Term by Term Objectives

Year 3

National Curriculum Statement	All students		
	Fluency	**Reasoning**	**Problem Solving**

Addition and Subtraction
 	
Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three digit number and hundreds.
	• **Calculate:**
	153 + 6
	153 + 60
	153 + 600
	
	• **Calculate:**
	356 – 9
	356 – 90
	356 – 200
	
	• **Fill in the missing numbers**
		• **Are these number sentences true or false?**
		396 + 6 = 412
		504 – 70 = 444
		556 + 150 = 706
		Justify your answers.
		
		• **Always, Sometimes, Never**
		When you add 7 to a number ending in 8 your answer ends with 5. Explain your answer.
		
		• **Which questions are easy, which are hard?**
		
		453 + 10 = 930 – 100 =
		493 + 10 = 910 – 120 =
		
		Why are some easy and some hard? Explain your reasons.
			• **Always, Sometimes, Never**
			  - 2 odd numbers add up to make an even number.
			  - 3 odd numbers add up to make an even number.
			  - Adding 8 to a number ending in 2 makes a multiple of 10.
			
			• Three pandas ate 25 bamboo sticks. Each of them ate a different odd number of bamboo sticks. How many bamboo sticks did they each eat? Find as many ways as you can to do it.
			
			• A magician is performing a card trick. He has eight cards with the digits 1-8 on them. He chooses four cards and the numbers on them add up to 20. How many different combinations could he have chosen?

Start	Add 5	Add 50	Add 500
342			
	322		
		246	

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National Curriculum Statement	All students		
	Fluency	**Reasoning**	**Problem Solving**
Addition and Subtraction Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.	• Use the grid to solve the calculation below. 355 +426 • Write down three numbers that add up to make 247. __+__+__ = 247 Write down a different set of numbers that add up to 247. • Harry has 357 stickers, John has 263. How many do they have altogether? If Harry gives John 83 stickers, how many do they have each now?	• Find the missing numbers in the addition. • Dan saved £342 in his bank account. He spent £282. Does the subtraction below show how much he has left? Explain your answer. 282 -342 140 • Find the errors in the calculations and correct them to find the right answer. | Calculation	Error	Correct solution
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256 + 347 2907		
63 - 38 35				• The answer to the addition is 201. All the digits used are either 1 or 9. Fill in the boxes. 201 = ☐☐ + ☐☐ + ☐☐ Can this be done more than one way? Convince me. • Roll a 1-6 die, fill in each of the boxes and try to make the smallest total possible. Repeat and try to find different answers. Could you have placed the digits in a different place to make a lower total? ☐☐☐ + ☐☐☐ • Molly went swimming every day for 5 days. She swam 80 lengths during the 5 days. Each day she swam 4 less lengths than the day before, how many lengths did she swim each day?

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	Fluency	**Reasoning**	**Problem Solving**
Addition and Subtraction Estimate the answer to a calculation and use inverse operations to check answers.	• **Make an estimate:** Which of the following number sentences have an answer between 50 and 60? 274 - 219 533 – 476 132 - 71 • 34 + 45 = 79 Use a subtraction to check the answer to the addition. • Hannah has baked 45 cakes for a bun sale. She sells 18 cakes. How many does she have left? Double check your answer by using an addition.	• Niamh estimates the answer to 489 + 109 as shown: 489 + 109 ≈ 500 Do you agree with Niamh? Explain your answer. • Leonie says ' 353- 26 = 333 because 300 – 0 = 300, 50 – 20= 30, 6 – 3= 3 so 353-26 = 333' Do you agree with her answer? Prove your answer by using an addition calculation. • Colin says 'If I add two numbers together I can check my answer by taking them away afterwards. So to check 3 + 4, I can do 4 -3. 'Is he right? Explain Colin's thinking.	• **Is it magic?** Think of a number. Multiply it by 5. Double it. Add 2. Subtract 2. Halve it. Divide it by 5. Have you got back to your original number? Is this magic? Can you work out what has happened? • Using the idea above (Is it magic?). Create your own set of instructions where you think of a number and end up back at the original number. • I think of a number. I divide by 2 and add 98. My answer is 100. What was my number?

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Measurement

Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

- Fill in the missing boxes

  0.5l + 250ml = 1500ml – ☐

  0.25l × ☐ = 2l + 500ml

- 3m – ☐ + 750cm = 2m

  3.5kg + ☐ - 1.5kg = 3.5kg

  0.2l + 0.8l - ☐ = 0.9l

- Adam, Danny and JoJo have 7kg worth of marbles to share. Adam receives double the amount Danny receives. Danny receives double the amount JoJo receives.
  How many kg of marbles do they each receive?

- **What's the pattern?**
- 2kg – ☐ + 250g = 1kg

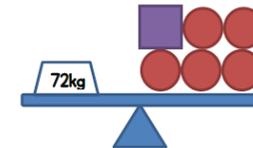 3kg – ☐ + 1.25kg = 1kg

  4kg – ☐ + 2.25kg = 1kg

- **What's the rule?**
  There is 480ml in a container.
  How much needs to be added to make 1l?
  How much needs to be added to make 2l?
  How much needs to be added to make 10l?

- Here is a balance.

  18kg

  Here is another balance.

  72kg

  Work out the value of

- Simon runs 4 times further than Emma.
  Kelly runs 3.6m further than Simon. Kelly ran 48.6m.
  How far did Emma run?

- Here are three blocks.

  Each red block is 8cm long.

  A green block is 6cm long.

  How long is a blue block?

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Measurement

Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

- Complete the missing boxes.

  90mm – ☐ = 6cm

  7m + ☐ = 810cm

- Complete the missing boxes.

  70cm + 9mm = 1m – ☐

  45mm + ☐ = 10cm – 4cm

- Terry and Anne had 40cm of string between them. He cut 15 off and took the remaining half. Anne had the rest. How much string did Anne get?

- **Odd one out.**

  200mm

  5cm

  7.5cm

  8cm

  Explain your reasons.

- Here is a red strip of paper.

  Here is a green strip of paper that is four times longer.

  Both of the strips of paper are put together.

  Together they equal 20cm.

  How long is the red strip? Give your answer in mm.

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