5 and count in 5's will I sat the number 100? Problem solving scenarios in the classroom.	*Count to 20 forwards and backwards, beginning with 0, 1, or from any given number.* Count to 100 forwards and backwards from 0 or 1. *Count on and back in steps of 2, 5 and 10 to 50. Finish the sequence 8, 9, 10, …. 50, 49, 48, 47 Fill in the missing gaps and discuss the patterns. Count forwards and backwards from a given number e.g 36. **Reasoning:** Discuss reasons for the following: I am going to count to 20. I start at 8. Will I say 11? What is wrong with the following sequence?: 19,18, 16, 15, 14. Create their own mistake in a sequence for their peers. Count back from 20. How many steps will it take to get to 7? What is the odd one out? 40, 71, 65? **Problem solving:** If I start at 5 and count in 5's will I sat the number 100? Problem solving scenarios in the classroom.	*Count to 20 forwards and backwards, beginning with 0, 1, or from any given number.* . Count to 50 forwards and backwards from 0 or 1. *Count on and back in steps of 2, 5 and 10 to 50. Finish the sequence 8, 9, 10, …. 50, 49, 48, 47 Fill in the missing gaps and discuss the patterns. Count forwards and backwards from a given number e.g 36. **Reasoning:** Discuss reasons for the following: I am going to count to 20. I start at 8. Will I say 11? What is wrong with the following sequence?: 19,18, 16, 15, 14. Create their own mistake in a sequence for their peers. Count back from 20. How many steps will it take to get to 7? What is the odd one out? 40, 71, 65? **Problem solving:** If I start at 5 and count in 5's will I sat the number 100? Problem solving scenarios in the classroom.	*Count to 20 forwards and backwards, beginning with 0, 1, or from any given number.* Count to 50 forwards and backwards from 0 or 1. *Count on and back in steps of 2, 5 and 10 to 50. . Finish the sequence 8, 9, 10, …. 50, 49, 48, 47 Fill in the missing gaps and discuss the patterns. Count forwards and backwards from a given number e.g 36. **Reasoning:** Discuss reasons for the following: I am going to count to 20. I start at 8. Will I say 11? What is wrong with the following sequence?: 19,18, 16, 15, 14. Count back from 20. How many steps will it take to get to 7? **Problem solving:** If I start at 5 and count in 5's will I sat the number 100? Problem solving scenarios in the classroom.	

3 13th- 16thSep	Number: Place Value	What is the odd one out and why? 50, 61, 75 62, 63, 78 What is wrong with the following sequence? Count in 2's, 5's 10's Give instructions to place a number on a number line or hundred square using mathematical language. Understand ordinal numbers 1st, 2nd, 3rd first, second, third etc.).	Identify and represent numbers using objects and pictorial representations including the number line, and use of the language of: equal to, more than, less than, most, least. **Fluency** Work out a given number using a 3 step problem. E.g using base as 10, show a number that is: more than 12, less than 20 equal to 10 + 10. Use language ' most' and 'least' to compare groups of objects. Position numbers on a number track. Find 85 on the number line by counting from 81 to 88. **Reasoning:** Explain the possible numbers that link to a statement e.g ____ is more than 15 but less than 20. __is less than eighteen but more than 12. Compare colours on a cube. Use language 'more' less' and discuss the changes. Apply language of 'more' and 'less to compare age problems. **Problem solving:** Solve problems based on finding the quantity in groups. Extend language of 'greater than, less than etc by playing a game of 'guess my number in between 20-30.	Identify and represent numbers using objects and pictorial representations including the number line, and use of the language of: equal to, more than, less than, most, least. **Fluency** Work out a given number using a 3 step problem. E.g using base as 10, show a number that is: more than 12, less than 20 equal to 10 + 10. Use language ' most' and 'least' to compare groups of objects. Position numbers on a number track. Find 65 on the number line by counting from 61 to 68. **Reasoning:** Explain the possible numbers that link to a statement e.g ____ is more than 15 but less than 20. __is less than eighteen but more than 12. Compare colours on a cube. Use language 'more' less' and discuss the changes. Apply language of 'more' and 'less to compare age problems. **Problem solving:** Solve problems based on finding the quantity in groups. Extend language of 'greater than, less than etc by playing a game of 'guess my number in between 20-30.	Identify and represent numbers using objects and pictorial representations including the number line, and use of the language of: equal to, more than, less than, most, least. **Fluency** Work out a given number using a 3 step problem. E.g using base as 10, show a number that is: more than 12, less than 20 equal to 10 + 10. Use language ' most' and 'least' to compare groups of objects. Position numbers on a number track. Find 65 on the number line by counting from 61 to 68. **Reasoning:** Explain the possible numbers that link to a statement e.g ____ is more than 15 but less than 20. __is less than eighteen but more than 12. Compare colours on a cube. Use language 'more' less' and discuss the changes. Apply language of 'more' and 'less to compare age problems. **Problem solving:** Solve problems based on finding the quantity in groups. Extend language of 'greater than, less than etc by playing a game of 'guess my number in between 20-30.	Identify and represent numbers using objects and pictorial representations including the number line, and use of the language of: equal to, more than, less than, most, least. **Fluency** Work out a given number using a 3 step problem. E.g using base as 10, show a number that is: more than 12, less than 20 equal to 10 + 10. Use language ' most' and 'least' to compare groups of objects. Position numbers on a number track. Find 65 on the number line by counting from 61 to 68. **Reasoning:** Explain the possible numbers that link to a statement e.g ____ is more than 15 but less than 20. __is less than eighteen but more than 12. Compare colours on a cube. Use language 'more' less' and discuss the changes. Apply language of 'more' and 'less to compare age problems. **Problem solving:** Solve problems based on finding the quantity in groups. Extend language of 'greater than, less than etc by playing a game of 'guess my number in between 20-30.

4 **19th – 23rd Sep**	Number: Place Value	Count aloud in 1s, 2s, 5s and 10s, from 0 and from a given number. Count, read and write numbers to 10 in numerals and words. Count sounds (clicking/clapping) to 20/50/100. Problem solving questions Reliably count up in 2's and 5's across 20/50/100 Say the number one more or one less than any given number.	***Given a number, identify one more or one less to beyond 50.*** ***Fluency:*** Compare and order numbers up to 100, using the language bigger and smaller. Fill in the missing numbers up to 100. Identify a hidden number and explain the pattern that helped. Begin to understand place value in two-digit numbers by partitioning numbers above 10 to show the value of tens and units/ones. *Identify numbers one/ten more and one/ten less than a given number to 100. ***Reasoning:*** Discussing what comes next: 6+1= 7 7 +1 = 8 8 + 1 = 9 Explain why a problem is true or false. E.g 1 more than 7 is less than 9. Compare different amounts What's the same? What's different? Using language 'more than' 'less than' 'most' 'least' **Problem Solving:** Write the numbers in order of size. Put the number in the correct place on the number grid. Solve an age problem by using language of one more and one less.	***Given a number, identify one more or one less to beyond 20.*** ***Fluency:*** Compare and order numbers up to 50, using the language bigger and smaller Fill in the missing numbers up to 50. Identify a hidden number and explain the pattern that helped. Begin to understand place value in two-digit numbers by partitioning numbers above 10 to show the value of tens and units/ones. ***Reasoning:*** Discussing what comes next: 6+1= 7 7 +1 = 8 8 + 1 = 9 Explain why a problem is true or false. E.g 1 more than 7 is less than 9. Compare different amounts What's the same? What's different? Using language 'more than' 'less than'. **Problem Solving:** Work out the missing numbers in a number line. Solve an age problem by using language of one more and one less.	***Given a number, identify one more or one less to beyond 20.*** ***Fluency:*** Compare and order numbers up to 50, using the language bigger and smaller Fill in the missing numbers up to 50. Identify a hidden number and explain the pattern that helped. Begin to understand place value in two-digit numbers by partitioning numbers above 10 to show the value of tens and units/ones. ***Reasoning:*** Discussing what comes next: 6+1= 7 7 +1 = 8 8 + 1 = 9 Explain why a problem is true or false. E.g 1 more than 7 is less than 9. Compare different amounts What's the same? What's different? Using language 'more than' 'less than'. **Problem Solving:** Work out the missing numbers in a number line. Solve an age problem by using language of one more and one less.	***Given a number, identify one more or one less to beyond 10.*** . ***Fluency:*** Compare and order numbers, using the language bigger and smaller Fill in the missing numbers up to 20. Identify a hidden number and explain the pattern that helped. Begin to understand place value in two-digit numbers by partitioning numbers above 10 to show the value of tens and units/ones. ***Reasoning:*** Discussing what comes next: 6+1= 7 7 +1 = 8 8 + 1 = 9 Explain why a problem is true or false. E.g 1 more than 7 is less than 9. Compare different amounts What's the same? What's different? Using language 'more than' 'less than'. **Problem solving**: Work out the missing numbers in a number line. Solve an age problem by using language of one more and one less

5 26th-30th Sep	Number: Addition and Subtraction	Position numbers on a number line. Compare groups- using more and less language. Quick recall of number bonds to 10 and then 20. Quick recall of commutative law for addition. Solve missing number problems. How many items can you get for 20p	Represent and use number bonds and related subtraction facts. **Fluency:** Explore a wide range of methods e.g missing boxes, fingers, counters, numericons etc. to explain bonds to 10 and 20. Use bonds to 20 patterns to complete number sentences. Understand the commutative law for addition (that it can be done in any order e.g. 4 + 6 or 6 + 4). Use boxes and bar models to create inverse number sentences for number bonds to 10 and 20. **Reasoning:** Recognise and continue patterns in number sentences. Focus on making patterns for the number 10. Apply rules for number bonds to 10 when using larger numbers e.g 20. Solve missing number questions. Problem solving: Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally. Problems to include recording how many items you can buy with 20p, placing 10 dots on two toads stools in different ways and discovering a wide range of colour patterns in boxes to represent bonds to 10.	Represent and use number bonds and related subtraction facts. **Fluency:** Explore a wide range of methods e.g missing boxes, fingers, counters, numericons etc. to explain bonds to 10 and 20. Use bonds to 10 patterns to complete number sentences. Understand the commutative law for addition (that it can be done in any order e.g. 4 + 6 or 6 + 4). Use boxes to create inverse number sentences. **Reasoning:** Recognise and continue patterns in number sentences. Focus on making patterns for the number 10. Apply rules for number bonds to 10 when using larger numbers e.g 20, 50, 100. Solve missing number questions. Problem solving: Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally. Problems to include recording how many items you can buy with 10p, placing 10 dots on two toads stools in different ways and discovering a wide range of colour patterns in boxes to represent bonds to 10. Record the problem and answer using the + and = symbols.	Represent and use number bonds and related subtraction facts. **Fluency:** Explore a wide range of methods e.g missing boxes, fingers, counters, numericons etc. to explain bonds to 10 and 20. Use bonds to 10 patterns to complete number sentences. Understand the commutative law for addition (that it can be done in any order e.g. 4 + 6 or 6 + 4). Use boxes to create inverse number sentences. **Reasoning:** Recognise and continue patterns in number sentences. Focus on making patterns for the number 10. Apply rules for number bonds to 10 when using larger numbers e.g 20, 50, 100. Solve missing number questions. Problem solving: Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally. Problems to include recording how many items you can buy with 10p, placing 10 dots on two toads stools in different ways and discovering a wide range of colour patterns in boxes to represent bonds to 10.	Represent and use number bonds and related subtraction facts. **Fluency:** Explore a wide range of methods e.g missing boxes, fingers, counters, numericons etc. to explain bonds to 10. Use bonds to 10 patterns to complete number sentences. Understand the commutative law for addition (that it can be done in any order e.g. 4 + 6 or 6 + 4). Use boxes to create inverse number sentences. **Reasoning:** Recognise and continue patterns in number sentences. Focus on making patterns for the number 10. Apply rules for number bonds to 10 when using larger numbers e.g 20, 50, 100. Solve missing number questions. Problem solving: Use practical apparatus or drawings to model word problems. Describe how the problem was solved and explain reasoning orally. Problems to include recording how many items you can buy with 10p, placing 10 dots on two toads stools in different ways and discovering a wide range of colour patterns in boxes to represent bonds to 10.	

			Record the problem and answer using the + and = symbols. Number bonds to 20 wordsearch.		Record the problem and answer using the + and = symbols.	Record the problem and answer using the + and = symbols.	
6 3rd-7th Oct	Number: Addition and Subtraction	Count forwards and backwards to 20/50/100 from 0 and from any given number. Repeat counting in 2s, 5s and 10s. Say the number one more or one less than any given number to 50/100. Develop quick recall of addition subtraction facts and use - and = symbols to record. Solve problems involving addition.	Read, write and interpret mathematical statements involving addition, subtraction and equals signs. **Fluency:** Read and solve problem, which involve adding and subtracting using 2 single digit numbers together. Use pictorial representations and a number sentence to show workings. **Reasoning:** Add missing symbols + - and = to given number sentences. Use the commutative rule to show the associated facts to a given number sentence. E.g 16 + 3 = 20 Show a link between 3 numbers (17, 13, 14) using number sentences. **Problem solving:** Show the different ways someone can score 7 in a bowling game. Use 2 or 3 numbers from 4 cards to make a total. Solve an 'egg' problem using cubes.	Read, write and interpret mathematical statements involving addition, subtraction and equals signs. **Fluency:** Read and solve problem, which involve adding and subtracting using 2 single digit numbers together. Use pictorial representations and a number sentence to show workings. **Reasoning:** Add missing symbols + - and = to given number sentences. Use the commutative rule to show the associated facts to a given number sentence. E.g 16 + 3 = 20 Show a link between 3 numbers (17, 13, 14) using number sentences. **Problem solving:** Show the different ways someone can score 7 in a bowling game. Use 2 or 3 numbers from 4 cards to make a total. Solve an 'egg' problem using cubes.	Read, write and interpret mathematical statements involving addition, subtraction and equals signs. **Fluency:** Read and solve problem, which involve adding and subtracting using 2 single digit numbers together. Use pictorial representations and a number sentence to show workings. **Reasoning:** Add missing symbols + - and = to given number sentences. Use the commutative rule to show the associated facts to a given number sentence. E.g 16 + 3 = 20 Show a link between 3 numbers (17, 13, 14) using number sentences. **Problem solving:** Show the different ways someone can score 7 in a bowling game. Use 2 or 3 numbers from 4 cards to make a total. Solve an 'egg' problem using cubes.	Read, write and interpret mathematical statements involving addition, subtraction and equals signs. **Fluency:** Read and solve problem, which involve adding and subtracting using 2 single digit numbers together. Use pictorial representations and a number sentence to show workings. **Reasoning:** Add missing symbols + - and = to given number sentences. Use the commutative rule to show the associated facts to a given number sentence. E.g 16 + 3 = 20 Show a link between 3 numbers (17, 13, 14) using number sentences. **Problem solving:** Show the different ways someone can score 7 in a bowling game. Use 2 or 3 numbers from 4 cards to make a total. Solve an 'egg' problem using cubes.	
7 10th – 14th Oct	Number: Addition and Subtraction	Creating number sentences using the correct symbols. Give instructions	Read, write and interpret mathematical statements involving addition, subtraction and equal signs. **Fluency:** Read addition and subtraction problems and show	Read, write and interpret mathematical statements involving addition, subtraction and equal signs. **Fluency:** Read addition and subtraction problems and show	Read, write and interpret mathematical statements involving addition, subtraction and equal signs. **Fluency:** Read addition and subtraction problems and show	Read, write and interpret mathematical statements involving addition, subtraction and equal signs. **Fluency:** Read addition and subtraction problems and show	

		(without looking) to enable a partner to reproduce their pattern. Write sentences using a given picture. Quick recall of number bonds to 10 and 20.	workings through pictorial representations and number sentences independently. **Reasoning:** Use 3 numbers e.g 14, 5 and 19 to create number sentences. Fill in the missing symbols in the selected number sentences e.g 17, 3, 20 20, 5, 15. **Problem solving:** Write number sentences using a given picture. Explore problem solving skills using a dice. Roll a 1-6 dice twice and add the numbers together. Roll again and take this number away. Write the subtraction in a number sentence.	workings through pictorial representations and number sentences independently. **Reasoning:** Use 3 numbers e.g 14, 5 and 19 to create number sentences. Fill in the missing symbols in the selected number sentences e.g 17, 3, 20 20, 5, 15. **Problem solving:** Write number sentences using a given picture. Explore problem solving skills using a dice. Roll a 1-6 dice twice and add the numbers together. Roll again and take this number away. Write the subtraction in a number sentence.	workings through pictorial representations and number sentences independently. **Reasoning:** Use 3 numbers e.g 14, 5 and 19 to create number sentences. Fill in the missing symbols in the selected number sentences e.g 17, 3, 20 20, 5, 15. **Problem solving:** Write number sentences using a given picture. Explore problem solving skills using a dice. Roll a 1-6 dice twice and add the numbers together. Roll again and take this number away. Write the subtraction in a number sentence.	workings through pictorial representations and number sentences independently. **Reasoning:** Use 3 numbers e.g 14, 5 and 19 to create number sentences. Fill in the missing symbols in the selected number sentences e.g 17, 3, 20 20, 5, 15. **Problem solving:** Write number sentences using a given picture. Explore problem solving skills using a dice. Roll a 1-6 dice twice and add the numbers together. Roll again and take this number away. Write the subtraction in a number sentence.	
8 17th-21st Oct	Assessment Week						