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You can do it. We can help.



Maths

Entry Level 3, Book 8

GLH 3

Time

Name	
Number	
Location	
Date Issued	



➤ Introduction

This booklet is part of your learning programme.

Remember to read carefully and try your best. Don't worry if you get stuck, make a note on the booklet and move on to the next task. Try coming back to it later, see if you can work it out then.

If you are still stuck, remember to make a note at the end of the booklet.

Throughout the booklet, you will see that some words have been printed **blue and bold**. You will find more detailed explanations of each of these words in the 'Glossary' at the back of the booklet.



Glossary is a list of often difficult or specialised words with their definitions, placed at the back of a book. You may also know this as a word bank.

By working through this booklet, you will become confident using different methods for reading, recording and calculating time. Being confident in being able to tell time and time management is an important employability skill. Whether you are a person who likes to schedule their time carefully, or someone who goes with the flow, we all must be aware of the time. Getting to work, sending children to school on time, catching buses and trains and telling the time is a necessity.

What Do the Symbols in this Booklet Mean?



Where you see this symbol, there is a skills practice or activity for you to complete.



Information, explanations and case studies are shown with this icon.



This shows you there is a glossary or word bank with the meaning and correct spelling of key words.



This icon shows where to write comments for your tutor to read.



This symbol lets you know there are some key points to remember.



The Big Picture



You are studying Entry Level 3 Maths, which is taught over 55 Guided Learning Hours (GLH).

The programme covers the units listed below. The unit that you're working on today is ticked.

Booklet		GLH	
1	Place Value		
2	Addition and Subtraction		
3	Multiplication		
4	Division		
5	Fractions		
6	Decimals & Money		
7	Rounding		
8	Time	3	
9	Shape & Space		
10	Measure		
11	Handling Data		
12	Recap and Summary		

Outcomes

These are the outcomes you can achieve by completing the learning activities in this booklet:

1

Read, measure and record time using AM and PM.

2

Read time from **analogue** and 24-hour digital clocks in hours and minutes.



Recap



A **recap** is an effective way of helping you to remember and apply what you have learnt. If this is your first booklet, it may help you to think about what you know already about this subject. Can you answer the following questions?



What was the last booklet you completed?



Can you remember what you learnt about?



Can you remember three key points from the booklet?

1

2

3

Time

Time is measured in seconds, minutes and hours.

60 seconds	=	1 minute
60 minutes	=	1 hour
24 hours	=	1 day
7 days	=	1 week
365 days	=	1 year
52 weeks	=	1 year
10 years	=	1 decade
100 years	=	1 century
1000 years	=	1 millennium

A clock or watch is called analogue when it has moving hands and (usually) hours marked from 1 to 12 to show you the time.



A clock or watch that shows the time using numbers, not hands, is called a digital clock.



Dates



In the UK, we use 3 different date formats: long, medium and short.

- The long date format is the date written in full
e.g. 24th September 2022
- The medium date format uses **abbreviations**
e.g. 24th Sept 22
- The short date format uses numbers
e.g. 24/09/22 (for this one you need to know which month goes with each number)



Task
1

Can you complete the table below with the different date formats?

Long	Medium	Short
8th July 1987		
	1st Jan 92	
		04/11/12
		29/02/24
	30th Oct 19	
25th December 2020		
	08th Aug 21	

Read, Measure and Record Time Using AM and PM

12-hour clock vs 24-hour clock

What is the 12-hour clock?

The 12-hour clock splits the 24-hour day into two periods of 12 hours. Any time before midday (12pm, the middle of the day) is classed as AM. Any time after midday is classed as PM.

AM	12	1	2	3	4	5	6	7	8	9	10	11
----	----	---	---	---	---	---	---	---	---	---	----	----

PM	12	1	2	3	4	5	6	7	8	9	10	11
----	----	---	---	---	---	---	---	---	---	---	----	----

What is the 24-hour clock?

The 24-hour clock runs from midnight to midnight and does not repeat numbers like the 12-hour clock.

It also always uses 4 digits, so 00:00, 03:30 or 14:25

It doesn't use AM or PM

00	01	02	03	04	05	06	07	08	09	10	11
----	----	----	----	----	----	----	----	----	----	----	----

12	13	14	15	16	17	18	19	20	21	22	23
----	----	----	----	----	----	----	----	----	----	----	----



When you are changing time after noon or midday, you add 12 to the hours; so 3pm is $12 + 3 = 15:00$.

When changing an afternoon time from the 24-hour clock, you take 12 away from the hours; so 18:00 is $18 - 12 = 6$ pm.

For example:

13:00 is 1pm

5am is 05:00

Read, Measure and Record Time Using AM and PM



Task
2

Can you fill in the gaps using the 24 and 12hr formats?

12-hour clock (am or pm)	24-hour clock (hh:mm)
12 midnight	00:00
1am	01:00
	02:00
3am	
	04:00
5am	05:00
	06:00
7am	
8am	08:00
9am	
	10:00
12 noon (midday)	12:00
1pm	13:00
2pm	
3pm	15:00
6pm	
7pm	19:00
	20:00
9pm	
11pm	

Read Time from Analogue Clocks in Hours and Minutes

What is the analogue clock?

An analogue clock uses movement around a central point to indicate the time. This can be with hands (like a watch or circular-faced clock) or with light (like a sundial). This type of clock isn't able to distinguish between AM and PM.

The long hand is used to work out the minutes:



Each number, from 1 to 12, represents 5 minutes.

Example times:

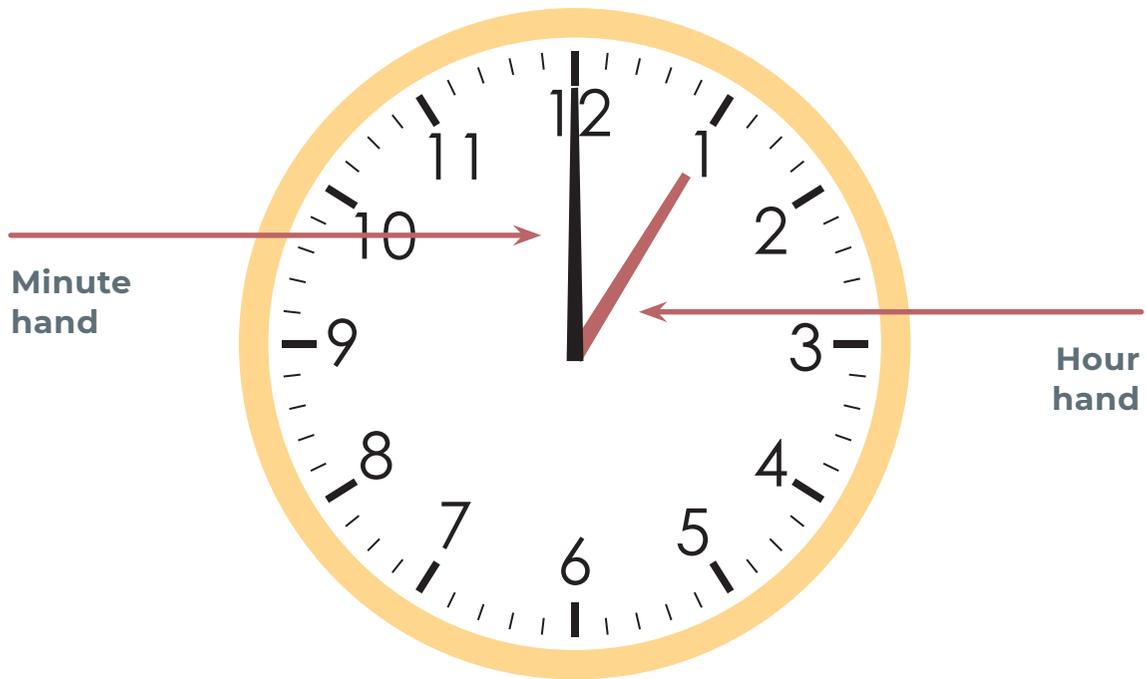
When the long hand is on the 3 ($3 \times 5 = 15$) it is 15 minutes past the hour, or **quarter past** the hour.

When the long hand is on the 6 ($6 \times 5 = 30$) it is 30 minutes past the hour, or **half past** the hour.

When the long hand is on the 9 ($9 \times 5 = 45$) it is 45 minutes past the hour, but we say **quarter to** the next hour.

Numbers that are before the 6 are **past** the hour. Numbers that are **after** the 6 are **to** the hour.

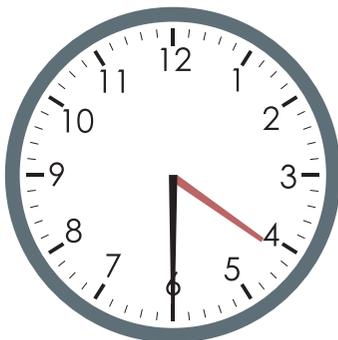
Read Time from Analogue Clocks in Hours and Minutes



The shorter hand tells you the hour.

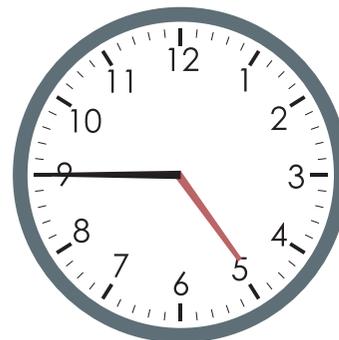
It takes one hour to go from one number to the next on the clock (for example, from 1 o'clock to 2 o'clock).

- This clock has the shorter hand (the hour hand) pointing exactly to the one.
- The longer hand (the minute hand) is pointing to the 12.
- The time is exactly **1 o'clock**.



Example 1:

Hour hand – past 4
Minute hand – 30 (6×5)
Time is 4:30 **OR** half past 4



Example 2:

Hour hand – past 4
Minute hand – 45 (9×5)
Time is 4:45 **OR** quarter to 5

Read Time from Analogue Clocks in Hours and Minutes



Task
3

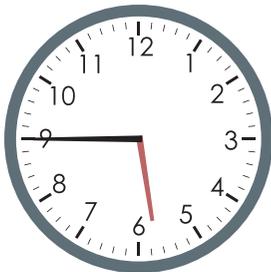
What time does each of these clocks show?
They are all in the pm (afternoon/evening/night).



1.



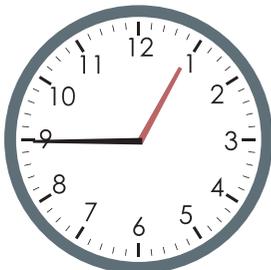
2.



3.



4.



5.

Read Time from Digital Clocks in Hours and Minutes

A digital clock is a clock that uses numbers to display the time in the format – hours : minutes, such as:

02:30

12:00

19:45

04:15

The first two numbers represent the hour
(usually in the 24-hour clock format).



The last two numbers represent the minutes past the hour.

This digital clock reads **23:16**. This time represents: **11:16 pm** or **16 minutes past 11** at night

Digital time examples	
12:00	Midday (noon)
02:30	Half past two in the morning (am)
04:15	Quarter past four in the morning (am)
19:45	Quarter to eight in the evening (pm)

Read Time from Digital Clocks in Hours and Minutes

24-hour clock	AM and PM clock
01:00	1:00 am
02:00	2:00 am
03:00	3:00 am
04:00	4:00 am
05:00	5:00 am
06:00	6:00 am
07:00	7:00 am
08:00	8:00 am
09:00	9:00 am
10:00	10:00 am
11:00	11:00 am
12:00	12:00 noon (midday)
13:00	1:00 pm
14:00	2:00 pm
15:00	3:00 pm
16:00	4:00 pm
17:00	5:00 pm
18:00	6:00 pm
19:00	7:00 pm
20:00	8:00 pm
21:00	9:00 pm
22:00	10:00 pm
23:00	11:00 pm
00:00	12:00 (midnight)

Converting Time



Task 4

Change these digital clocks into the 12-hour format (AM/PM).
Use the table on the previous page to help you.



1.



2.



3.



4.



5.



6.

Converting Time



Task
5

Can you change the times from analogue to digital?
They are all AM.



1.



2.



3.



4.



5.



6.



Converting Time



Task
6

Can you match the analogue clocks to the correct digital clocks?



Notes



Notes



Notes



Notes





Let's keep going

ROW

Feedback



WWW (What Went Well)

EBI (Even Better If)

Next steps

Learner feedback (Please provide some feedback for your tutor following the comments that you have just made on your work.)

Notes



What is a Digital Clock?



Task
7

Can you **convert** these? Have a look back to page 17 if you need reminding

12-hour	24-hour
3:25am	03:25
7:20am	
8:05am	
12:20am	
1:16am	
4:56am	
10:42am	
12:51am	

12-hour	24-hour
3:25pm	
7:20pm	
8:05pm	
12:20pm	
1:16pm	
4:56pm	
10:42pm	
12:51pm	



Task
8

Can you write the new times? Will this be AM or PM?

Time	New time
11.40am + 10 minutes =	
8.10am + 40 minutes =	
11.40pm + 30 minutes =	
7.10pm - 40 minutes =	
9.40am - 20 minutes =	
8.10am - 40 minutes =	
1.30pm - 1 hour 50 mins =	
8.30am + 2 hours 45 mins =	
11.15pm + 4 hours 25 mins =	
3.55am + 2 hours 12 mins =	

Comparing Lengths of Time

Here is a list of programmes showing on one TV channel on a Tuesday evening.

Cover up the **Length** column if you would like to be challenged more when you answer the questions on the following page.

TV programme	Start time / end time	Length
Quiz Quest	4.30pm - 5.00pm	30 minutes (or half an hour)
Cartoons	5.00pm - 5.20pm	20 minutes
Ready Steady Cook	5.20pm - 6.00pm	40 minutes
News	6.00pm - 6.35pm	35 minutes
Jubilee Street	6.35pm - 7.05pm	30 minutes (or half an hour)
Wacky Wildlife	7.05pm - 7.30pm	25 minutes
Homes Under the Hammer	7.30pm - 8.15pm	45 minutes
Film of the Week	8.15pm - ?	1 hour 30 minutes (1 and a half hours, or 90 minutes)



Continued on the following page.

Comparing Lengths of Time



Task 9

1. Which is longer: The News or Jubilee Street?
2. Which is shorter: Wacky Wildlife or Ready Steady Cook?
3. Which is longer: Homes Under the Hammer or Quiz Quest?
4. Which is the shortest programme?
5. The Film of the Week lasts one and a half hours. What time will it finish?
6. Which programmes last for more than half an hour?
7. Which programmes last less than half an hour?

Comparing Lengths of Time



Task
10

Complete the table below.

Time in words	12-hour clock	24-hour clock	Analogue clock
Seven o'clock in the morning			
Nine o'clock in the evening			
		23:00	
	3:15am		
Half past eight in the morning			
A quarter to ten at night			
		06:45	

Time in Everyday Life



Task 11

Planning to be places by certain times to ensure you reach an appointment on time is a very important part of everyday life. Being on time for an interview for instance, could be the difference between getting a job and not.

1. You start watching a film at 7:30pm. The film lasts for 2 hours and 15 minutes. What time does it finish?
2. You take the dog for a walk. You leave the house at 7:20 in the morning and get back at 9:15am. How long was the walk?
3. You are cooking a meal for some friends and you want it to be ready for 7.30pm. It will take 50 minutes to prepare and 1 hour 10 minutes to cook. What time do you need to start?
4. You are starting a new job. You start at 8am each morning. It is a 35-minute drive from your home to your job. You calculate it takes you 40 minutes to get showered, dressed and have breakfast. What is the latest time you should set your alarm clock for?

Recap

In this booklet, you have covered:

Reading, measuring and recording time using AM and PM.	✓
Reading time from analogue in hours and minutes.	✓
Reading time from 24-hour digital clocks in hours and minutes.	✓
Converting 12 and 24 hour time formats.	✓
Comparing lengths of time.	✓
Times in everyday life.	✓





Abbreviations	A shortened form of a word or phrase.
Analogue	An analogue clock is a clock that uses movement around a central dial to indicate the time. This can be with hands (like a watch or circular-faced clock) or with light (like a sundial).
Convert	To change (something) into a different form.

Next Steps

Now you have completed Booklet 8, please return this to your tutor/trainer.

Your tutor/trainer will mark the work and provide you with some feedback showing what you have done well and suggestions on improvements.

The next booklet will be provided to you.



Have Your Say



We would be interested in your opinion of this booklet.

1. **Was there anything you found easy in this workbook?** Yes No
If you answered yes, what did you find easy?

2. **Was there anything you found hard?** Yes No
If you answered yes, what did you find hard?

3. **Is there anything that you would like your tutor to go over again?** Yes No
If you answered yes, what is this?

4. **If your tutor provided learning aids, did you use them?** Yes No
If you answered yes, how were they useful?

5. **Would you like more support?** Yes No
If you answered yes, one of our Support Staff will get in touch with you.

6. **Do you have any questions?**

7. **What have you learnt from this booklet?**

Notes



Notes



Notes



