

Unit 3 Addition and subtraction

Five daily lessons

Primary
National Strategy

Year 2
Autumn term

Unit Objectives

Year 2

- Extend understanding of the operations addition and subtraction. Use and begin to read the related vocabulary. Use the +, – and = signs to record mental additions and subtractions in a number sentence, and recognise the use of a symbol such as □ or Δ to stand for an unknown number. Recognise that addition can be done in any order but not subtraction: for example, $3 + 21 = 21 + 3$, but $21 - 3 \neq 3 - 21$.
- **Use knowledge that addition can be done in any order to do mental calculations more efficiently.** For example: put the larger number first and count on in tens or ones.
- Add/subtract 9 or 11: add/subtract 10 and adjust by 1.
- **Explain how a problem was solved orally** and, where appropriate in writing.

Pages 25, 29

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This Unit Plan is designed to guide your teaching.

You will need to adapt it to meet the needs of your class.

Resources needed to teach this unit:

- Activity sheet 3.1
- Activity sheet 3.2
- Bead string (or OHT 3.1)
- Interactive teaching program 'Number facts' (or OHP and counters)
- Number line to 20
- Class hundred square
- Whiteboards
- Coat hanger with 14 pegs
- Tin
- 10p and 1p coins
- Two-digit numbers on cards
- Coloured pencils

Also see Models and Images Charts:

- Understanding addition and subtraction;
- Counting on and back in ones and tens;
- Addition and subtraction facts to 20.

Year 1

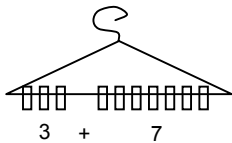
Link Objectives

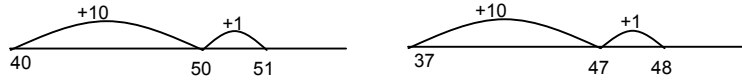
Year 3

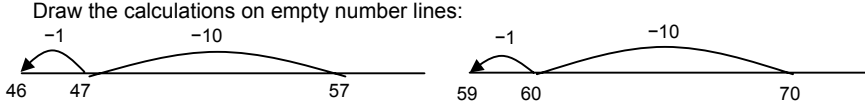
- **Understand the operation of addition, and of subtraction (as 'take away', 'difference', and 'how many more to make'), and use the related vocabulary.** Begin to recognise that addition can be done in any order. Begin to use the +, – and = signs to record mental additions and subtraction in a number sentence, and recognise the use of a symbol such as □ or Δ to stand for an unknown number.
- Add 9 to single-digit numbers by adding 10 then subtracting 1.
- Use knowledge that addition can be done in any order to do mental calculations more efficiently.
- Explain methods and reasoning orally.

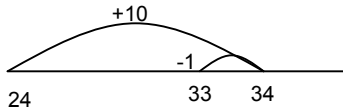
- Extend understanding of the operations of addition and subtraction, read and begin to write the related vocabulary, and continue to recognise that addition can be done in any order. Use the +, – and = signs.
- **Add and subtract mentally a 'near multiple of 10' to or from a two-digit number...** by adding or subtracting 10, 20, 30... and adjusting.
- Use knowledge that addition can be done in any order to do mental calculations more efficiently.
- **Explain methods and reasoning orally** and, where appropriate, in writing.



(Key objectives in bold)

Planning sheet	Day One	Unit 3 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
<p>Know by heart all addition facts for each number to at least 10.</p> <p>VOCABULARY add plus total altogether</p> <p>RESOURCES Coat hanger and 10 pegs</p>	<ul style="list-style-type: none"> Show the children 5 fingers. Ask the children to show how many fingers they would need to make 10. Repeat with different numbers. Ask children to say their answers in a number sentence e.g. 5 add 5 equals 10. Record the children's statements on the board e.g. $5 + 5 = 10$. Demonstrate using a coat hanger that addition can be done in any order. Place 10 pegs on coat hanger, 3 at one side and 7 at the other.  <p>Write the calculation on the board; $3 + 7 = 10$.</p> <p>Turn the coat hanger round so that the 3 pegs are now on the right.</p> <p>Q What calculation does the coat hanger show now? Is the answer the same? If you didn't know the answer would it matter whether you started with 7 and counted on 3 or started with 3 and counted on 7? Which would be easier?</p> <ul style="list-style-type: none"> Hang 2 pegs at one end and 6 at the other. Ask children to show you how many pegs there are altogether by holding up the right number of fingers. Turn the coat hanger round and repeat. Practise with other pairs with totals less than 10. 	<p>Recognise that addition can be done in any order but not subtraction.</p> <p>Use +, – and = signs to record mental calculations in a number sentence.</p> <p>VOCABULARY add addition take away subtract subtraction equals altogether count on count back</p> <p>RESOURCES Coat hanger with 14 pegs Number line to 20</p>	<ul style="list-style-type: none"> Hang 2 pegs on one end of the coat hanger and 12 on the other. <p>Q How many pegs are there altogether? How did you work it out?</p> <p>Turn the coat hanger round.</p> <p>Q Does this help? Why?</p> <p>Reinforce that the answer to $2 + 12$ and $12 + 2$ is 14, whether you start at 2 and count on 12, or start at 12 and count on 2, but counting on a smaller number is quicker.</p> <ul style="list-style-type: none"> Write the following calculations on the board: $5 + 22$ $34 + 3$ $29 + 2$ $5 + 49$ <p>Q How would you work these out? What would you do if they were pegs on a coat hanger?</p> <ul style="list-style-type: none"> Write the following calculations on the board: $12 - 3$; $3 - 12$ <p>Q Do you think the answers to these will be the same?</p> <p>Hang 12 pegs on the coat hanger and point to $12 - 3$.</p> <p>Q What shall I do next? How many are left?</p> <p>Now hang 3 pegs on the coat hanger and point to $3 - 12$.</p> <p>Q What shall I do now? What will happen? How many pegs can I take off?</p> <p>Draw out that the biggest number of pegs you can take off is 3. Write $3 - 3$ on the board and ask a child to complete the number sentence to confirm the answer to a take away question can be zero.</p> <p>Q Does $12 - 3$ give the same answer as $3 - 12$? Does $12 + 3$ give the same answer as $3 + 12$?</p> <p>Establish the principle that addition can be done in any order but not subtraction.</p> <ul style="list-style-type: none"> Write calculations such as the following on the board, ask the children to write them the way round they would prefer to work them out and then to choose at least five to complete. $15 + 3$ $19 + 3$ $2 + 14$ $4 + 18$ $3 + 23$ $19 - 4$ $23 - 2$ $3 + 28$ 	<p>Q Which calculations did you write in a different order? Why?</p> <ul style="list-style-type: none"> Write the following number sentences on the board and discuss what the missing numbers might be. <p style="text-align: right;"> $11 + \square = 13$ $15 + \square = 18$ $14 - \square = 12$ $19 - \square = 16$ $\square + 1 = 15$ $\square + 2 = 19$ $\square - 2 = 13$ $\square - 3 = 15$ </p> <p>Q How can we work out what has been added to 11 to get 13? If we start with a mystery number, add 1 and the answer's 15, what must the mystery number be?</p> <p>Help children to find the missing numbers by counting on/back on a number line.</p> <p>Q What two important facts have we learned today about addition and subtraction?</p> <ul style="list-style-type: none"> Ensure children recognise that addition can be done in any order but subtraction can not. <p>By the end of the lesson, children should be able to:</p> <ul style="list-style-type: none"> recognise addition can be done in any order but that subtraction cannot, for example $4 - 2$ is different from $2 - 4$. <p>(Refer to supplement of examples, section 5, pages 25 and 29.).</p>

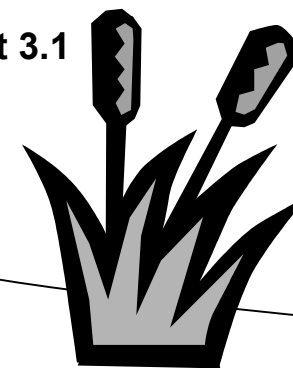
Planning sheet	Day Two (page 1 of 2)	Unit 3 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
<p>Know by heart all addition and subtraction facts for each number to at least 10.</p> <p>Use + and – and = signs to record mental calculations in a number sentence.</p> <p>VOCABULARY add addition subtract subtraction take away</p> <p>RESOURCES ITP 'Number facts' (or 10 counters on an OHP or whiteboard) Whiteboards</p>	<ul style="list-style-type: none"> Use the ITP 'Number facts' to practise addition and subtraction facts for each number from 5 to 10. (Alternatively use counters on the OHP or whiteboard.) <p>Start with 10 counters on the screen. Highlight the first 2 and ask children to write a number sentence on their boards, i.e. $2 + 8 = 10$. When they have done so, click on the number sentence icon to display the correct number sentence.</p> <p>Q What would the number sentence be if I'd changed the colour of the last two counters instead of the first two?</p> <ul style="list-style-type: none"> Deselect the number sentence option select the subtraction option and drag the last two counters into the bin on the screen. Ask the children to write a number sentence on their boards, and then select the number sentence option for them to check if they were right, i.e. $10 - 2 = 8$ <p>Q What number sentence would you have written if I had put the red counters in the bin instead of the yellow counters?</p> <ul style="list-style-type: none"> Write $8 + 2 = 10$, $2 + 8 = 10$, $10 - 2 = 8$ and $10 - 8 = 2$ on the board and say that these number sentences are all about the eight red counters, the two yellow counters and the number altogether. 	<p>Add/subtract 11 by adding 10 and adjusting by 1.</p> <p>Use + and – and = signs to record mental calculations in a number sentence.</p> <p>VOCABULARY add addition subtract subtraction take away count on count back two-digit number</p> <p>RESOURCES Tin 10p and 1p coins Class hundred square</p>	<ul style="list-style-type: none"> Drop 10p coins one by one into a tin, asking the children periodically how much money is in the tin. Empty the tin. Put 5p in the tin, and then add 10p coins one at time, periodically asking how much is in the tin. Empty the tin and put 40p in the tin. Then add a 10p coin and a 1p coin. <p>Q How much have I added? How much is in the tin now? How did you work it out?</p> <p>Empty the tin and put 70p in. Again add a 10p coin and 1p coin asking children how much has been added and what the new total is.</p> <ul style="list-style-type: none"> Empty the tin and put 45p in it. Add a 10p coin and then a 1p coin. <p>Q How much have I added? How much is in the tin now? How did you work it out?</p> <p>Start with 56p in the tin, add 10p and 1p, again asking the children how much has been added and what the new total is. Repeat starting with other two-digit amounts until the children are secure.</p> <ul style="list-style-type: none"> Write $40 + 10$ and $40 + 11$ on the board. <p>Q How could you add the 11 on? What would be an easy way? Does knowing $40 + 10$ help?</p> <p>Write $37 + 11$ on the board.</p> <p>Q How could you work this out? How could you add the 11 on? What would be an easy way? What is an easy way to add 11 to a two-digit number?</p> <p>Establish that out that one way to add 11 is to add 10 first, and then to add 1. Write $37 + 10 + 1 = 48$</p> <p>Draw the calculations on empty number lines:</p>  <p>Say that you could add the 1 first and then the 10 and that the total would be the same as when you added 10 then 1. Show this on a number line and write $37 + 1 + 10 = 48$</p>	<ul style="list-style-type: none"> Show the children the hundred square and ask a child to find 37. <p>Q What number would you land on if you added 10 to 37? Where is it on the hundred square? If we added another 1 on, where would you land? How much have we added on to 37 altogether? What number sentence could we write?</p> <ul style="list-style-type: none"> Ask a child to find one of the two-digit numbers they chose in the main part of the lesson. <p>Q Where would you land if you added 10 onto this number? And then another 1? How much have we added on altogether? What number sentence could we write?</p> <p>Q How do we move when we add 11 onto these numbers on the hundred square?</p> <ul style="list-style-type: none"> Establish that adding 11 onto these numbers produces an 'L' shape. Show that if you add 1 and then 10 you land on the same number.

Planning sheet	Day Two (page 2 of 2)	Unit 3 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
	<ul style="list-style-type: none"> This time put 6 counters on the screen and change the first 2 to yellow, leaving the last 4 red. Ask the children to write two number sentences on their whiteboards using the = sign. Now put the 2 yellow counters into the bin and ask them to write a subtraction number sentence before displaying it on the screen. Put the 2 yellow counters back and put the red counters in the bin, asking them to write a different subtraction number sentence before displaying it on the screen. Write this family of facts on the board explaining that are all about the 4 red counters, the 2 yellow counters and the total number of counters. Display 7 counters, 4 red and 3 yellow and ask the children to write as many number sentences as they can about them. 		<ul style="list-style-type: none"> Ask the children to work in pairs to choose five two-digit numbers greater than 20 and add 11 to them. They can draw number lines if they find it helpful. They should record the complete number sentences (and number lines if they use them) in their books. Collect children's responses and discuss their number sentences. Write $57 - 11$ and $70 - 11$ on the board. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Q How could you work this out? How would you subtract the 11? What would be an easy way? What is an easy way to subtract 11 from a two-digit number?</p> </div> <p>Draw the calculations on empty number lines:</p>  <p>Say that you could subtract the 1 first and then the 10 and that the answer would be the same as when you subtract 10 then 1. Show this on a number line.</p> <ul style="list-style-type: none"> Ask the children to work in pairs to subtract 11 from each of the five two-digit numbers they chose before. Again they should record the complete number sentences in their books, together with number lines if they find them helpful. 	<ul style="list-style-type: none"> Repeat the above for subtracting 11 to show the reversed 'L' shape. <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>By the end of the lesson, children should be able to:</p> <ul style="list-style-type: none"> mentally add/subtract 11 to/from any two-digit number; use + and – and = signs to record mental calculation in a number sentence. <p>(Refer to supplement of examples, section 5, pages 25 and 35.)</p> </div>

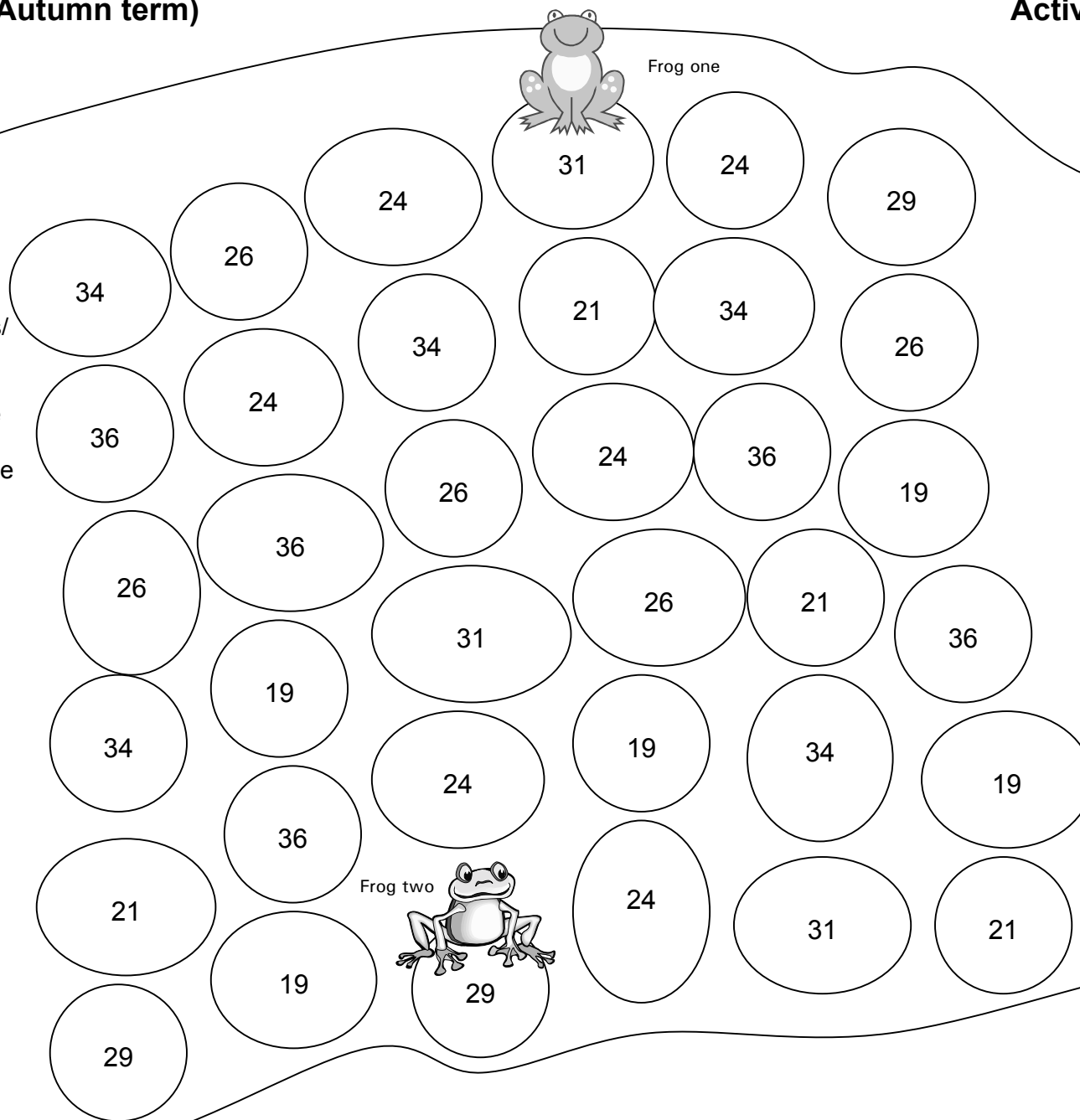
Planning sheet	Day Three	Unit 3 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
<p>Say the number that is 1 or 10 more or less than any given two-digit number.</p> <p>Partition two-digit numbers into a multiple of 10 and 1.</p> <p>VOCABULARY added on subtracted taken away tens ones</p> <p>RESOURCES Bead string</p>	<ul style="list-style-type: none"> Use the bead string to practise counting in tens first from 0 and then from single-digit numbers. Repeat backwards first from 100 and then from numbers between 90 and 100. Ask the children to close their eyes to visualise the effect of adding/subtracting ten/one. <p>Q What does 14 look like? How many groups of 10? How many extra ones? What does 24 look like? What have we added on? And 25? What have we added on this time?</p> <p>Q What does 35 look like? How many groups of 10? What does 25 look like? How much have we taken away? And 24? What have we taken away this time?</p>	<p>Add 9 by adding 10 and adjusting by 1.</p> <p>Explain methods orally and where appropriate in writing.</p> <p>VOCABULARY added on subtracted taken away</p> <p>RESOURCES Bead string or OHT 3.1 Activity sheet 3.1 An OHT of Activity sheet 3.1 Class hundred square</p>	<ul style="list-style-type: none"> Write $24 + 10$ on the board. <p>Q How would we do this on the bead string? What would the answer look like?</p> <p>Do this on the bead string (or write on OHT 3.1).</p> <ul style="list-style-type: none"> Write $24 + 9$ on the board. <p>Q What if we only wanted to add 9 onto 24, not 10? Have we added too much or too little? What could we do now?</p> <ul style="list-style-type: none"> Establish that you have added on one too many, and so you need to slide one bead back again. Show this on the bead string. Repeat starting with other two-digit numbers, first adding 10 and then moving one back so that only 9 has been added. Draw the first calculation on an empty number line to show that you added 10 on at first, but this was a bit too much and so you had to come back a little.  <p>Write $24 + 10 - 1 = 33$ on the board and discuss how this relates to the number line.</p> <ul style="list-style-type: none"> Write $35 + 9$ on the board. Ask children to help you draw the same steps on an empty number line, asking them to explain what is happening. <p>Record $35 + 10 - 1 = 44$ and explain how this relates to the number line.</p> <ul style="list-style-type: none"> Write the following numbers on the board and ask the children to add 9 to each of them. They should help each other in pairs, recording the whole number sentences in their books and drawing number lines if they find them helpful. <p>26 43 78 39 95 20 50 90 100</p>	<p>Q Which questions were hardest? Easiest? Why?</p> <ul style="list-style-type: none"> Ask a child to find 26 on the hundred square. <p>Q Where would we land if we added 10 onto 26? Where would we land if we then took 1 away? What shape would we move through? How is this different to adding 11?</p> <ul style="list-style-type: none"> Say that today you have been adding 9, and have found it helpful to add 10 first, as that is an easy number to add, and then to subtract 1. Say that tomorrow you will be subtracting 9. <p>Q How could subtracting 10 be helpful if we wanted to subtract 9?</p> <p>HOMEWORK – Give out Activity sheet 3.1. Demonstrate how to play the game using an OHT of the activity sheet. Play the first few moves with you as Frog one and the class as Frog two. Ask the children to play the game with someone at home.</p> <p>By the end of the lesson, children should be able to:</p> <ul style="list-style-type: none"> add 9 to any two-digit number by adding 10 and subtracting 1. <p>(Refer to supplement of examples, section 5, page 35.)</p>

Planning sheet	Day Four	Unit 3 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
<p>Say the number that is 10 more/less than any given two-digit number.</p> <p>VOCABULARY add subtract sign</p> <p>RESOURCES Whiteboards</p>	<ul style="list-style-type: none"> Write the following number sentences on the board: $35 \square 10 = 45$ $56 \square 10 = 66$ $67 \square 10 = 57$ $29 \square 10 = 19$ $52 \square 10 = 62$ $27 \square 10 = 37$ $97 \square 10 = 87$ $100 \square 10 = 90$ <p>Q What is missing?</p> <ul style="list-style-type: none"> Talk through the first one, establish that the operation sign is missing, and which sign it is. <p>Q Is it the add or subtract sign? How do you know? How can you check?</p> <ul style="list-style-type: none"> Point to each question in turn and give the children some thinking time to decide what the missing sign might be. Ask them to respond by writing + or – on their whiteboards and holding them up to show you. 	<p>Subtract 9 by adding 10 and adjusting by 1.</p> <p>Explain methods orally and where appropriate in writing.</p> <p>VOCABULARY add subtract count back count on</p> <p>RESOURCES Bead string (or OHT 3.1) Class hundred square Whiteboards</p>	<ul style="list-style-type: none"> Recap subtracting tens using the bead string (or OHT 3.1).  Focus on the changing tens digit taking time to talk about the colour pattern e.g. 68 to 60 to 58 and looking at the repeated colour pattern. Write $48 - 10$ on the board. <p>Q How would we do this on the bead string? What would the answer look like?</p> <p>Do this on the bead string (or write on OHT 3.1).</p> <ul style="list-style-type: none"> Write $48 - 9$ on the board. <p>Q What if we only wanted to subtract only 9 not 10 from 48? Have we subtracted too much or too little? What could we do now?</p> <p>Establish that you have subtracted one too many, and so you need to slide one bead back again. Show this on the bead string</p> <ul style="list-style-type: none"> Repeat starting with other two-digit numbers, first subtracting 10 and then moving one back so that only 9 has been subtracted. Draw the first calculation on an empty number line to show that you subtracted 10 at first, but this was a bit too much and so you had to come back a little.  <p>Write $48 - 10 + 1 = 39$ on the board and discuss how this relates to the number line.</p> <ul style="list-style-type: none"> Write $35 - 9$ on the board. Ask children to help you draw the same steps on an empty number line, asking them to explain what is happening. Write the following numbers on the board and ask the children to subtract 9 from each of them. They should help each other in pairs, recording the whole number sentences in their books and drawing number lines if they find them helpful. 26 43 78 39 95 20 50 90 100 	<ul style="list-style-type: none"> Ask a child to find 36 on the hundred square. <p>Q Where would we land if we subtracted 10 from 36? Where would we land if we then added 1? What shape would we move through? How is this different to subtracting 11?</p> <ul style="list-style-type: none"> Write the following number sentences on the board and ask the children to decide whether 9 has been added or subtracted. They should write the correct sign on their whiteboards and hold them to show you. $35 \square 9 = 44$ $56 \square 9 = 65$ $67 \square 9 = 58$ $29 \square 9 = 20$ $52 \square 9 = 61$ $27 \square 9 = 18$ $97 \square 9 = 88$ $100 \square 9 = 91$ <p>Q Which question was the easiest? Why?</p> <p>By the end of the lesson, children should be able to:</p> <ul style="list-style-type: none"> subtract 9 by subtracting 10 and adding 1; explain orally and record on a number line how to add and subtract 9. <p>(Refer to supplement of examples, section 5, pages 35, 65)</p>

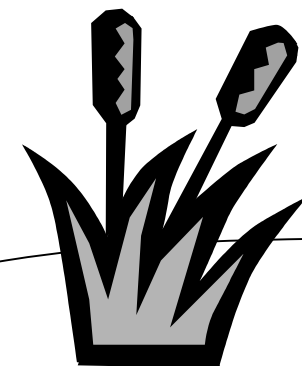
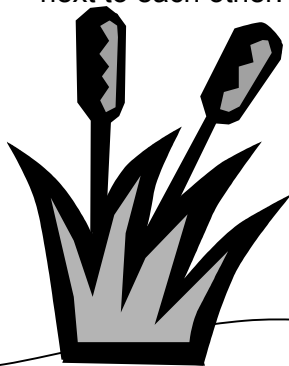
Planning sheet	Day Five	Unit 3 <i>Addition and subtraction</i>	Term: <i>Autumn</i>	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
<p>Say the number that is one or ten more/less than a given two-digit number.</p> <p>VOCABULARY two-digit number one more one less ten more ten less</p> <p>RESOURCES Two-digit numbers on cards</p>	<ul style="list-style-type: none"> Ask the children to form small groups. Give a two-digit number to one child in each group and ask them to come and stand at the front. <p>Explain that the seated children have to 'win back' the person from their group by giving a fact about the number they are holding, using one more than or one less than. For example, if a child is holding the number 27, possible responses could be: 27 is one more than 26; or 27 is one less than 28.</p> <p>Q If 27 is one more than 26, what is one less than 27? If 27 is one less than 28, what is one more than 27?</p> <ul style="list-style-type: none"> Repeat, choosing a different child from each group. This time ask the seated children to give a fact about the number they are holding, using ten more than or ten less than. For example, if a child is holding the number 27, possible responses could be: 27 is ten more than 17; or 27 is ten less than 37. <p>Q If 27 is ten more than 17, what is ten less than 27? If 27 is ten less than 37, what is ten more than 27?</p>	<p>Add/subtract 9 or 11: add/subtract 10 and adjust by 1.</p> <p>Explain methods orally and were appropriate in writing.</p> <p>VOCABULARY added taken away check</p> <p>RESOURCES Activity sheet 3.2 Coloured pencils</p>	<ul style="list-style-type: none"> Write the following number sentences on the board: $10 + 10 = 20$; $15 + 10 = 25$; $20 + 10 = 30$; $25 + 10 = 35$. <p>Point to each in turn and ask what the answer would be if you had only added 9, not 10. Then point to each and ask what the answer would be if you added 11 instead of 10.</p> <p>Q If we add 9 instead of 10, will the answer be smaller or larger? If we add 11 instead of 10, will the answer be smaller or larger? Thinking about what we were doing last week, which two numbers can you easily add 9 onto straight away without adding 10 and then taking away 1?</p> <p>Remind the children that it is easy to add 9 to tens numbers such as 10, 20 and 30.</p> <ul style="list-style-type: none"> Write the following number sentences on the board: $25 \square\square = 36$ $25 \square\square = 34$ $25 \square\square = 14$ $25 \square\square = 16$ <p>Say that each number sentence has a sign missing, + or –, and a number missing, 9 or 11.</p> <p>Ask the children to discuss in pairs what might be missing each sentence.</p> <p>Q Has something been added or taken away? How do you know?</p> <p>If children need help, write $25 + 10 = 35$ and $25 - 10 = 15$ by the side of the first group of number sentences and ask them to carry on discussing in pairs what might be missing in each of the first four number sentences.</p> <p>Q Do these number sentences help? What other clues do you have? Which ones have an + sign missing? Is the answer bigger or smaller than if you had added 10 on? Which ones have a – sign missing? Are the answers bigger or smaller than if you had subtracted 10?</p> <p>Take feedback from the class, asking for their reasoning, agreeing on what goes on the boxes for each sentence and checking that the answers 'work'.</p> <p>Q How could we check our answers?</p> <ul style="list-style-type: none"> Give out Activity sheet 3.2. This is the same 'game board' as they had for homework, but the calculations have changed. Remind them how to play by playing it with them as a class for a few moves, with you as Frog one and the class as Frog two. Point out that the numbers on the stepping stones are the answers to the calculations on the right. Explain that they will play the game in pairs, one frog starting on 31 and the other on 29. They have to say which question has the answer on the stepping stone they want to hop onto. They should then check the answer; if they are right they colour in the stepping stone in their colour. The aim is to get across to the other side before the other frog. They do not have to hop across stones in a straight line, but can only hop onto stones next to each other. 	<ul style="list-style-type: none"> Discuss how they guessed which calculation was the one they needed for their stepping stone. <p>Q What clues did you use? Did the four number sentences on the board help?</p> <ul style="list-style-type: none"> Write the following calculations on the board and ask the children to discuss in pairs how they might be tackled: $35 + 9$ $35 - 11$ $10 + 35$ $35 - 9$ $11 + 35$ $9 + 35$ <p>Take feedback.</p> <p>Q Are there any calculations that you might do in a different order? Which answers will be bigger than 35? Which will be smaller? Which will be the biggest answer? The smallest?</p> <ul style="list-style-type: none"> Remind the children that it is often easier to put the larger number first. <p>By the end of the lesson, children should be able to:</p> <ul style="list-style-type: none"> mentally add or subtract 9 or 11 to/from any two-digit number; put the larger number first in order to count on. <p>(Refer to supplement of examples, section 5, pages 33 and 35.)</p>



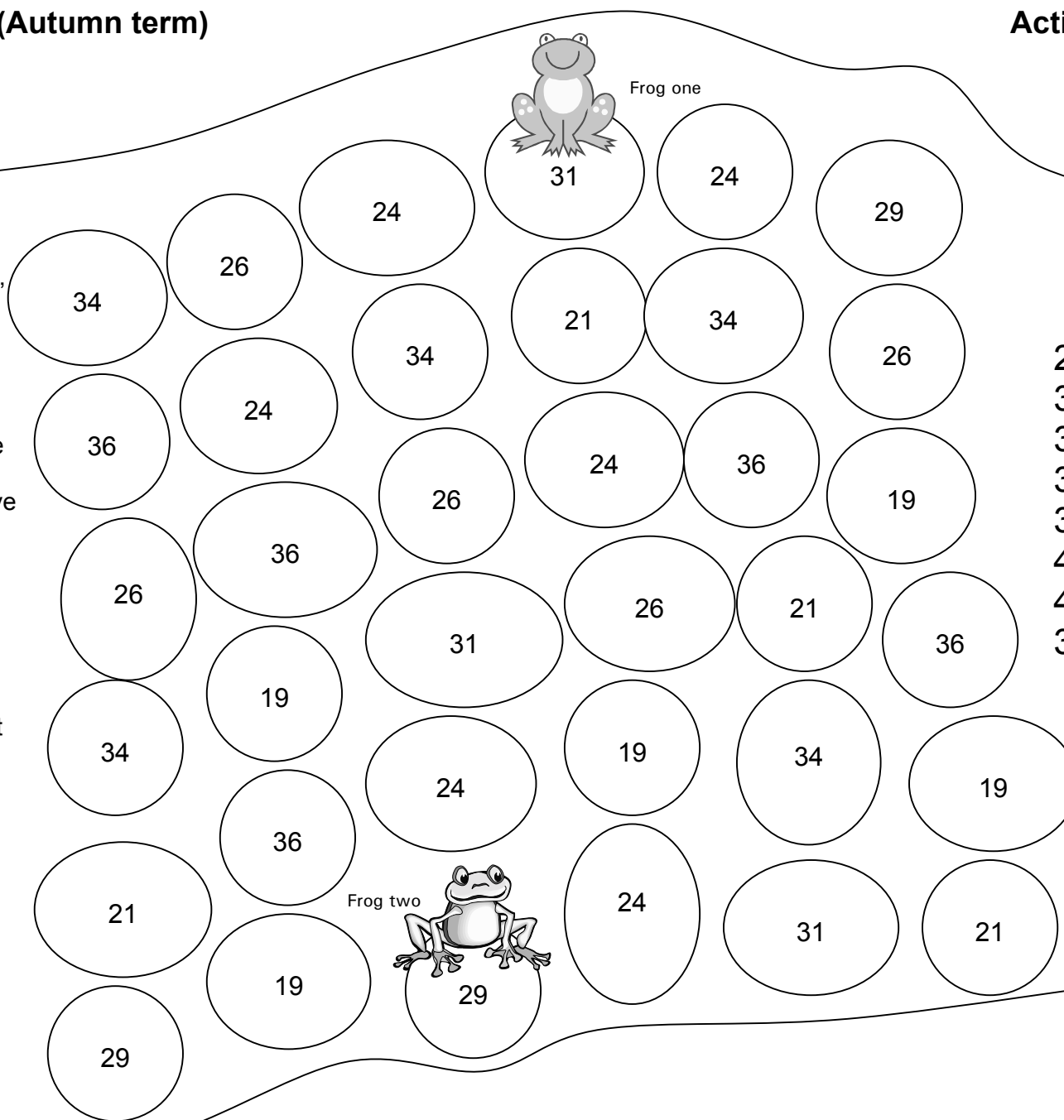
- Play this game in pairs (one person as Frog one and one as Frog two). You will need two pencils/pens in different colours.
- Choose a stepping stone to land on and guess which calculation will have that number as the answer. Do the calculation. If you are right, colour in the stepping stone in your colour.
- Take it in turns. The first frog to get to the other side is the winner. Your stepping stones do not have to be in a straight line, but they should be next to each other.



$10 + 9$
 $10 + 11$
 $15 + 9$
 $15 + 11$
 $20 + 9$
 $20 + 11$
 $25 + 9$
 $25 + 11$



- Play this game in pairs (one person as Frog one, and the other as Frog two). You will need two pencils/ pens in different colours.
- Choose a stepping stone to land on and guess which calculation will have that number as the answer. Do the calculation. If you are right, colour in the stepping stone in your colour.
- Take it in turns. The first frog to get to the other side is the winner. Your stepping stones do not have to be in a straight line, but they should be next to each other.



$29 - 10$
 $31 - 10$
 $34 - 10$
 $36 - 10$
 $39 - 10$
 $41 - 10$
 $44 - 10$
 $36 - 10$

