

# Year 2

## Small Steps Guidance and Examples

Block 3 – Measurement: Money

**White Rose Maths**

# Overview

## Small Steps

- Count money – pence
- Count money – pounds (notes and coins)
- Count money – notes and coins
- Select money
- Make the same amount
- Compare money
- Find the total
- Find the difference
- Find change
- Two-step problems

### NC Objectives

Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.

Find different combinations of coins that equal the same amounts of money.

Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.

## Count Money - Pence

### Notes and Guidance

This unit introduces the £ and p symbols for the first time.

Children will count in 1p, 2p, 5p and 10p coins. Because of related facts, children can also count in 20ps.

In this unit, children do not convert between pounds and pence, therefore children will not count in 50ps.

### Mathematical Talk

What is different about the coins you have counted?

What do you notice about the totals?

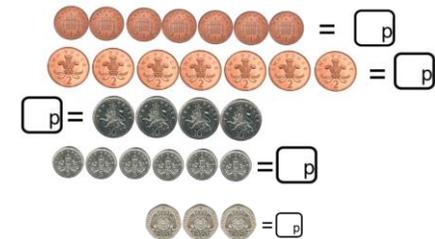
Are silver coins always worth more than bronze coins?

What different ways can you count the coins?

Which is the quickest way?

### Varied Fluency

- 1 Count the money.



- 2 Use  $<$ ,  $>$  or  $=$  to compare the coins.



- 3 Count the money.



# Count Money - Pence

## Reasoning and Problem Solving

Jamie selects four of these coins.



He can use the coins more than once.

What total could he make?

What is the lowest total?

What is the greatest total?

Example answers:

20p, 10p, 10p and 1p makes 41p

5p, 5p, 5p and 5p makes 20p

1p, 20p, 5p and 2p makes 28p

The lowest total would be 1p, 1p, 1p and 1, makes 4p

The greatest total would be 20p, 20p, 20p and 20p makes 80p

Draw coins to make the statements true.



For the first one, any answer showing less than 30p on the right is correct. E.g. two 10p coins.

For the second one, any answer showing less than 25p on the left. E.g. three 2p coins.

# Count Money - Pounds

## Notes and Guidance

The children will continue counting but this time it will be in pounds not pence.  
 The £ symbol will be introduced.  
 Children must be aware that both coins and notes are used for pounds.  
 Children will count in £1, £2, £5, £10 and £20s.  
 In this year group, children work within 100 therefore children will not count in £50s.

## Mathematical Talk

Which is the hardest to count? Which is the easiest? Why?

What do you notice about the amounts?

Does it matter which side the equals sign is?

Can you find the total in a different way?

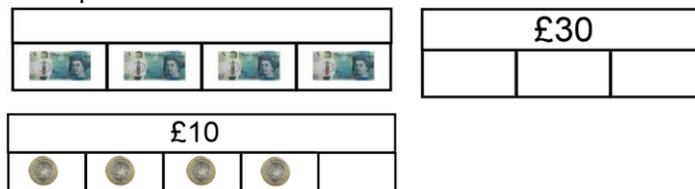
What was your method for counting in 20s?

## Varied Fluency

1 Count the money.



2 Complete the bar models.



3 Match the money to the correct total.

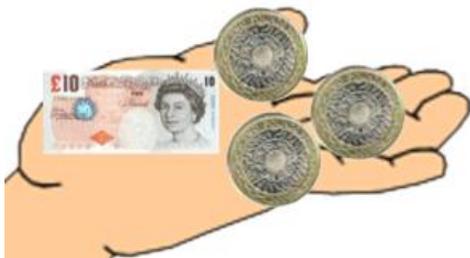


Which is the odd one out? Explain why.

# Count Money - Pounds

## Reasoning and Problem Solving

Dan thinks he has £13.



Is he correct?

Explain why.

No because three £2 coins make £6.

£10 and £6 is equal to £16

He has mistaken his £2 coins for £1 coins.

Explain the mistake.

£2, £4, £6, £7, £8, £10

£7 is the mistake. It is an odd number. The 2 times table are all even.

When counting in £2, we would say

£2, £4, £6, £8, £10

## Count Money – Notes & Coins

### Notes and Guidance

In this step, children will build on counting by bringing pounds and pence together.

Decimal notation is not used until KS2 therefore children will write the total using 'and' e.g. £5 and 30p rather than £5.30

Children will not count across £1. They will count the pounds and pence separately before putting them together.

### Mathematical Talk

How did you work out the missing amount?

What strategy did you use to count the money?

Explain what to do when the pounds and pence are mixed up.

### Varied Fluency

- 1 How much money is there altogether?



There is £\_\_\_ and \_\_\_p.

- 2 Complete the part whole model.



What's the same and what's different about the parts?

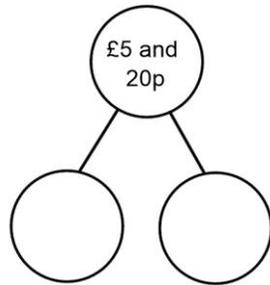
- 3 Complete the missing boxes

- £10 + £5 + 50p = £\_\_\_ and \_\_\_p
- £20 + £2 + 10p + 10p + 2p = £\_\_\_ and \_\_\_p
- £5 + £\_\_\_ + 50p + 20p + 20p + 1p = £10 and \_\_\_p

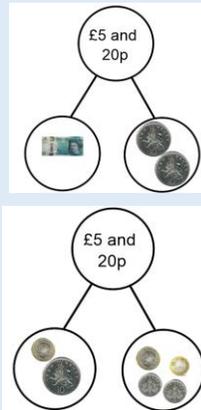
# Count Money – Notes & Coins

## Reasoning and Problem Solving

How many ways can you complete the part whole model by drawing money?



Example answers:



Mo has the following coins.



He thinks he has 51p.

Explain his mistake.

Mo thinks the 5p is a 50p coin. He has 6p.

Here are some coins.



Ali says, "There is 10p"

Joe says, "There is £10"

Are either of them correct?

Explain why.

No. Ali and Joe have taken the digits 2, 2, 5 and 1 and added them together.

The coins are a mix of pounds and pence so need to be counted separately.

## Select Money

### Notes and Guidance

Children will select coins from an amount given to them. They will use these practically, draw them and write the abstract amounts.

They will continue to use both pounds and pence to embed previous learning.

Children are continuing to work on recognising money by selecting the correct coins or notes from a wide range.

### Mathematical Talk

Is your answer the same as your partner?

Does it matter if you say pence or pounds first?  
Does this change the total?

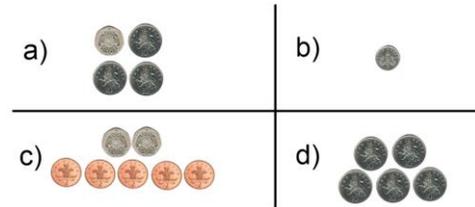
Can you show this amount in a different way?

### Varied Fluency

1 Circle 56p



2 Which does **not** show 50p?



3 Draw money on the purses to match the amount.



# Select Money

## Reasoning and Problem Solving

Farrah says,



I have 43p in silver coins.

Do you agree?

Explain why.

No because 3 pence can only be made with bronze coins.

Hanna and Ste both claim to have 90p.

Hanna has 3 coins and Ste has 4 coins.

Are they correct?

Which coins could they have?

Yes they can because:  
Hanna = 50p, 20p, 20p  
Ste = 50p, 20p, 10p, 10p

Use the money to fill the purses.

You can only use each coin or note once.

Cross them out once you have used them.



Circle the odd one out.

23p = 20p, 2p, 1p

25p = 20p, 5p

28p = 20p, 8p

Explain your answer.

Example answer:



28p = 20p, 8p is because if you are using coins there is not an 8p coin. Children may give other answers.

# Make the Same Amount

## Notes and Guidance

Children will explore the different ways of making the same amount.

As before, pence coins will not cross into the pounds.

Examples need to be modelled where pounds and pence are together but children need to continue to be encouraged to count the pounds and pence separately.

## Mathematical Talk

How is your way different to a partner?

Can you swap a coin/note for others and still make the same amount?

What is the smallest amount of coins you can use to make \_\_\_\_?

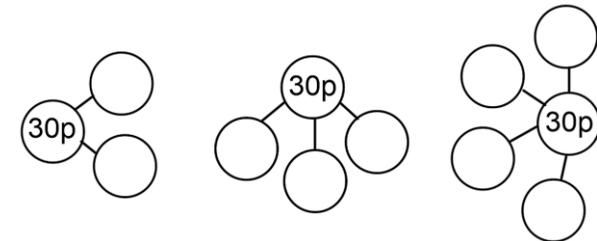
How many ways can you make \_\_\_\_?

## Varied Fluency

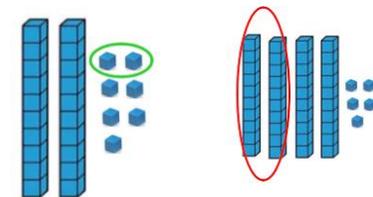
1 Match the amounts.



2 Complete the part whole models.



3 The base 10 represents money. What coin is represented by each circle?



# Make the Same Amount

## Reasoning and Problem Solving

Make 50p three ways using the coins below.

You can use the coins more than once.



Example answers:

20p, 20p, 10p

10p, 10p, 10p, 10p,  
5p, 5p

1p (50 times)

How many ways can you make 10p using only bronze coins?

Did you use a strategy?

Example answers:

2p, 2p, 2p, 2p, 2p

2p, 2p, 2p, 2p, 1p, 1p

# Compare Money

## Notes and Guidance

Children will compare two different values in either pounds or pence.

Examples may be used with both pounds and pence, but children will only focus on one of these and the other must be the same. E.g. £3 and 10p > £2 and 10p.

Children will recap comparing vocabulary such as greater/less than and also use the inequality symbols.

## Mathematical Talk

Do you notice anything about the amounts you have compared?

What's the same? What's different?

Can you add a value that will go in between the greatest and the least?

## Varied Fluency

1 Circle the box with the greatest amount.



2 Who has the least?



3 Use <, > or = to compare the amounts.

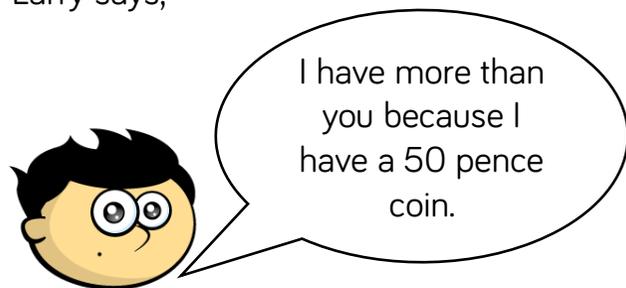


# Compare Money

## Reasoning and Problem Solving

Anna has three coins in her hand.

Larry says,



Is he correct?

Explain why.

It depends on coins Anna has.

Children explore and show e.g.

$20p, 20p, 20p > 50p$

$5p, 2p, 2p < 50p$

True or False?

5 copper coins can be worth more than 1 silver coin.

Four 5 pence coins are worth more than two 10 pence coins.



Do you agree? Explain why.

Only true when 5p is the silver coin.

Children should explore different true and false answers.

No, they are equal to each other. They both make 20p.

## Find the Total

### Notes and Guidance

Children will build on their knowledge of addition to add money including:

- 2 digit and 2 digit
- 2 digit and ones
- 2 digit and tens
- 3 single digits

Children will be encouraged to use different methods to add such as count on, partitioning and regrouping.

### Mathematical Talk

Was your method different to a friend?

What is the most efficient method? Why?

Can you write a worded question for a friend?

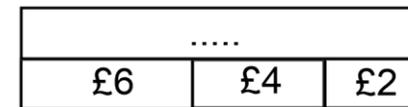
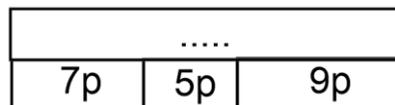
What was the greatest amount you found?

### Varied Fluency

1 Complete the table.

Pounds	Pence	Total
£4	25 pence	£ ___ and ___ p
£2		£2 and 40p
	65p	£20 and 65 pence
		£15 and 20p
	55 pence	

2 Find the total of the bar models.



3 Jackson buys bread and milk.



How much does he spend?

# Find the Total

## Reasoning and Problem Solving

Dan has these coins and notes.



He makes an amount greater than £20 but less than £30.

Draw the money he could have used.  
You can use each coin or note more than once.

How many different ways can you find?

Possible answers

£20, £20 and £5  
makes £25

£10, £5, £5, £2  
makes £22

Etc.

Here is a shopping list.

Items	Price
Rubber	20p
Ruler	18p
Pencil	32p
Crayon	27p
Pen	45p
Glue	36p

- I spend exactly 50p. Which two items did I buy?
- I bought two of the same item and it cost me 90p. What was the item?
- Choose two items. How many different amounts can you make?
- What is the closest you can get to 65p.

The ruler and the pencil as 18p and 32p makes 50p

Two pens as 45p and 45p makes 90p

Children to explore the totals that can be made by adding two items together.

The rubber and the pen would cost 65p as 20p and 45p make 65p

## Find the Difference

### Notes and Guidance

Children will expand their knowledge of addition and subtraction strategies by specifically finding the difference between two amounts.

Both counting on and counting back need to be modelled in this step. Children need to discuss which is the most efficient for different questions.

### Mathematical Talk

How many more?

What's the difference?

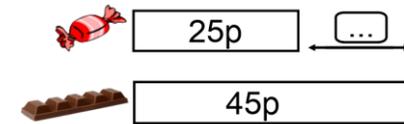
How much less?/How many fewer?

What method did you use to work this out?

Is this different to a partner? How?

### Varied Fluency

- 1 Work out the difference between a bag of sweets and a bar of chocolate.



- 2 How many pounds less does Ameer have?



- 3 Paul has £2 and 15p.  
Tony has £2 and 40p.  
How much more does Tony have than Paul?

# Find the Difference

## Reasoning and Problem Solving

What could Oscar have?

Work out the difference between the amounts.



How many different answers can you find?

Example answers:

Oscar could have more by:

- 50p, 20p, 1p
- 50p, 20p, 2p

Oscar could have the same by:

- 50p, 5p, 2p

Oscar could have less by:

- 5p, 5p, 1p
- 20p, 10p, 2p

Jake has 2p.

Jenny has 10p.

Both of them have a 2p coin.

What other coins could Jenny have?

$4 \times 2p$   
 $3 \times 2p$  and  $2 \times 1p$   
 $2 \times 2p$  and  $4 \times 1p$   
 $1 \times 2p$  and  $6 \times 1p$   
 $8 \times 1p$   
 $5p$  and  $2p$  and  $1p$   
 $5p$  and  $3 \times 1p$

## Find Change

### Notes and Guidance

Children continue to build on their subtraction skills by finding the change. They need to identify the amounts from coins given, write the calculations and choose efficient methods.

In this step, children will be introduced to converting £1 to 100p to be able to subtract from £1. This links to their number bond knowledge to 100.

### Mathematical Talk

Can you write a calculation for this?

Why is it important to use the £ or p symbol?

What strategy did you use to find the change?  
Did you use concrete objects to help?

When would you use this skill?

### Varied Fluency

- 1 Lola has



She spends 53p.

What money will she have left?

- 2 Write the calculation to find the change.



$$\square \circ \square = \square$$

- 3 Benji spends 65p in the shop.  
He pays with a £1 coin.

How much change will he receive?

# Find Change

## Reasoning and Problem Solving

I have 20p.

My change is more than 5p but less than 10p.

What could I have bought?



Example answers:

Chocolate bar or a sweet and banana

I paid for my shopping with one coin.

Here is my change.



What could I have paid with and how much would the item have been?

Could have paid with a 20p coin and it would have cost 3p.

Could have paid with a 50p coin and it would have cost 33p.

Could have paid with a £1 coin and it would have cost 83p.

## Two-step Problems

### Notes and Guidance

Children are drawing together all of the skills they have used in this unit and consolidating their previous addition and subtraction learning.

Scaffolding may need to be given to children to see the different steps.

Bar modelling is really useful to see the parts and wholes and supports children in choosing the correct calculation.

### Mathematical Talk

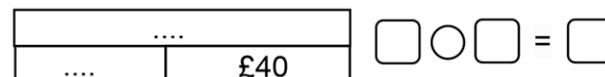
Here is a one-step problem. Can you think of a second step?

Can you write your own two step word problem?

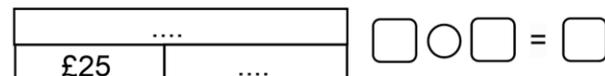
Did you use a concrete or pictorial representation to help you?

## Varied Fluency

- 1 Rachel has £33 in her money bank, and gets £40 more. Fill in the bar model to show her total.



She then buys a top for £25. Complete the bar model to show how much she has left.



- 2 Bilal has these coins.



- 3 He spends 54p, how much does he have left?

A scarf is £12 and a bag is £25.

Emily buys one of each and pays with a £50 note.

How much change will she receive?

# Two-step Problems

## Reasoning and Problem Solving

Ghost Train: 90p

Emily finds a 20p coin.

She puts it with her other three 20p coins.

Does Emily have enough to ride the ghost train?

Explain why.

$$20p + 20p + 20p + 20p = 80p$$

No because she only has 80p.

She would need 10p more.

$$90p > 80p$$

Alex has 90 pence.  
He bought a rubber for 30 pence and wants to buy a pencil.



The shopkeeper will not sell him the pencil.  
Explain why.

$$90p - 30p = 60p$$

$$70p > 60p$$

He does not have enough money to buy the pencil.