

Unit 4
Money and real life problems
Year 1
Summer term

Five daily lessons

Merseyside Consultants'
Cluster Group

This Unit Plan is designed to guide your teaching.

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

Unit Objectives

Year 1

Use mental strategies to solve simple problems set in 'real life' in the context of money, **using counting, addition, subtraction, doubling and halving, explaining methods and reasoning orally**
Recognise coins of different values
Find totals and change from up to 20p
Work out how to pay an exact sum using smaller coins
Choose and use appropriate number operations and mental strategies to solve problems

Reception

Link Objectives

Year 2

Resources needed to teach this unit:

Resources for Post Office. Cards, parcels, stationary etc.

Mega money or OHP money or magnetic money.

Pots of coins containing 1ps, 2p, and 5ps.

Resource sheets 1.1, 1.2 and 1.3. (Day 5)

Use developing mathematical ideas and methods to solve practical problems involving counting and comparing in a real life or role play context.
Begin to understand and use the vocabulary . Sort coins, including the £1 and £2 coins, and use them in role play to pay and give change.

Choose and use appropriate operations and efficient calculation strategies to solve problems
Use mental addition and subtraction, simple multiplication and division to solve simple word problems involving numbers in 'real life' (money) using one or two steps
Find totals, give change and work out which coins to pay
Explain how a problem was solved orally
Check results of calculations
Use - + = signs to record mental additions and subtractions in a number sentence

(Key objectives in bold)

Planning sheet	Day One	Unit 4 Money and real life problems	Term: Summer	Year Group: 1
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions
		<p>Recognise coins of different values</p> <p>Work out how to pay an exact sum using smaller coins</p> <p>VOCABULARY</p> <p>Penny Pence Value Worth Equal/equivalent How many/how much? Match Price Cost Total Bill Altogether Add/addition Enough Exact</p> <p>RESOURCES</p> <p>Large money Small money Whiteboard and pens Pupil whiteboard and pens Post Office Resources</p>	<p>Introduce Post Office resources to the children. Read together prices labelled on the items and ask children appropriate questions such as "Which costs more?" " Which item is the most expensive/ cheapest?"</p> <p><i>Tell the children that they are going to find out how to work out the total cost of 2 items and how to pay the right amount using coins.</i></p> <p>Using the resources provided tell the children a story such as "I need to buy a birthday card and a congratulations card. How much will it cost?" Working in pairs on the whiteboards children use mental addition strategies to find the total. Ask the children</p> <p>What is the total cost of the 2 cards?</p> <p>How did you work out the answer?</p> <p>Show and draw attention to the fact that the prices can be added up in any order but the most efficient way is to start with the highest number and count on.</p> <p>Using the responses from the children model the most efficient way to find the total.</p> <p>How would we write this as a number sentence?</p> <p>Using the responses from the children write the number sentence on the whiteboard emphasising the pence sign and the operation and equals sign. Establish that the number sentence tells us how much the 2 cards will cost.</p> <p>The 'Post Office master' then gives correct bill to the 'customer' Ask the children</p> <p>Can you find the exact coins to match a total? What coins could the customer use to pay the bill? Work as a class using the mega money and find the coins to match the exact total.</p> <p>Can anyone show me a different way of using the coins to match the total?</p> <p>Work through a couple of correct examples e.g. for 12p 10p 2p 5p 5p 2p 10p 1p 1p</p> <p>Discuss why we wouldn't choose to use (12) 1 pence coins though it would still be correct Establish that all the examples given are correct as they all total 12p. Work through a second example. This time ask the children to work in pairs to write the appropriate number sentence on the pupil whiteboards and to choose the correct amount of money from the "money pots".</p>	<p>Ask the children to tell you what they have been learning to do in the lesson today and refer them back to the objectives at the start of the lesson.</p> <p>What calculation do we need to do to find the total cost of 2 items?</p> <p>Establish that we use addition to find the total.</p> <p>Put up 17p in coins for the whole class to see. E.g. 10p 5p 2p</p> <p>How much are these coins worth altogether?</p> <p>Working in pairs, the children have to decide which 2 items the customer ordered to cost exactly this amount. Ask the children to record the appropriate calculation.</p> <p>Put a different amount of money on the board and ask the children the same question.</p> <p>Write the key vocabulary from the lesson onto the board and read through and discuss with the children to establish the learning that has taken place during the lesson</p>

Planning sheet		Day Two	Unit 4 - Money and Real life problems	Term Summer	Year Group 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
		<p>Use mental strategies to solve simple problems set in 'real life' in the context of money, using counting, addition, subtraction, doubling and halving, explaining methods and reasoning orally</p> <p>Recognise coins of different values</p> <p>Work out how to pay an exact sum using smaller coins</p> <p>VOCABULARY</p> <p>Penny Pence Value Worth Equal/equivalent How many/how much? Price Cost Total Bill Change Altogether Add/addition</p> <p>Double/doubling</p> <p>RESOURCES</p> <p>Large money Small money Whiteboards and pens</p> <p>Post Office Resources</p>	<p>Using the Post Office Resources ask the children to find a way of working out what several of one item would cost.</p> <p>If one birthday card costs 9p, how much would 2 birthday cards cost? Discuss the ways that children found the answers and make links to their knowledge of doubling numbers</p> <p>Can you show me the exact coins to pay for the 2 cards?</p> <p>Accept several examples and then using a new example e.g. 2 stamps costing 7p each tell the children that they have to:</p> <p>Find out the total cost of 2 stamps. Show the exact amount using the least number of coins.</p> <p>Allow the children time to solve this problem in pairs.</p> <p>Establish that the least number of coins to show 14p would be 3 coins. Then ask the children</p> <p>Can you show 14p using 4 coins? There is more than one possible correct answer</p> <p>Collect children's answers and confirm both possible solutions have been found. Can you show 14p using 5 coins? Is there more than one correct answer? Collect children's answers and confirm both possible solutions have been found. Can you show 14p using 6 coins? Is there more than one correct answer? Collect children's answers and confirm both possible solutions have been found.</p> <p>Repeat for different items in the Post Office.</p>	<p>Put 16p(10p, 5p, 1p) in coins onto the whiteboard.</p> <p>Tell the children that you used this amount of money to buy two identical items at the post office.</p> <p>Can the children tell you which items they were?</p> <p>How did they use their knowledge of doubling and halving to work out the answer?</p> <p>Ask the children to find the same amount (16p) in their money pots using only 10p and 2p(s).</p> <p>How many coins did they use?</p> <p>Without using the coins ask the children: What if they only had 2p(s) in their pots; Could they pay the total cost of 16p using only 2p(s)? How many 2p(s) would they need? How did they work out the answer?</p> <p>Allow the children the opportunity to offer their methods to solve the problem.</p> <p>Confirm that one strategy would be to count on/ or back in 2s to/from 16. Count on to 16 in 2s putting up mega money 2p(s) as you count. Repeat counting backwards removing the 2p coins.</p>	

Planning sheet		Day Three	Unit 4 Money and real life problems	Term: Spring	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
		<p>Recognise coins of different values Find totals and change from up to 20p Work out how to pay an exact sum using smaller coins</p> <p>VOCABULARY</p> <p>Penny Pence Value Worth Equal/equivalent How many/how much? Match Price Cost Total Bill Change Altogether Add/addition Subtract/subtraction</p> <p>RESOURCES</p> <p>Large money Small money Whiteboards and pens Post Office Resources Class puppet</p>	<p>Show the children a selection of items from the post office. Put a price card by each item to show the prices – a selection of prices up to 10p.</p> <p>Select a child to choose two items to buy. Take the appropriate price cards and put them onto the whiteboard with the lowest price first. E.g. $5p$ $9p$</p> <p>Ask the children;</p> <p>If I want to buy these two items how do I find the total cost?</p> <p>How would I write this as a number sentence?</p> <p>Invite a pupil to come to the whiteboard and fill in the missing operation sign.</p> <p>Demonstrate to the children that the order of the prices can be changed to make the final total easier to calculate. Move the cards so the number sentence reads</p> $9p + 5p = 14p$ <p>Model finding the total on a blank number line by partitioning 5 into 1 and 4.</p> <p>Put a 20p coin onto the whiteboard. Explain to the children that this is the only coin you have in the purse today.</p> <p>Will I still be able to afford the two items that cost 14p?</p> <p>Confirm the children understand that as 20p is worth more than 14p you will be able to buy the two items.</p> <p>What am I going to need from the post office master?</p> <p>Discuss the idea of giving change. Ask the children;</p> <p>How will we work out the amount of change owing from 20p if the items cost 14p altogether?</p> <p>Model finding the difference between 14p and 20p. Confirm that the amount of change will be 6p. Using the mega money, show 6p using 5p and 1p. Discuss that idea that this is only one way of making 6p and there are other coins which can be used to give the correct answer.</p> <p>Repeat using different examples.</p>	<p>Ask the children to tell you what they have been learning to do in the lesson today and refer them back to the objectives at the start of the lesson.</p> <p>What calculation do we need to do to find the total cost of 2 items?</p> <p>What calculation do we need to do to find the change from 20p?</p> <p>Introduce class puppet to the children. Tell the children that the puppet was asleep when they were learning to find the totals and change from 20p. He would really like to learn what they have been doing today.</p> <p>Can you explain to the puppet how we find the total cost of two items?</p> <p>Give the children the opportunity to explain their methods of finding totals and giving change to the puppet.</p> <p>Demonstrate their methods on the whiteboard and address any errors and misconceptions in their understanding if the situation arises.</p>	

Planning sheet		Day Four	Unit 4 Money and real life problems	Term: Summer	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions	
		<p>Recognise coins of different values Find totals and change from up to 20p Work out how to pay an exact sum using smaller coins</p> <p>VOCABULARY</p> <p>Penny Pence Value Worth Equal/equivalent How many/how much? Match Price Cost Total Change Altogether Add/addition Subtract/subtraction</p> <p>RESOURCES</p> <p>Large money Small money Whiteboards and pens Post Office Resources</p>	<p>Show the children a selection of items from the post office. Put a price card by each item to show the prices – a selection of prices up to 10p. Change the labels from yesterday's activities to avoid duplication.</p> <p>Review the objectives taught in Day Three lesson.</p> <p>Tell the children that today they are going to choose which two items they want to buy from the post office. They are going to work out the total cost for the two items and write the appropriate number sentence.</p> <p>Working in pairs, allow a few minutes for the children to make their selection and write the number sentence onto their whiteboards.</p> <p>Take responses and demonstrate a few examples on the board. Ask the children;</p> <p>Now that you have found the total cost can you work out what change you would have from 20p?</p> <p>Clarify how they would work this out and allow the children time to work in their pairs finding the correct change.</p> <p>Take responses and demonstrate a few examples on the board. Ask the children;</p> <p>Now that you know what change you would have from 20p, can you show me that amount using the coins?</p> <p>When the children have been given the opportunity to select the correct coins for their change, choose an example where children have the same amount of change but have used different coins. If this does not occur, use your own example.</p> <p>Pair A have 5p change and they have chosen a 5p coin and Pair B have 5p change but they have used a 2p, 2p and 1p. Are both these answers correct? Are there any other possible combinations of coins?</p> <p>Working with their own examples, ask the children to think of as many different combinations as possible. Record their answers using coins or writing them onto their whiteboards.</p> <p>Put the total cost of two items onto the whiteboard e.g. 15p. Tell the children that this was how much it cost when you went shopping at the post office.</p> <p>Which two items did I buy?</p> <p>Allow the children time to work out the answer in their pairs.</p> <p>How do you know that is the correct answer?</p> <p>What change would I have been given from 20p?</p>	<p>Put a few totals onto the whiteboard e.g. 14p, 17p 11p. Tell the children that these are the total costs of two items.</p> <p>Can they find the two items and match them to their total?</p> <p>Put some coins onto the whiteboard to match the change from a total of two items not yet used e.g. 8p Tell the children</p> <p>I received this change when I bought two items. Which two items did I buy?</p> <p>Can you explain how you worked out the answer?</p> <p>Point to the coins on the whiteboard.</p> <p>Could I have received 8p change with other coins?</p> <p>Work through all the possibilities with the class.</p> <p>Write the key vocabulary from the lesson onto the board and read through and discuss with the children to establish the learning that has taken place during the lesson</p>	

Planning sheet	Day Five	Unit 4 Money and real life problems		Term: Summer	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions	
		<p>Use mental strategies to solve simple problems set in 'real life' in the context of money, using counting, addition, subtraction, doubling and halving, explaining methods and reasoning orally</p> <p>Find totals and change from up to 20p</p> <p>VOCABULARY</p> <p>Penny Pence Value Worth Equal/equivalent How many/how much? Match Price Cost Total Change Altogether Add/addition Subtract/subtraction</p> <p>RESOURCES Resource sheets 1.1, 1.2 and 1.3</p> <p>Whiteboards and pens</p>	<p>Show the class a short problem – Resource sheet 1.1</p> <p>Read together and ask for their ideas about how to solve it.</p> <p>What do we need to find out?</p> <p>What is the important information here?</p> <p>What operation do we need to use?</p> <p>How did you find the answer? What did you do first?</p> <p>How can we write a number sentence for that calculation?</p> <p>After choosing one method and writing up the number sentence, ask the children if they can suggest a way to check that this answer is correct.</p> <p>Take suggestions and show on the board that they can add in a different order to check the answer. Show second problem (Resource sheet 1.2)</p> <p>Repeat the process of solving the problem through discussing the relevant information and choosing the appropriate operation.</p> <p>Ask the children how many different ways they can think of to check that the answer is correct.</p> <p>Discuss the suggestions and try them out, showing on the board. Make links with the fact that subtraction and counting on are linked.</p> <p>Present Resource sheet 1.3 to the children. Repeat the process of solving the problem through discussing the relevant information and choosing the appropriate operation.</p> <p>Allow the children time to investigate the answers independently. Encourage the children to record their working and solutions to the problem.</p>	<p>Refer the children to Resource sheet 1.3.</p> <p>Work through each problem with the children. Discuss their suggestions and try them out, demonstrating on the board.</p> <p>After choosing one method and writing up the number sentence, ask the children if they can suggest a way to check that this answer is correct.</p> <p>To complete the activity the children are to calculate the change from 20p for each parcel.</p> <p>Again work through each example allowing the</p>	

Clare wants to buy



And

5p

7p

How much does it cost ?

What change will she have from 20p?

Liam wants to buy



How much money does he need?

What change will he have from 20p?

Each parcel needs two stamps to match the cost of postage. Can you choose the correct stamps for each parcel? The stamps can be used more than once.

