

Scheme of Learning

Year 3

#MathsEveryoneCan



**White**

**Rose  
Maths**

Spring - Block 2

**Money**

# Overview

## Small Steps

## NC Objectives

- ▶ Pounds and pence
- ▶ Convert pounds and pence
- ▶ Add money
- ▶ Subtract money
- ▶ Give change

Add and subtract amounts of money to give change, using both £ and p in practical contexts.

# Pounds and Pence

## Notes and Guidance

Children need to know the value of each coin and note and understand what these values represent. They should understand that money can be represented in different ways but still have the same value. Children will need to be able to add coin values together to find the total amount.

## Mathematical Talk

- What is the value of the coin/note?
- What does p mean?
- Why do we have different values of coins and notes?
- What's the difference between £5 and 5p?

## Varied Fluency

Match the amounts that are equal.

Fifteen pounds

Fifteen pence

Fifty pounds

Fifty pence

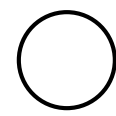
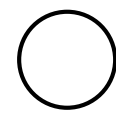


How much money does the jar contain?

The jar contains £\_\_\_ and \_\_\_ p.



Use <, > or = to make the statements correct.



## Pounds and Pence

### Reasoning and Problem Solving

Rosie has 5 silver coins in her purse.

She can make 40p with three coins.

She can also make 75p with three coins.

How much money does Rosie have in her purse?

Rosie has 95 pence in her purse. She has one 20p coin, one 50p coin, two 10p coins and one 5p coin.

Amir has 5 different coins in his wallet.



What is the greatest amount of money he could have in his wallet?  
What is the least amount of money?

Greatest:  
£3 and 80p

Least:  
38p

# Convert Pounds and Pence

## Notes and Guidance

Children convert between pounds and pence using the knowledge that £1 is 100 pence. They group 100 pennies into pounds when counting money. They apply their place value knowledge and use their number bonds to 100

## Mathematical Talk

How many pennies are there in £1?

How can this fact help us to convert between pounds and pence?

How could you convert 600p into pounds?  
How could you convert 620p into pounds?

## Varied Fluency

What is the total of the coins shown?



Can you group any of the coins to make 100 pence?  
How many whole pounds do you have?  
How many pence are left over?  
So there is £\_\_\_ and \_\_\_ p.

Write the amounts in pounds and pence.



Write each amount in pounds and pence.

165p    234p    199p    112p    516p

# Convert Pounds and Pence

## Reasoning and Problem Solving

Dexter has 202 pence.

He has **one** pound coin.

Show five possible combinations of other coins he may have.

Children may work systematically and look at combinations of coins that make £1 to help them.

Whitney thinks that she has £10 and 3p. Is she correct?



Whitney is wrong, she has £12 and 1p. Whitney has not considered the value of the coins she has.

Explain your answer.

Dora thinks there is more than £5 but less than £6. Is Dora correct?



Convince me.

Dora is incorrect. There is £6 and 30p.

This is greater than £6

# Add Money

## Notes and Guidance

Children add two amounts of money using pictorial representations to support them.

They are encouraged to add the pounds first and then add the pence. Children then exchange the pence for pounds to complete their calculations.

## Mathematical Talk

Can you group any of the coins to make a pound?

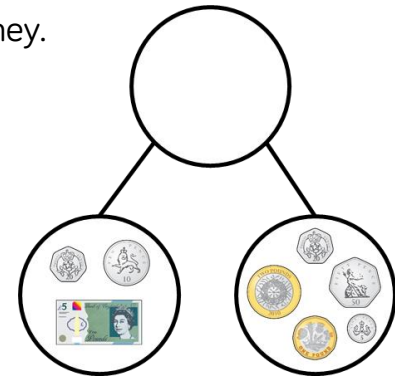
Can you use estimation to support your calculation?

Why is adding 99p the same as adding £1 and taking away 1p?

## Varied Fluency

Mo uses a part-whole model to add money.

£\_\_\_ and \_\_\_ p + £\_\_\_ and \_\_\_ p  
 There is £\_\_\_ and 105p.  
 105p = £\_\_\_ and \_\_\_ p  
 Altogether there is £\_\_\_ and \_\_\_ p.



Use Mo's method to find the total of:

£10 and 35p and £4 and 25p      £10 and 65p and £9 and 45p

What calculation does the bar model show?  
 Find the total amount of money.



A book costs £5 and 99p.  
 A magazine costs £1 and 75p.  
 How much do the book and magazine cost altogether?



# Add Money

## Reasoning and Problem Solving

Dora bought these muffins.



Muffins cost 35p each.  
How much did Dora spend?

Tommy bought three times as many muffins as Dora.  
How many muffins did Tommy buy?  
How much money did Tommy spend on muffins?

How much more money did Tommy spend than Dora?

Dora spent 105p or £1 and 5p.

Tommy bought 9 muffins.  
He spent 315p or £3 and 15p.

Tommy spent 210p or £2 and 10p more than Dora.

Rosie has £5  
Has she got enough money to buy a car and two apples?



£3 and 35p

£2 and 55p



85p

75p

What combinations of items could Rosie buy with £5?

£3 and 35p + 85p + 85p = £5 and 5p

She does not have enough money.

Rosie could buy

- 1 car and 2 balloons
- 1 car, 1 apple and 1 balloon
- 1 magazine and 2 apples

# Subtract Money

## Notes and Guidance

Children use different methods to subtract money. They will see examples where they can physically remove the coins, and examples where they will need to use their knowledge of converting money to exchange £1 for 100 pence. Children also use number lines to count on or back to calculate the difference between two amounts.

## Mathematical Talk

Can we make 50p in a different way to make it easier to subtract 10p physically?  
 Which number should I place on the number line first?  
 Could I count backwards on the number line?  
 Does this change the difference?  
 Do we need to exchange any pounds for pence?

## Varied Fluency

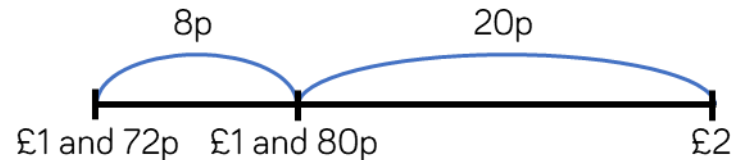
- Alex has £3 and 50p. She gives £2 and 10p to her sister. How much money does she have left?



$$£3 - £2 = £\_\_\_ \quad 50p - 10p = \_\_\_ p$$

Alex has £\\_\\_\\_ and \\_\\_\\_ p remaining.

- Tommy has £1 and 72p. Rosie has £2. How much more money does Rosie have than Tommy?



Rosie has \\_\\_\\_ p more than Tommy.

- A T-shirt costs £7 and 20p. In a sale, the T-shirt costs £5 and 40p.



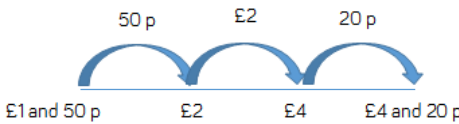



How much has the cost of the T-shirt been reduced by?

# Subtract Money

## Reasoning and Problem Solving

<p>Jack has £2 and 90p. Teddy has three times as much money as Jack.</p> <p>How much more money does Teddy have than Jack?</p> <p>Rosie has twice as much money as Teddy.</p> <p>How much more money does Rosie have than Jack?</p>	<p>Jack: £2 &amp; 90p Teddy: £8 &amp; 70p Rosie: £17 &amp; 40p</p> <p>Teddy has £5 and 80p more than Jack.</p> <p>Rosie has £14 and 50p more than Jack.</p> <p>Use coins to support children in calculating.</p>
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<p>Three children are calculating £4 and 20p subtract £1 and 50p.</p> <p> <math>£4 - £1 = £2</math>  <math>20p - 50p = 30p</math>  <math>£1 + 30p = £1 \text{ and } 30p</math> </p> <p>                   Annie             </p> <p>                   Teddy             </p> <p>  </p> <p>The difference is £2 and 70p.</p> <p> <math>£4 \text{ and } 20p - £2 = £2 \text{ and } 20p</math>  <math>£2 \text{ and } 20p + 50p = £2 \text{ and } 70p</math> </p> <p>                   Eva             </p> <p>Who is correct? Who is incorrect? Which method do you prefer?</p>	<p>Annie's second step of calculation is incorrect. Teddy and Eva both got the correct answer using different methods. Children may choose which method they prefer or discuss pros and cons of each.</p>
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# Give Change

## Notes and Guidance

Children use a number line and a part-whole model to subtract to find change.

Teachers use coins to practically model giving change. Encourage role-play to give children a context of giving and receiving change.

## Mathematical Talk

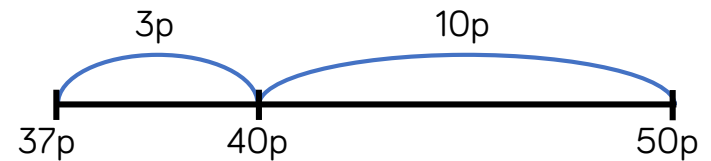
What do we mean by ‘change’ in the context of money?

Which method do you find most effective?

How does the part-whole model help to solve the problem?

## Varied Fluency

- Mo buys a chocolate bar for 37p. He pays with a 50p coin. How much change will he receive?

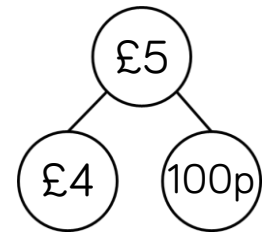


Mo will receive \_\_\_ p change.

Use a number line to solve the problems.

- Ron has £1. He buys a lollipop for 55p. How much change will he receive?
- Whitney has £5. She spends £3 and 60p. How much change will she receive?

- Tommy buys a comic for £3 and 25p. He pays with a £5 note. How much change will he receive? Use the part-whole model to help you.



Use a part-whole model to solve the problem.

- Eva buys a train for £6 and 55p. She pays with a £10 note. How much change will she receive?

# Give Change

## Reasoning and Problem Solving

Dora spends £7 and 76p on a birthday cake.



She pays with a £10 note.  
How much change does she get?

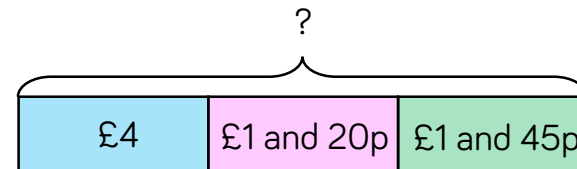
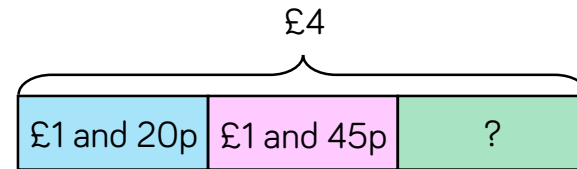
The shopkeeper gives her six coins for her change.  
What coins could they be?

She receives £2 and 24p change.

There are various answers for which coins it could be, e.g. £1, £1, 10p, 10p, 2p, 2p.

Amir has £4  
He buys a pencil for £1 and 20p and a book for £1 and 45p.

Which bar model represents the question?  
Explain how you know.



Use the correct bar model to help you calculate how much change Amir receives.

The first bar model is correct as the whole is £4 and we are calculating a part as Amir has spent money.  
Amir receives £1 and 35p change.