

Unit 4
Money and real life problems
 Year 1
 Spring 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.

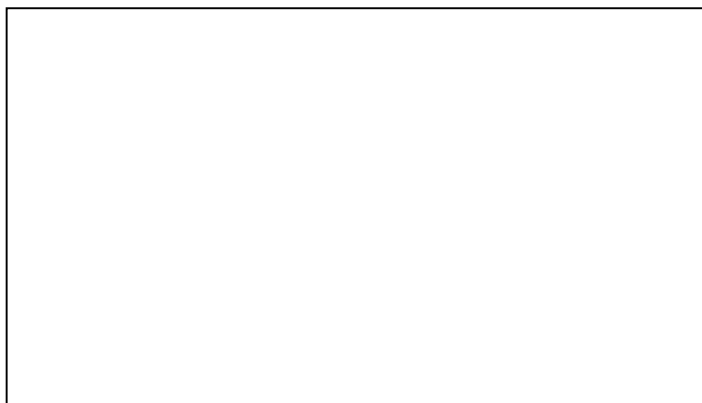
Unit Objectives

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

Link Objectives

Year 2



- **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

Resources needed to teach this unit:

- ‘Mega money’
- Small money
- Real money
- ‘Café’ area
- Plastic crockery/cutlery
- Waiter’s outfit
- Order notepad/pen
- Bills/Receipts
- Menus
- Price list
- Special offer signs
- ‘Food’ items to match menu
- Teddy/toys
- Sweets
- Resource sheet – menu
- Resource sheet – poster
- Resource sheet – Your bill
- Resource sheets – fairground
- Resource sheet – teddy
- Resource sheet 1.1
- Resource sheet 1.2

(Key objectives in bold)

| Planning Sheet | Day One | Unit 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</p> <p>VOCABULARY</p> <p>Penny Pence Value Worth Equal/equivalent How many/how much? Match Price Cost Total</p> <p>RESOURCES</p> <p>Large money Small money Café area Whiteboards and pens Large price list Resource sheet 1</p> | <p>Set out large money coins and revise their values with the class. Order the coins on the whiteboard starting with 1p. Chant the name of the coins. Point to a coin and ask the children :</p> <ul style="list-style-type: none"> • What is the name of this coin? • What is the value of this coin? • How much is this coin worth? <p>Take a coin away and ask the children :</p> <ul style="list-style-type: none"> • Which coin is missing? • How did you work that out? <p>Set up a very simple 'café' area – couple of chairs, table, plates, etc. Have a large poster price list, Resource Sheet 1.</p> <p>Ask questions.</p> <ul style="list-style-type: none"> • What is the price of a cup of coffee? (7p) • Which coins would you use? • Are there any other coins you could use that would still total 7p? <p>Using the big money show a couple of examples of coin combinations to 7p.</p> <p>Show the children 5p and 1p.</p> <p>Which item could I buy for exactly this amount?</p> <p>Work through all the items on the poster asking the questions above.</p> <p>Which item is the most expensive?</p> <p>Which item is the cheapest?</p> <p>Order / list the items accordingly.</p> | <p>Play mystery purse with the children. Put a coin in a large purse. Tell the children that you have a coin in your purse. It is worth more than 20p but less than a £1. Ask children What coin is in my purse?</p> <p>Ask them to point to it on the money display on the whiteboard.</p> <p>Play the game a second time. Tell the children that you have a coin in your purse. They have to ask questions to work out what coin it must be. They must ask at least 3 questions before they can make a suggestion as to which coin it is. The children may need to be prompted into asking these types of questions.</p> <ul style="list-style-type: none"> • Is it silver? • Is it worth less than 50p? • Could I buy a cup of coffee with it? | |

| Planning Sheet | Day Two | Unit 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>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>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 Café area Waiter's 'outfit' Small notepad and pen Whiteboards and pens Large price list Resource sheet – menu Resource sheet – poster Resource sheet – Your bill Pupil whiteboard and pens</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>Choose a child to be the waiter and a child to go to the café and referring to the poster Resource sheet 1 order something simple each – e.g. one thing to eat, one drink... Explain that you want the class to help the waiter to total the prices so that s/he can present the bill.</p> <p>Working in pairs on the whiteboards children use mental addition strategies to total the bill. Ask the children</p> <ul style="list-style-type: none"> ❖ What is the total cost of the 2 items? ❖ How did you work out the answer? <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> <ul style="list-style-type: none"> ❖ How would we write this as a number sentence? <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 items will cost the child who is "buying" from the café.</p> <p>The 'waiter' then gives correct bill to the 'customer' Ask the children</p> <ul style="list-style-type: none"> ❖ Can you find the exact coins to match a total? What coins would the customer give to the waiter to pay the bill? <p>Work as a class using the mega money and find the coins to match the exact total.</p> <ul style="list-style-type: none"> ❖ Can anyone show me a different way of using the coins to match the total? <p>Work through a couple of correct examples e.g. for 13p 10p 2p 1p 5p 5p 2p 1p 10p 1p 1p 1p</p> <p>Discuss why we wouldn't choose to use (13) 1 pence coins though it would still be correct Establish that all the examples given are correct as they all total 13p. 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> <ul style="list-style-type: none"> ❖ What calculation do we need to do to find the total cost of 2 items? <p>Establish that we use addition to find the total.</p> <p>Put up 18p in coins for the whole class to see. E.g. 10p 5p 2p 1p</p> <ul style="list-style-type: none"> ❖ How much are these coins worth altogether? <p>Tell the children a story of the forgetful waiter. He forgot to write down the order from a customer. The customer had given him the exact amount of money 14p. Using the poster Resource sheet 1-</p> <ul style="list-style-type: none"> ❖ Can you tell the waiter which 2 items the customer had asked for? <p>Working in pairs the children have to decide which 2 items the customer ordered. Ask the children to record the appropriate calculation.</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 Three | Unit 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>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>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 Café area Whiteboards and pens Large price list Class toys</p> | <p>Using the price list ask the children to find a way of working out what several of one item would cost.</p> <ul style="list-style-type: none"> If a glass of lemonade costs 5p, how much would 2 cost? Can you show me the right money to pay for the 2 drinks? <p>Discuss the ways that children found the answers and make links to their knowledge of doubling numbers</p> <p>Repeat for different items in the café.</p> <p>Introduce Resource sheet 2, a teddy bear and another toy that the children are familiar with and explain that it is teddy's birthday and he has invited his friend along to the café to have a special birthday tea (extra items could be priced on a separate price list if necessary).</p> <p>Outline the food and drinks/party hats etc. That are ordered – e.g. 2 chocolate biscuits each, one balloon each, a glass of lemonade each etc. Limit the number of items to about 4.</p> <p>Explain to the class that this is going to be a much larger bill than the previous ones and that they are all going to work together to find the total.</p> <p>Divide the children into groups and allocate each specific items to find the cost of such as, the drinks, cakes, balloons and biscuits.</p> <p>They are to work on finding the totals – checking with other pairs in the group the answer is correct and recording their answer in a number sentence using mathematical signs.</p> <p>Extend the activity by asking the children to find the correct coins to match the total. Can they find several correct combinations of coins that equal the total as in Day 2.</p> | <p>In the plenary bring the groups back together and take feedback from them as to how they found the totals</p> <p>Put all totals on the board.</p> <p>When the children have worked out the total cost for 2 of each item, tell them that we need to find the total cost of the bill.</p> <p>❖ What do we need to do to find the total cost of all the items?</p> <p>Establish that they have to add the 4 totals together. Write the 4 totals on the board.</p> <p>❖ How will we begin to solve this problem?</p> <p>Elicit that they need to find the total of 2 of the items and then add these 2 totals together. EG. 2 cakes 10p and 2 balloons 2p. $10p + 2p = 12p$</p> <p>2 ices 8p and 2 sweets 6p $8p + 6p = 14p$</p> <p>$12p + 14p = 26p$</p> <p>Confirm that the children understand that this is the final total. Show the amount, 26p in coins using the mega money.</p> |

| Planning Sheet | | Day Four | Unit 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>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 Bill Change Altogether Add/addition Subtract/subtraction</p> <p>RESOURCES</p> <p>Large money Small money Whiteboards and pens Large price list Resource sheet 3 Class toys</p> | <p><i>Explain to the children that in this lesson they will be investigating (finding out) how to find the cost by adding the prices of 2 items and working out the change from 20p.</i></p> <p>Tell the children that Teddy and his friend are going out for the day. They have each been given 20p to spend. Ask the children to find /show you a 20p piece.</p> <p>Working in pairs, give the children a 20p each or give Teddy and his friend a 20p from the mega money for the children to see.</p> <p>Introduce Resource sheet 3.</p> <p>Teddy and his friend are going to choose 2 items each to buy. Suggest that Teddy wants to buy a burger and a drink.</p> <p>Working in their pairs ask the children to find out how much it would cost Teddy altogether and write the number sentence on their whiteboards.</p> <p>Establish that it would cost teddy 13p to buy the two items.</p> <ul style="list-style-type: none"> ❖ Teddy has a 20p coin. Has he enough money to buy the 2 items? ❖ Has he got the right amount of money? ❖ What does the stall- holder need to give Teddy? <p>Discuss with children how they work out the amount of change Teddy needs. Elicit that they need to find the difference between the cost and the value of the coin.</p> <p>Using a number line, model how to find the difference between 13p and 20p. Confirm that the amount of change owing is 7p.</p> <p>Repeat using different examples for Teddy's friend.</p> <p>Investigate finding the totals and working out the necessary change.</p> | <p>Ask the children to describe to you what calculations they need to do to work out the cost of 2 items and then the change.</p> <p>Model an example for the children and emphasise the 2 step process involved.</p> <p>Tell the children that they have only 10p to spend.</p> <p>Which 2 items can they buy for 10p?</p> <p>What change would they have?</p> <p>How many examples can they find?</p> | |

| Planning Sheet | Day Five | Unit 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 | |
| | | <ul style="list-style-type: none"> Find totals and give change VOCABULARY Penny Pence Value Worth Equal/equivalent How many/how much? Match Price Cost Total Bill Change Altogether Add/addition Subtract/subtraction RESOURCES Whiteboards and pens Resource sheet 1.4– 1.6 | <p>Show the class a short problem – Resource sheet 1.4</p> <p>Read together and ask for their ideas about how to solve it.</p> <ul style="list-style-type: none"> What do we need to find out? What is the important information here? What operation do we need to use? How did you find the answer? What do we do first? How can we write a number sentence for that calculation? <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, count on and back.</p> <p>Show second problem (Resource sheet 1.5) and explain that this time they are to try and find a different way of checking the answer.</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 the answer is correct.</p> | <p>Write 4 calculations on the board.</p> <p>Read through the calculations from Resource sheet 1.6 with the children. Tell the children that you want them to choose the calculation that matches the word problem. Reassure the children that you are not looking for an answer.</p> <p>Read a word problem to the children.</p> <ul style="list-style-type: none"> Which calculation matches this word problem? How did you know that? <p>Discuss the clues from the vocabulary. E.g. altogether, more than.</p> <p>Repeat several times.</p> <p>Work through one of the problems as a class, if time allows.</p> | |