Mathletics

Series C Student

Time and Money

My name

Copyright © 2009 3P Learning. All rights reserved.

First edition printed 2009 in Australia.

A catalogue record for this book is available from 3P Learning Ltd.

ISBN 978-1-921860-28-7

Ownership of content The materials in this resource, including without limitation all information, text, graphics, advertisements, names, logos and trade marks (Content) are protected by copyright, trade mark and other intellectual property laws unless expressly indicated otherwise.

You must not modify, copy, reproduce, republish or distribute this Content in any way except as expressly provided for in these General Conditions or with our express prior written consent.

Copyright Copyright in this resource is owned or licensed by us. Other than for the purposes of, and subject to the conditions prescribed under, the Copyright Act 1968 (Cth) and similar legislation which applies in your location, and except as expressly authorised by these General Conditions, you may not in any form or by any means: adapt, reproduce, store, distribute, print, display, perform, publish or create derivative works from any part of this resource; or commercialise any information, products or services obtained from any part of this resource.

Where copyright legislation in a location includes a remunerated scheme to permit educational institutions to copy or print any part of the resource, we will claim for remuneration under that scheme where worksheets are printed or photocopied by teachers for use by students, and where teachers direct students to print or photocopy worksheets for use by students at school. A worksheet is a page of learning, designed for a student to write on using an ink pen or pencil. This may lead to an increase in the fees for educational institutions to participate in the relevant scheme.

Published 3P Learning Ltd

For more copies of this book, contact us at: www.3plearning.com/contact

Designed 3P Learning Ltd

Although every precaution has been taken in the preparation of this book, the publisher and authors assume no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of this information contained herein.

Series C – Time and Money

Contents

Topic 1 – Time (pp. 1–17)

Date completed

- months of the year ____ / /
- seasons ____ / /
- ordering events ____ / /
- duration and language of time ____ / /
- hours, minutes and seconds ____ / /
- quarter past ____ / /
- quarter to ____ / /
- quarter to and past ____ / /
- to the nearest 5 minutes ____ / /
- errors ____ / /
- a day ____ / /

Topic 2 – Money (pp. 18–33)

- coins and notes ____ / /
- writing and ordering amounts ____ / /
- skip counting ____ / /
- adding coins ____ / /
- amounts to £2 ____ / /
- amounts to £5 ____ / /
- change ____ / /

Series Author:

Rachel Flenley

Copyright © 3P Learning

Time – months of the year

1 **a** Fill in the missing letters in these months of the year.

	J __ n __		A u __ __ s t
	__ __ p t __ m b __ __		J __ n __ a r __
	__ __ l y		A p __ __ __
	M a r __ __		N __ v e m __ __ __
	O __ t __ b __ __		M __ __
	__ e c __ __ b __ r		F e __ r u __ __ __

b Number them 1 to 12, starting with January.

2 Guess the mystery months.

a I come after April but before June. I am ____

b I have 7 letters in me.
I have an 'o' and a 'b'. I am ____

c I am the 2nd last month of the year. I am ____

January February March April May June
July August September October November December

Copyright © 3P Learning

Time – months of the year

1 What special things happen in your world over a year?

a Ask your friends and family for ideas and draw or write them in the matching boxes.

October	July	March
April	September	November
January 1st New Year's Day	August	May
December	February	June

b Did you notice that the months are in the wrong order? Cut the boxes out and reorder them. Stick them onto a new page.

Copyright © 3P Learning

Time – seasons

Many countries experience four seasons in a year: winter, spring, summer and autumn. In the UK, we usually think of each season lasting three months and consisting of these months:

winter = December, January, February spring = March, April, May

summer = June, July, August autumn = September, October, November

You will need: 3 partners scissors the next page

What to do:

Cut out the four seasons. Without looking, choose a season each. Now cut out the months of the year (on page 4) and place them face down.

Take turns turning over a month card. If it matches your season, keep it. If it doesn't, put it back. The winner is the 1st player to collect all three matching months.

winter	spring
summer	autumn

Copyright © 3P Learning

Time – seasons

January	February
March	April
May	June
July	August
September	October
November	December

Copyright © 3P Learning

Time – ordering events

You will need: a black pen or pencil

copy

What to do:

Think of 8 things you do over a school day. Write or draw them in the boxes.

before school		
before lunch		
after lunch		
after school		

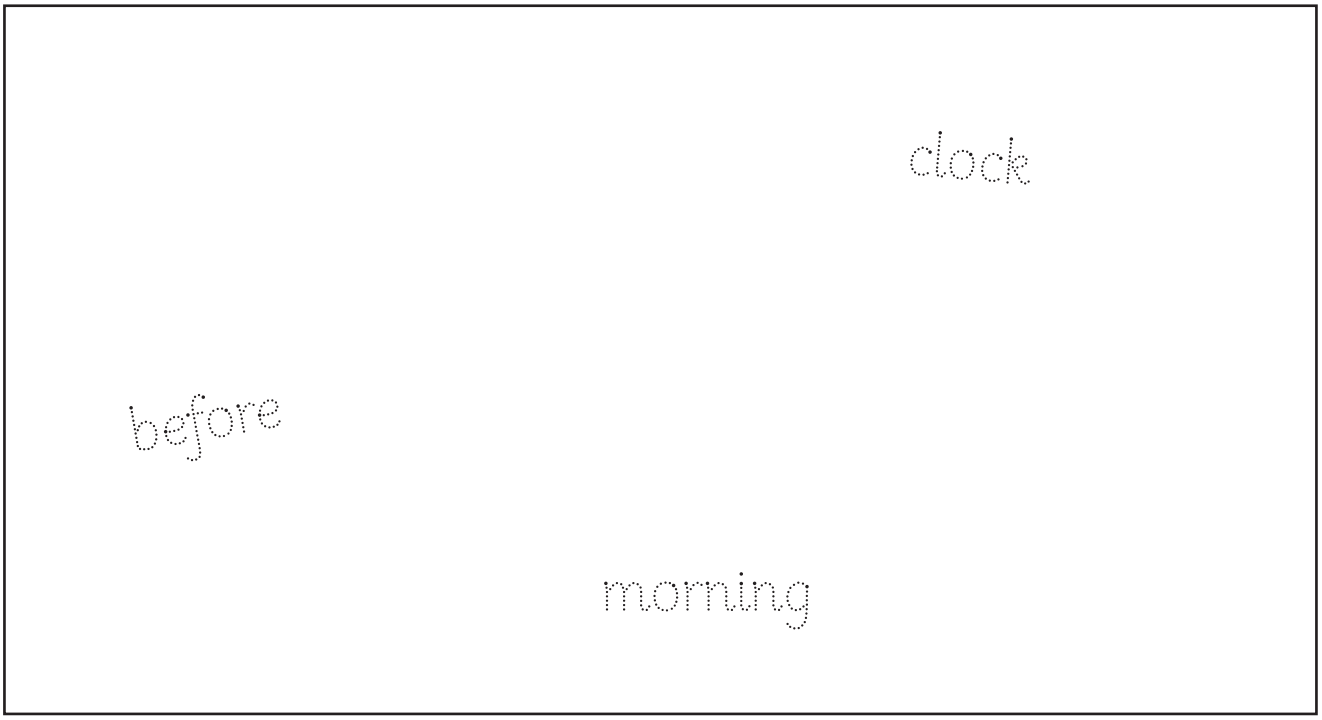
What to do next:

Cut out the boxes and ask a partner if they can reorder them for you. You can give clues to help.

Copyright © 3P Learning

Time – duration and language of time

1 What are some words we use when we are thinking or talking about time? Add them below.



2 Write or draw some things that you usually do ...

slowly	quickly
at the same time each day	at different times over the day

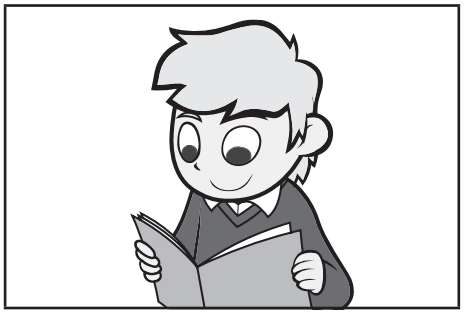
Copyright © 3P Learning

Time – duration and language of time

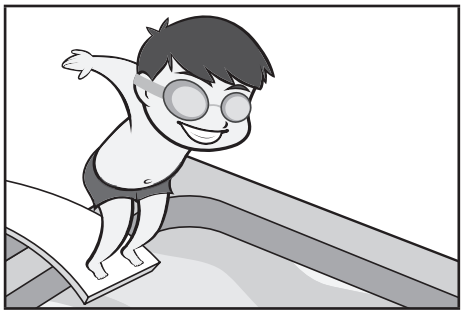
1 Think about roughly how long it takes you to do the actions on the right side of the page. Then draw or write an action on the left side of the page to match the statement.

a takes more time than

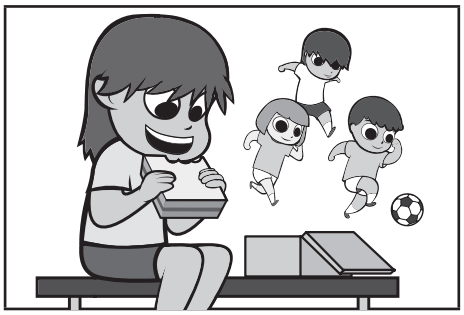
b takes less time than



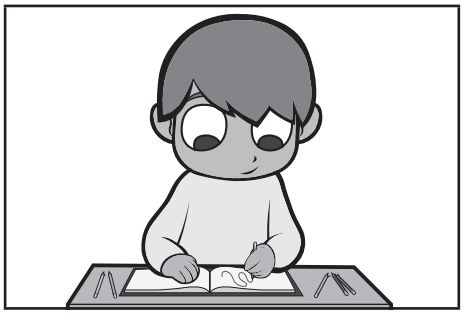
c takes more time than



d takes less time than



e takes about the same time as



Copyright © 3P Learning

Time – hours, minutes and seconds

How long is a minute? What does it 'feel' like? One way to tell is to find out what we can do during that time.

You will need: a partner a stopwatch

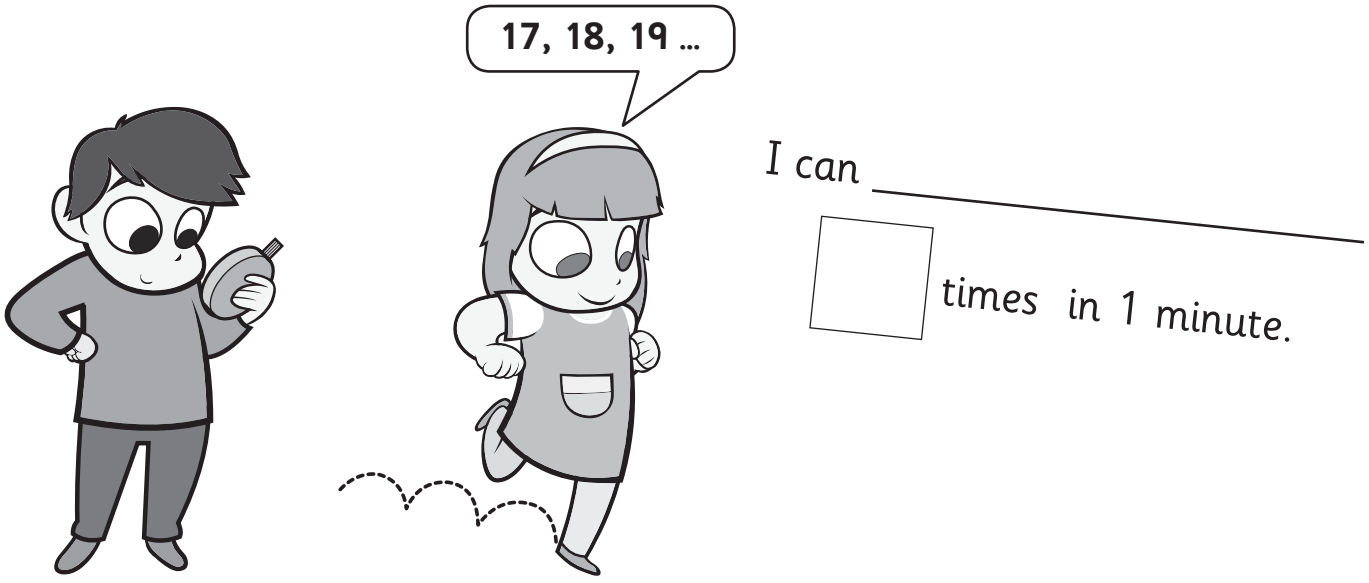
What to do:

Your project is to work out how many times you can do the following actions in a minute. Ask your teacher to show you how to work and read your stopwatch to 1 minute. Take turns timing each other. It can be tricky timing and counting, so it works best if the person doing the action counts the numbers as well. You could also ask a third person to count.

I can tie my shoelaces ☐ times in 1 minute.

I can do ☐ star jumps in 1 minute.

I can run around the playground ☐ times in 1 minute.



I can _____

☐ times in 1 minute.

Copyright © 3P Learning

Time – hours, minutes and seconds

1 What are some things you might spend an hour doing? Record them.

2 Put a circle round the above things you would ***enjoy*** doing for an hour. Does the hour feel like it goes quickly or slowly when you are enjoying the activity?

3 For this activity you will need a stopwatch and a partner. Spend **1 minute** playing a computer game such as Live Mathletics.
Now spend **1 minute** sitting still in ABSOLUTE silence.
Do they feel the same? Why or why not?

Copyright © 3P Learning

Time – hours, minutes and seconds

How long is a second? Say, '1 elephant' at your normal talking speed. That was a second!

1 What are some things that take a second to do? Use '1 elephant' as your timer to find out. Record them.

Our time system is based on 60. There are 60 seconds in a minute and 60 minutes in an hour.

2 How many star jumps could you do in a minute? Time yourself and see.

I can do ☐ star jumps in 1 minute.

3 Now see how many star jumps you can do in 60 seconds. Get a partner to time you with a stopwatch or count in 'elephants' to 60.

I can do ☐ star jumps in 60 seconds.

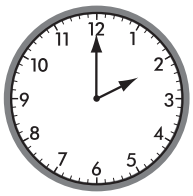
4 Are your answers the same? Why or why not, do you think?

5 Let's say you are super fit and can keep going at the same pace. What sum could you do on the calculator to find out how many star jumps you could do in an hour? Write it and find the answer.

Copyright © 3P Learning

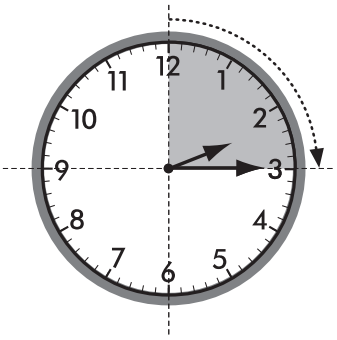
Time – quarter past

The time shown on this clock is **2 o'clock**.



The minute (big) hand is on the 12.

The hour (little) hand is on the 2.



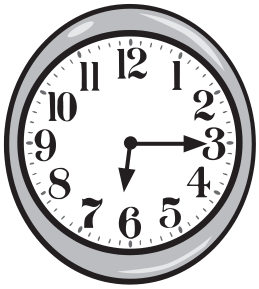
The time shown on this clock is **quarter past 2**.

The minute hand has moved a quarter of the way to the next hour. It is pointing to the 3.

The hour hand has also moved a quarter of the way to the next hour.

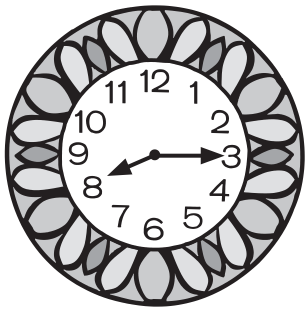
1 What is the time?

a



quarter past ___

b



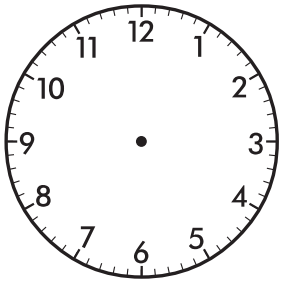
quarter past ___

c

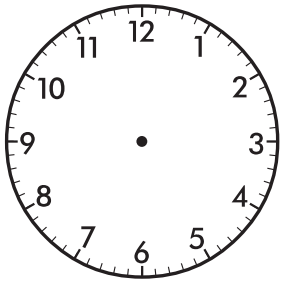
quarter past ___

2 Draw the missing hands on the clocks to finish the times.

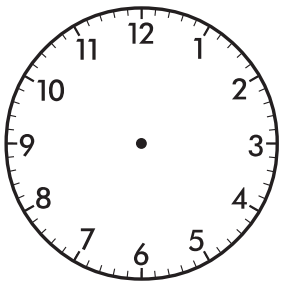
a quarter past 7



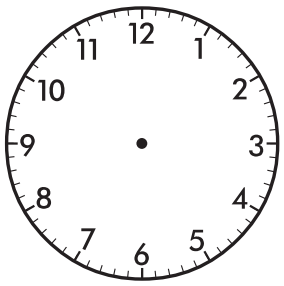
b quarter past 12



c quarter past 11

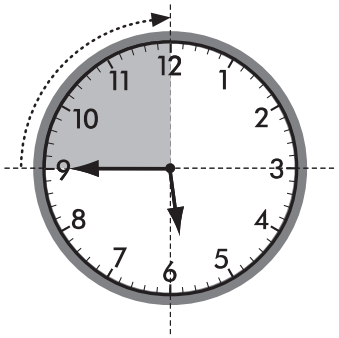


d quarter past 3



Copyright © 3P Learning

Time – quarter to



The time shown on this clock is a quarter to 6.

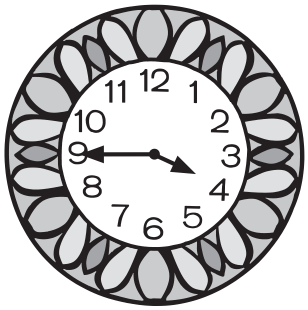
This means that 45 minutes have passed since 5 o'clock and that it is 15 minutes until 6 o'clock.

1 What is the time?

a

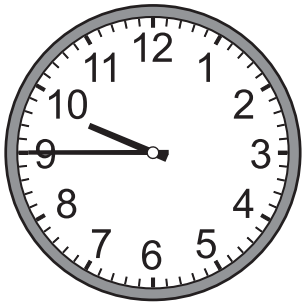
quarter to ___

b



quarter to ___

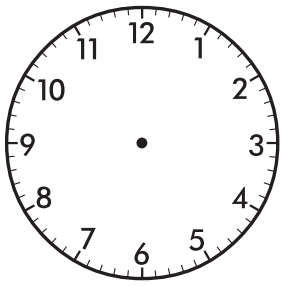
c



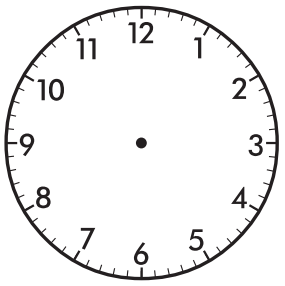
quarter to ___

2 Draw the missing hands on the clocks to finish the times.

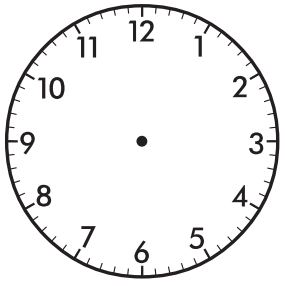
a quarter to 5



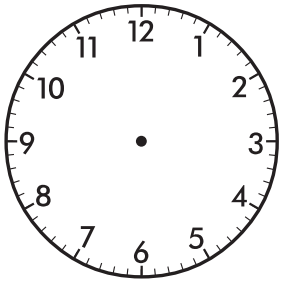
b quarter to 7



c quarter to 11



d quarter to 3



Copyright © 3P Learning

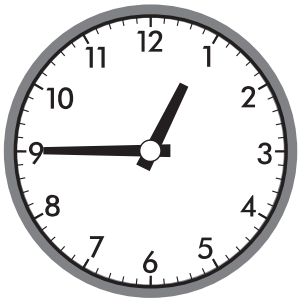
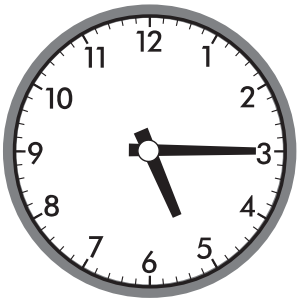
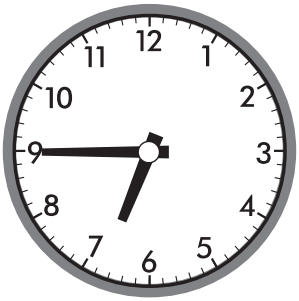
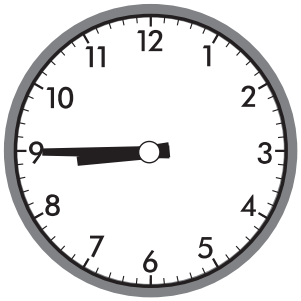
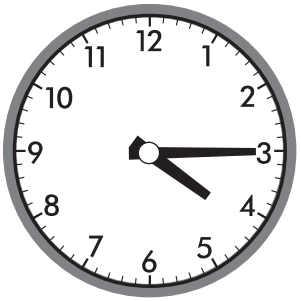
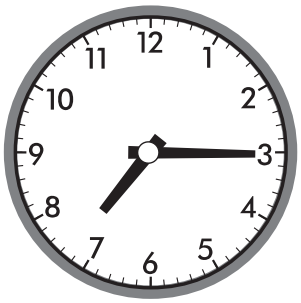
Time – quarter to and past

You will need: a partner, scissors, a clock with movable hands

copy

What to do:

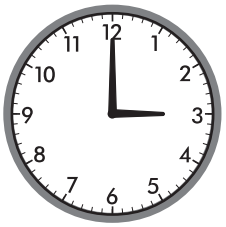
Cut out the time cards and place them face down. Choose who will go first. Turn over two cards. If they match, and you can make the time on the clock, you keep them. Play until all the cards are gone.

quarter past 4		quarter past 7	
	quarter to 1		
quarter to 9		quarter past 5	quarter to 7

Copyright © 3P Learning

Time – to the nearest 5 minutes

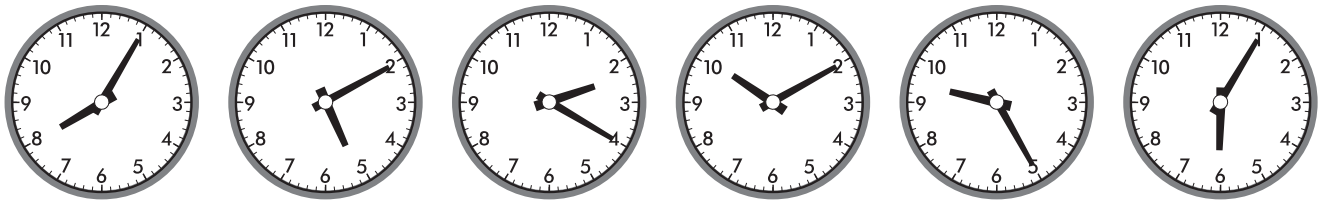
Analogue clocks have two scales. The numbers mark the scale of the hour hand. When the hour hand moves between one number and the next an hour has passed.



The lines around the outside of the clock face mark the scale of the minute hand, with each line representing one minute. So, when the minute hand moves between one number and the next it marks the passing of five minutes. This clock show '5 minutes past 3' or '5 past 3'.

If the minute hand moves on another five minutes it will now be pointing to the 2, and the time will be '10 past 3'.

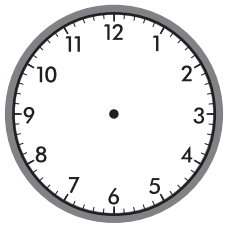
1 Match the clock faces to the times.



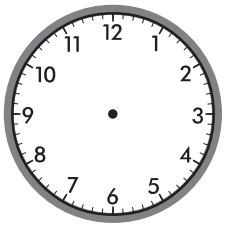
25 past 9	10 past 5	10 past 10	5 past 6	20 past 2	5 past 8

2 Draw the hands on the clock faces to show the times written below.

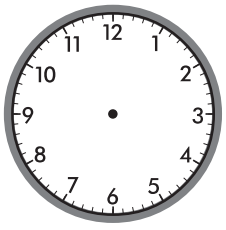
a 5 past 4



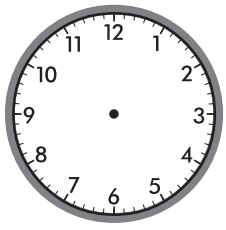
b 25 past 8



c 10 past 11



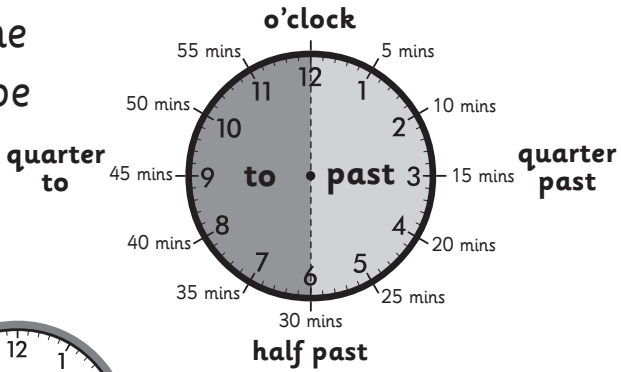
d 20 past 1

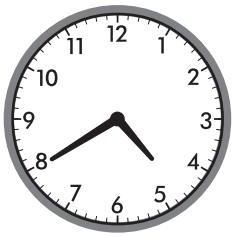


Copyright © 3P Learning

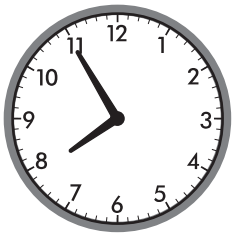
Time – to the nearest 5 minutes

When the minute hand has passed the '6', the 'half past' position, we describe the time by saying how many minutes there are 'to' the next hour.



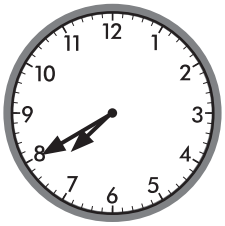


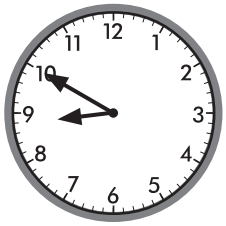
So this clock shows '20 to 5'.

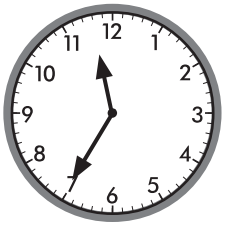


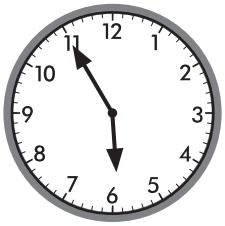
This one shows '5 to 8'.

1 Write the times shown on the clock faces in the boxes below:

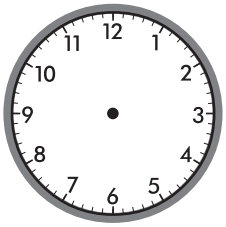
a 

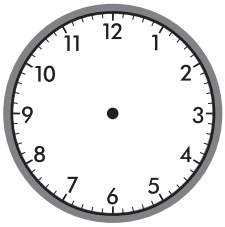
b 

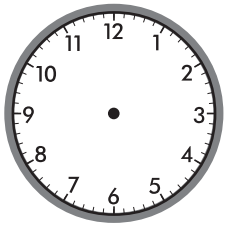
c 

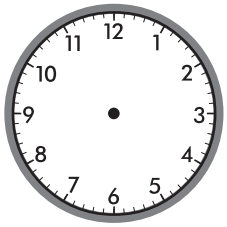
d 

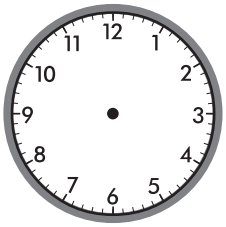
2 Draw the hands on the clock faces to show the times written below:

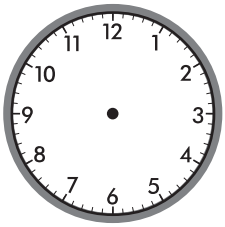
a 
5 to 1

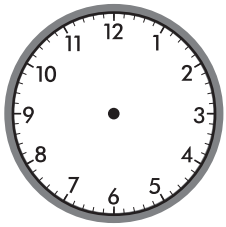
b 
25 to 3

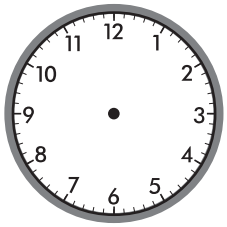
c 
20 to 9

d 
10 to 7

e 
5 past 6

f 
quarter past 10

g 
20 to 12

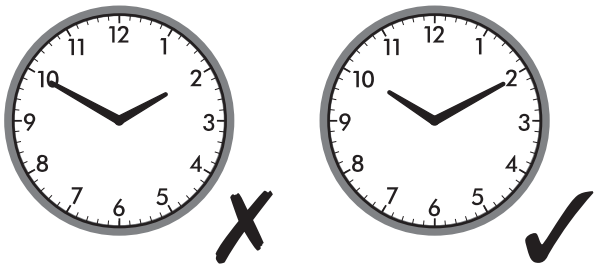
h 
quarter to 9

Copyright © 3P Learning

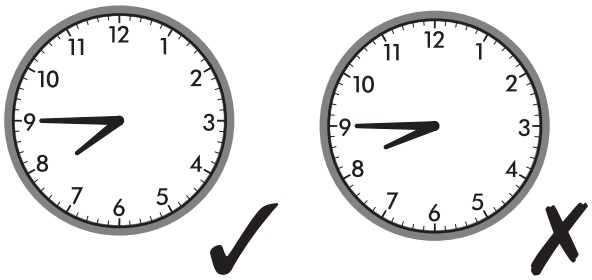
Time – errors

When telling the time on analogue clocks or drawing the hands on clock faces, it is easy to make mistakes.

Which of these clocks is showing 10 past 10?



It is easy to confuse the hour and the minute hand. Always think carefully about which hand is which, and draw the hands so that one is clearly shorter than the other.



Which of these clocks is showing quarter to 8? The hour hand of the second clock is in the wrong position – it is in the position for quarter past 8, not quarter to 8.

Always make sure you make the position of the hour hand as accurate as possible.

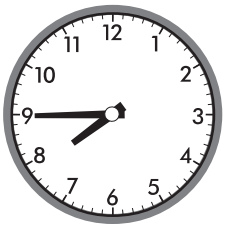
1 Aaliyah drew the hands on the clocks below, but she thinks she may have made some mistakes. Can you mark them for her? Put a tick in the box for each correct question and a cross for mistakes.

a ☐

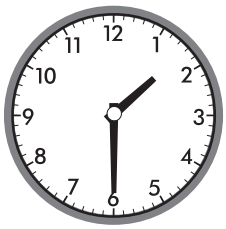
10 to 6

b ☐

25 past 3

c  ☐

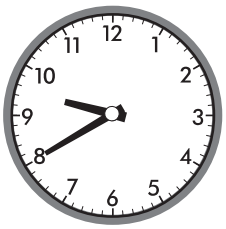
quarter to 8

d  ☐

half past 1

e ☐

quarter past 7

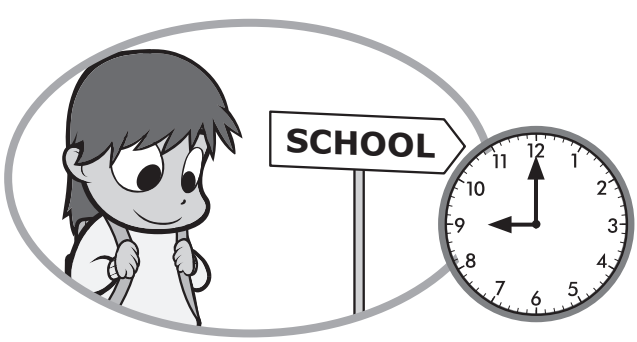
f  ☐

20 to 10

Copyright © 3P Learning

Time – a day

There are 24 hours in a day. There are 12 hours on a clock so a day is made up of '2 clocks'.



You are probably in school at 9 o'clock in the morning.

You are probably in bed at 9 o'clock at night.

1 Write or draw what you might be doing at:

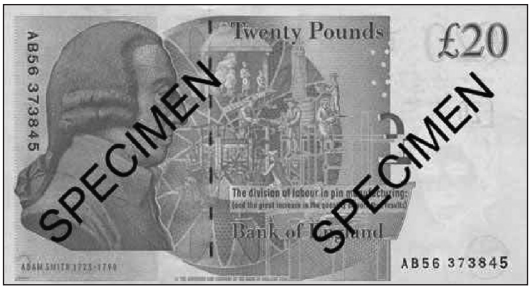
in the morning	in the afternoon
in the morning	in the evening

2 Look at the digital clocks around your house. How do they show the difference between 8 o'clock in the morning and 8 o'clock in the evening?

Copyright © 3P Learning

Money – coins and notes

In the UK our money is pounds (£) and pence (p). We have eight coins and four notes. The coins have values of 1p, 2p, 5p, 10p, 20p, 50p, £1 and £2. The values of the notes are £5, £10, £20 and £50.



1 Draw lines to match the coins to their values.

1p 2p 5p 10p 20p 50p £1 £2

Copyright © 3P Learning

Money – writing and ordering amounts

How do we write amounts with pounds and pence?

We keep the pound sign. **£2.50p** We remove the p sign.

We put a decimal point between the pounds and pence.

If the amount has no pence we can write it as:

£2 or **£2.00**

If the amount has no pounds we can write it as:

50p or **£0.50**

1 Write the amounts on the price tags.

a one pound

b 80 pence

c 12 pounds and 50 pence

d 35 pence

e 27 pounds

f 15 pence

2 Put these amounts in order of value from least to most.

a £5 5p 50p

b £2.50 £25.00 £0.25

c £80.00 £0.80 £8.00

d £11.95 £12.95 £10.95

Copyright © 3P Learning

Money – skip counting

Knowing how to count in 5s, 2s and 10s is useful when we are working with money. And if we know how to count in 2s and 5s, we can count in 20s and 50s.

1 Fill in the missing amounts on the number lines.

a

0p	2p			8p	10p		14p		18p	

b

0p	20p	40p			£1.00	£1.20	£ .	£ .	£ .	£2.00

c

0p	5p	10p				30p				50p

d

0p	£0.50	£1.00	£ .	£ .	£2.50	£ .	£ .	£ .	£ .	£5.00

2 How much money?

a

b

c

d

Copyright © 3P Learning

Money – skip counting

You will need: 1 to 3 partners, scissors, a die, the next page

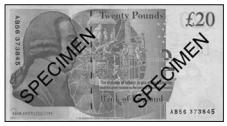
What to do:

Each player cuts out the notes on page 22. You'll also each need the score card below. Combine all the notes into 1 'bank', keeping the values separate (keep all the £10 notes together etc).

Take turns rolling the die. First you will roll for £50 notes. Take the number of notes the die shows and record how much money you make.

Then roll for £20 notes, £10 notes and finally £5 notes. Record the amounts as you go.

How much money does each player have at the end of the game? You can use a calculator to help add the amounts. Who is the richest?

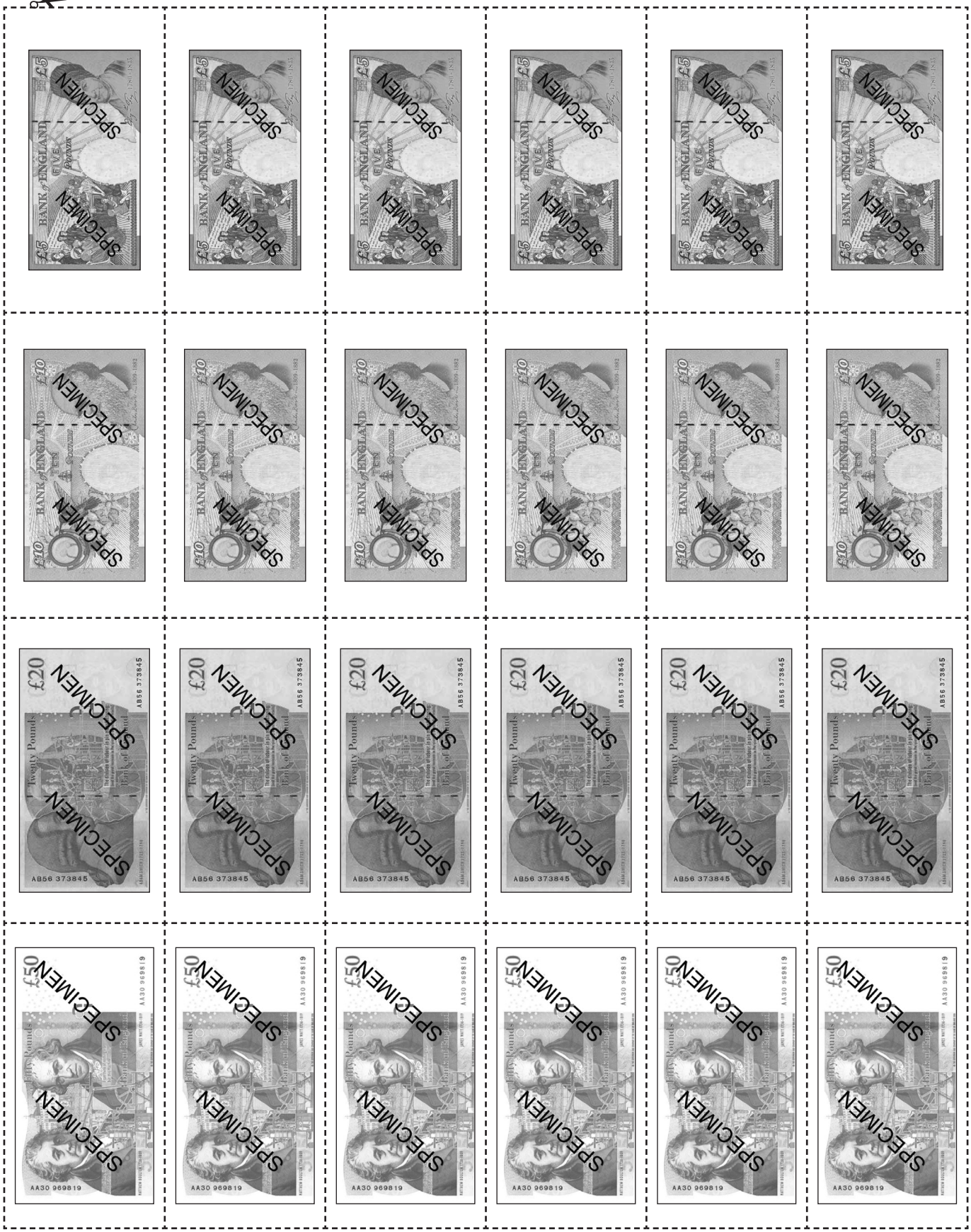
			

Altogether I have:

What to do next:

How much money do you have as a group?

Money – skip counting



Copyright © 3P Learning

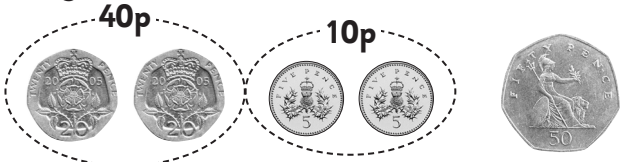
Money – adding coins

Another useful skill to have is recognising coins that add to make easy amounts. Look at these coins:

20p + 5p + 20p + 50p + 5p = £1

We could add them like this but there are easier ways.

We could rearrange the coins like this. Now we have:



50p + 50p = £1

Or as we know that 25 + 25 = 50 we could add the coins like this:

25p + 25p + 50p = £1

1 Warm up by adding these coin combinations.

a

5p + 5p = ____

10p + 10p = ____

20p + 20p = ____

50p + 50p = ____

£1 + £1 = ____

£2 + £2 = ____

25p + 25p = ____

£2.50 + £2.50 = ____

b

5p + 10p = 15p

5p + 20p = ____

5p + 30p = ____

5p + 40p = ____

5p + 50p = ____

10p + 20p = ____

10p + 30p = ____

10p + 40p = ____

c

3p + 3p = ____

30p + 30p = ____

4p + 4p = ____

40p + 40p = ____

2p + 3p = ____

20p + 30p = ____

2p + 4p = ____

20p + 40p = ____

Copyright © 3P Learning

Money – adding coins

1 Find a way to add these groups of coins. Write the total in each box.

a

b

c

d

Remember you can add them in any order. It may help to use plastic coins so you can rearrange them as you need.

e

f

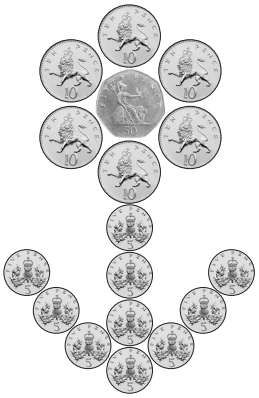
Copyright © 3P Learning

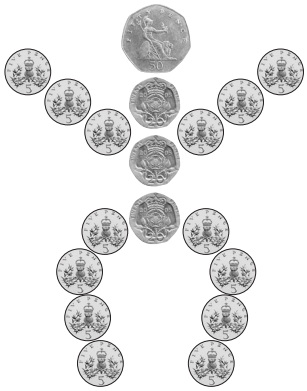
Money – adding coins

You will need: plastic coins

What to do:

Use coins to make a picture such as the ideas on the right. Record your picture in the box and then add up how much it costs.





My drawing costs:

What to do next:

Compare your picture with those of your classmates. Whose picture was most expensive? Whose was cheapest?

Copyright © 3P Learning

Money – amounts to £2

You will need: a partner plastic coins

What to do:

We can make amounts in many different ways. Work with your partner to find 2 ways to make these amounts. Record them.

75p

£1.50

£1.25

Copyright © 3P Learning

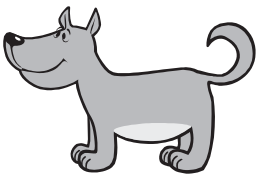
Money – amounts to £2

You will need: a partner plastic coins

What to do:

By making a donation of **£1**, you can send these dogs to good homes. Work with your partner to:

a Rescue this dog by using 1 coin to make £1. Show how you did it.



b

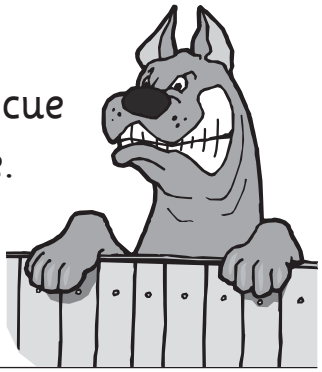
Rescue this dog by using 2 coins to make £1. Show how you did it.

c Rescue this dog by using 4 coins to make £1. Show how you did it.

d Rescue this dog by using 5 coins to make £1. Show how you did it.

What to do next:

What is the greatest number of coins you can use to rescue this dog? (That's if you dare.) He also costs £1 to rescue. Show how you did it.

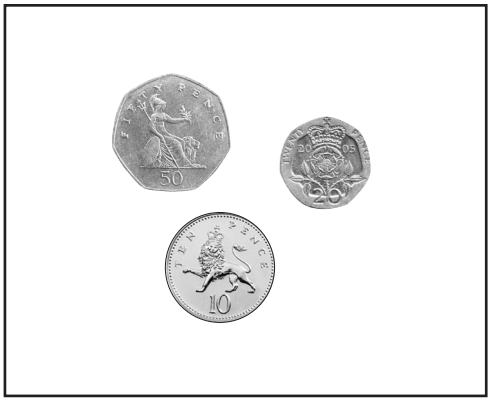


Copyright © 3P Learning

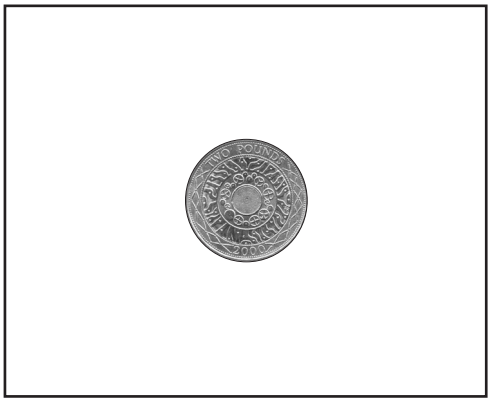
Money – amounts to £2

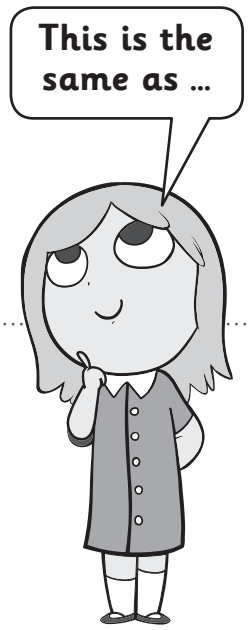
1 Mara thinks the amounts on the left are the same as the amounts on the right. Tick the ones she gets right. Fix any she gets wrong by drawing more coins or crossing out extra coins to make them the same.

a

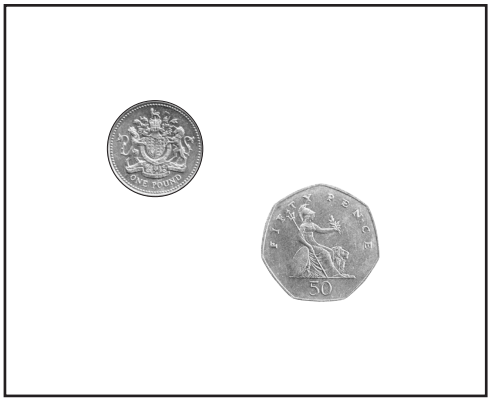


b





c

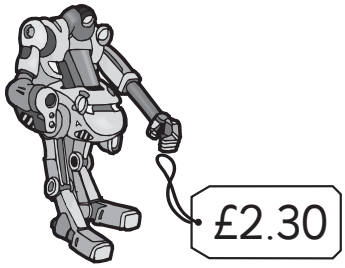


d

Copyright © 3P Learning

Money – amounts to £5

1 You are at your school fair. Show which coins you could use to buy:

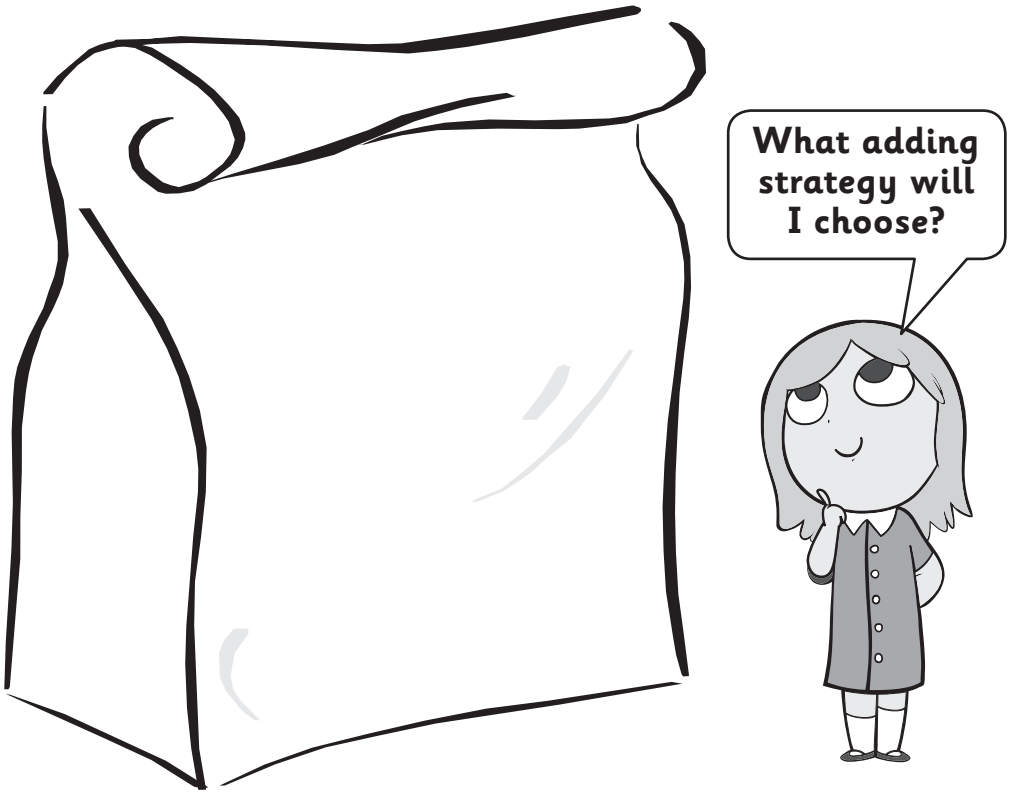
At the jumble sale		
		
At the rides		
At the food stalls		

Copyright © 3P Learning

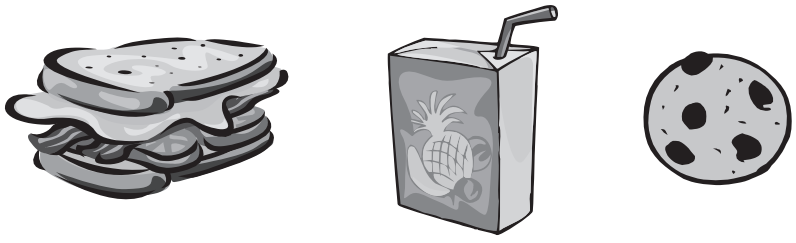
Money – amounts to £5

Price list		
Salad sandwich .. £3.00	Sausage roll... £2.20	Juice £1.50
Sushi roll..... £2.00	Cookie £1.00	Water... £1.50
Ham and cheese toastie £1.50	Fruit £0.50	

1 Make yourself a lunch order up to the value of £5. Write it on the lunch bag.



2 Your friend also has £5 and wants to order:



Can she do it? Why or why not?

Copyright © 3P Learning

Money – change

One way of working out change is to imagine adding coins until you get to the amount you paid. It's a way of counting on.

We buy an for 80p and pay with a . How much change should we receive?

We can make 80p like this . If we add we have .

So is our change.

1 Draw the coins you would need to add to get to the amount you paid. This is your change.

You pay with	Cost	Coins to add	Change
			50p

Copyright © 3P Learning

Money – change

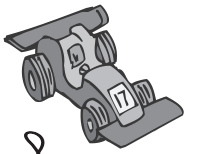
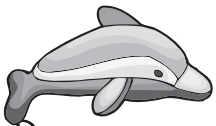
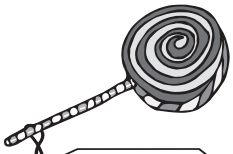
A book costs £2.00 (£2). We pay with a £5.00 (£5) note. How much change should we receive? One good strategy is to count on using a number line.

We start at £2.00.

We make 3 jumps of £1.00.

We should receive £3.00 change.

1 How much change?

	Item and cost	You pay with	Number line	Change
a	 £4.00		0 £1.00 £2.00 £3.00 £4.00 £5.00	
b	£2.00		0 £1.00 £2.00 £3.00 £4.00 £5.00	
c	 £3.00		0 £1.00 £2.00 £3.00 £4.00 £5.00	
d	£5.00		0 £1.00 £2.00 £3.00 £4.00 £5.00	
e	 £1.00		0 £1.00 £2.00 £3.00 £4.00 £5.00	

Copyright © 3P Learning

Money – change

A cake costs **£2.60**. We pay with a **£5.00** note. How much change should we receive? We can count on to find out.

First we count the pence on to the nearest pound. We start at 60p and make 4 jumps of 10p to 100p. We have jumped **40p** and we are now at £3.00.

Then we count the pounds on to £5.00.

We make 2 jumps.

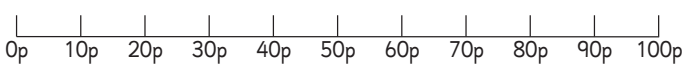
40p + £2.00 = £2.40

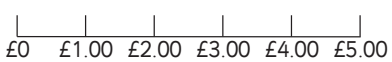
We should receive £2.40 change.

1 Use the number lines in the help strip to work out the change.

	Item and cost	You pay with	Working out	Change
a	£3.60		____p + £____	
b	£1.80		____p + £____	
c	£2.30		____p + £____	

Help





Copyright © 3P Learning

Time

Name _____

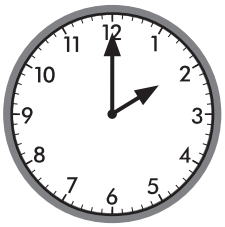
1 What could you do that would take about:

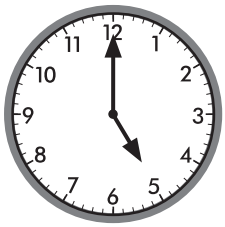
a a second?

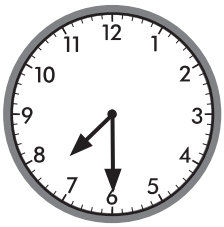
b a minute?

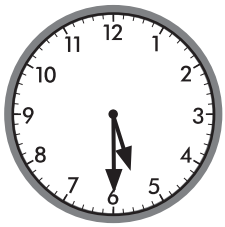
c an hour?

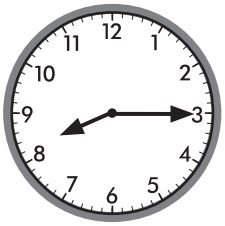
2 Write the times shown on the clock faces in words in the boxes below:

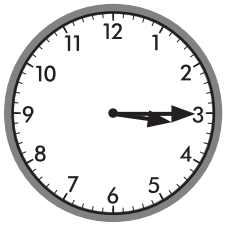
a 

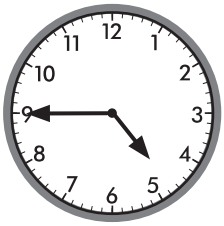
b 

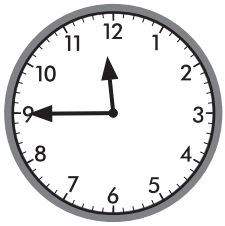
c 

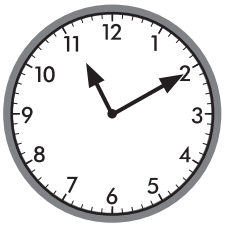
d 

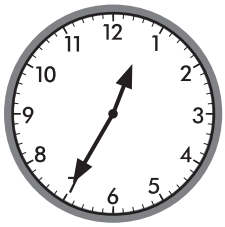
e 

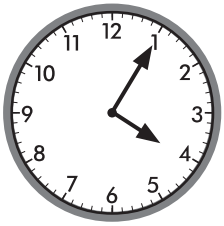
f 

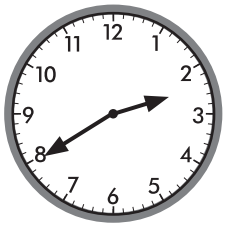
g 

h 

i 

j 

k 

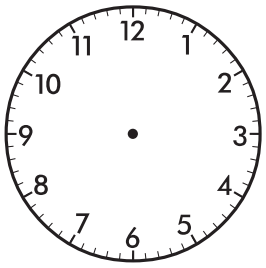
l 

Copyright © 3P Learning Mathletics

Name _____

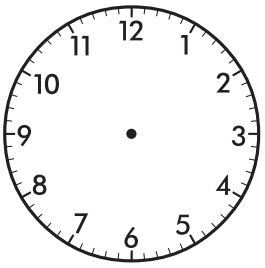
3 Draw the missing hands on the clocks to finish the times.

a



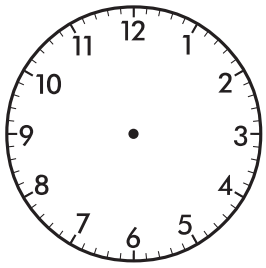
half past 9

b



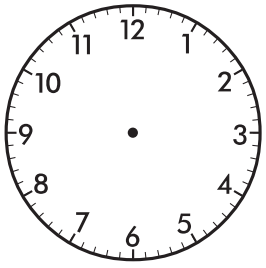
half past 3

c



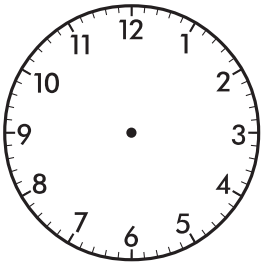
6 o'clock

d



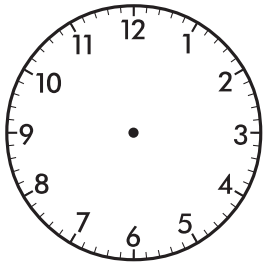
quarter past 3

e



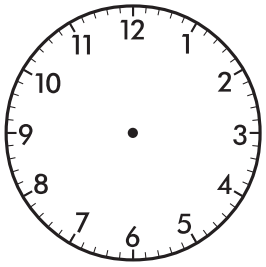
quarter past 7

f



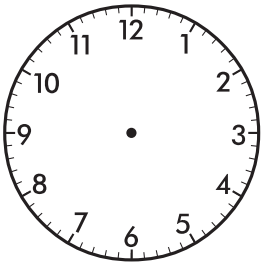
quarter to 10

g



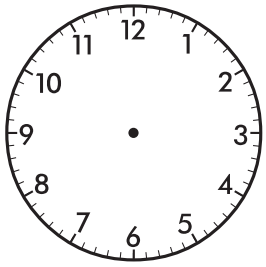
5 past 7

h



20 to 11

i



25 past 1

Skills and understandings	Not yet	Kind of	Got it
• Orders months of the year			
• Locates days and dates on a calendar			
• Matches months with seasons			
• Matches appropriate activities with units of time			
• Reads and makes analogue o'clock times			
• Reads and makes analogue half past times			
• Reads and makes analogue quarter past and quarter to times			
• Reads and makes analogue times to the nearest 5 minutes			

Mathletics Copyright © 3P Learning

Time

Name _____

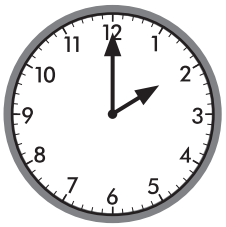
1 What could you do that would take about:

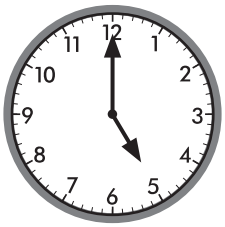
a a second?

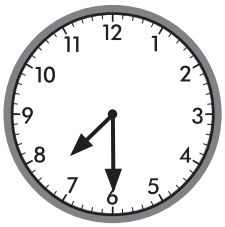
b a minute?

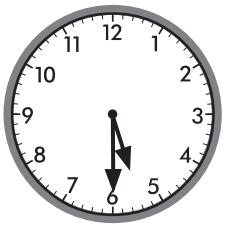
c an hour?

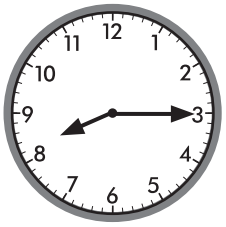
2 Write the times shown on the clock faces in words in the boxes below:

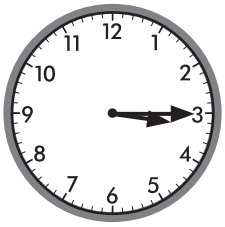
a 

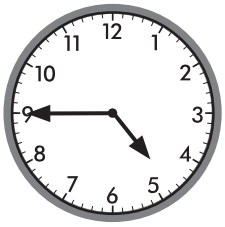
b 

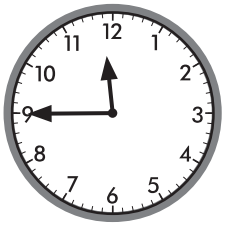
c 

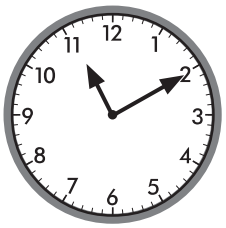
d 

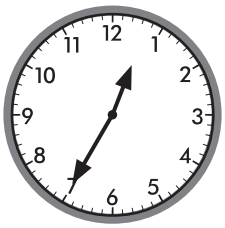
e 

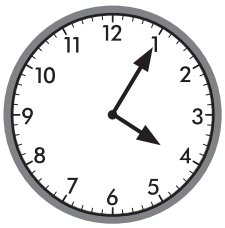
f 

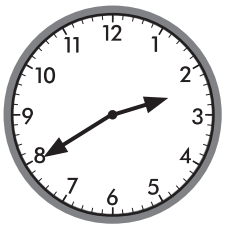
g 

h 

i 

j 

k 

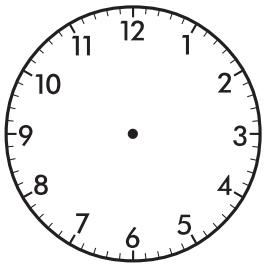
l 

Copyright © 3P Learning Mathletics

Name _____

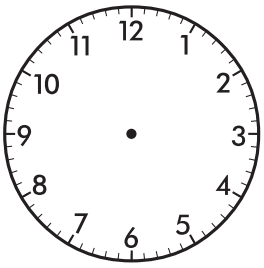
3 Draw the missing hands on the clocks to finish the times.

a



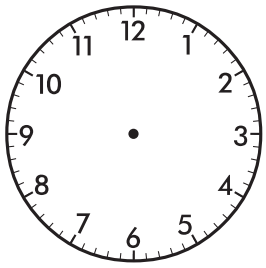
half past 9

b



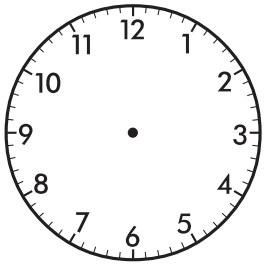
half past 3

c



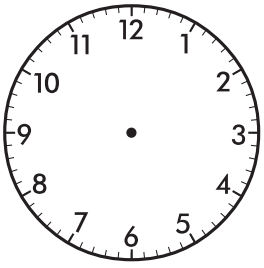
6 o'clock

d



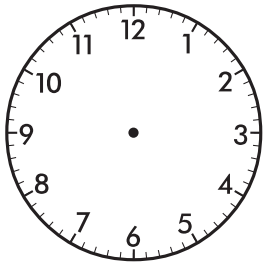
quarter past 3

e



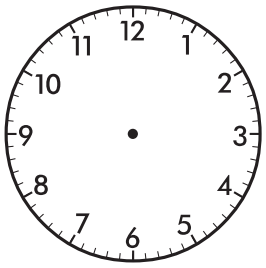
quarter past 7

f



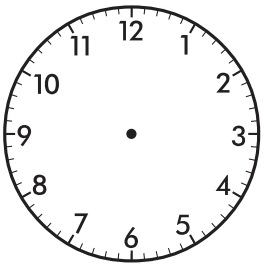
quarter to 10

g



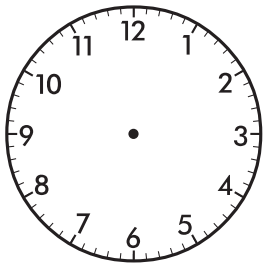
5 past 7

h



20 to 11

i



25 past 1

Skills and understandings	Not yet	Kind of	Got it
• Orders months of the year			
• Locates days and dates on a calendar			
• Matches months with seasons			
• Matches appropriate activities with units of time			
• Reads and makes analogue o'clock times			
• Reads and makes analogue half past times			
• Reads and makes analogue quarter past and quarter to times			
• Reads and makes analogue times to the nearest 5 minutes			

Mathletics Copyright © 3P Learning

Money

Name _____

1 Write the amounts on the price tags.

a one pound and 20 pence

b 80 pence

2 Put these amounts in order from least to most.

a £7.00 £7.50 £0.75

b £4.50 45p £45.00

3 How much money?

a

b

c

d

e

f

Copyright © 3P Learning Mathletics

Money

Name _____

4 How much money?

a

b

5 Show 2 different ways to make £1.75.

6 What change would you receive?

Item and cost	You pay with	Working out	Change
a			
b			

Skills and understandings	Not yet	Kind of	Got it
• Orders amounts from least to most			
• Skip counts in 2s, 5s, 20s, 10s and 50s to find amounts			
• Calculates amounts with mixed coins to £5.00			
• Makes equivalent amounts			
• Calculates simple change (to tens)			

Mathletics Copyright © 3P Learning

Money

Name _____

1 Write the amounts on the price tags.

a one pound and 20 pence

b 80 pence

2 Put these amounts in order from least to most.

a £7.00 £7.50 £0.75

b £4.50 45p £45.00

3 How much money?

a

b

c

d

e

f

Copyright © 3P Learning Mathletics

Money

Name _____

4 How much money?

a

b

5 Show 2 different ways to make £1.75.

6 What change would you receive?

Item and cost	You pay with	Working out	Change
a			
b			

Skills and understandings	Not yet	Kind of	Got it
• Orders amounts from least to most			
• Skip counts in 2s, 5s, 20s, 10s and 50s to find amounts			
• Calculates amounts with mixed coins to £5.00			
• Makes equivalent amounts			
• Calculates simple change (to tens)			

Mathletics Copyright © 3P Learning

Series C – Time and Money

Topic	Reference	Strand	Substrand	Objective
Money	2M3a	Measurement	-	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.
Money	2M3b	Measurement	-	Find different combinations of coins that equal the same amounts of money.
Money	2M9	Measurement	-	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
Time	2M4b	Measurement	-	Compare and sequence intervals of time.
Time	2M4a	Measurement	-	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.

Copyright © 3P Learning Mathletics