Lesson - Time to 5 minutes

Year: Year 2

Hello, I am Otto! Time tells us when things happen and how long they take. In this chapter you read an analogue clock to 5 minutes, write the time in digital form, and work out how long something takes. Knowing the time helps you to be on time for school, for football and for your favourite TV programme!

Starter activity

Look at the clock in your kitchen or classroom. What time is it? Where is the short hand? Where is the long hand? Now write down the times of your day: when you get up, when school starts, when you have lunch and when you go to bed. Put them in order. What is your favourite time of day?

Reading an analogue clock

Definition: analogue clock

An **analogue clock** has a face with the numbers 1 to 12 and two hands. The **short hand** is the **hour hand**. The **long hand** is the **minute hand**.

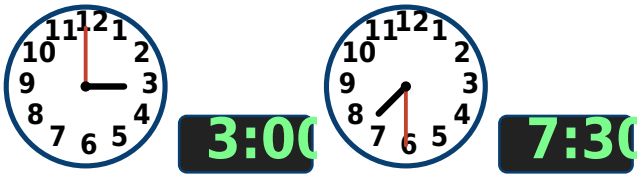
Key fact: time facts

- There are 60 seconds in 1 minute.
- There are 60 minutes in 1 hour.
- There are 24 hours in 1 day.
- There are 7 days in 1 week, and 12 months in 1 year.

O'clock and half past

Rule: o'clock and half past

- **O'clock:** the minute hand points to 12. The hour hand tells you the hour.
- **Half past:** the minute hand points to 6. The hour hand is halfway between two numbers.



The first clocks show 3 o'clock (3:00). The second clocks show half past 7 (7:30).

Worked example 1

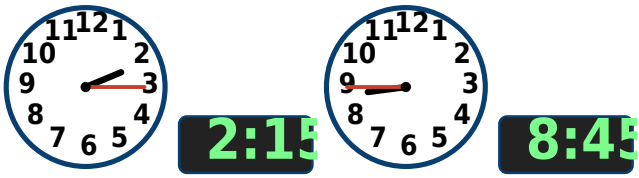
The short hand points halfway between 4 and 5. The long hand points to 6. What is the time?

The minute hand is at 6, so it is half past. The hour hand has passed 4, so the time is **half past 4 (4:30)**.

Quarter past and quarter to

Rule: quarter past and quarter to

- **Quarter past:** the minute hand points to 3. This is 15 minutes after the hour.
- **Quarter to:** the minute hand points to 9. This is 15 minutes before the next hour.



The first clocks show quarter past 2 (2:15). The second clocks show quarter to 9 (8:45).

Worked example 2

The minute hand points to 9 and the hour hand is just before the 6. What is the time?

The minute hand at 9 means quarter to. The hour hand is just before 6, so the time is **quarter to 6 (5:45)**.

Five-minute steps

Key fact: counting round the clock

Each number on the clock face is 5 minutes more than the one before. Count in fives round the clock: 12 is 0, 1 is 5, 2 is 10, 3 is 15, 4 is 20, 5 is 25, 6 is 30, 7 is 35, 8 is 40, 9 is 45, 10 is 50 and 11 is 55 minutes.

Method: reading the minutes

1. Look at where the minute hand points.
2. Count in 5s from 12 to that number.
3. Write the minutes after the hour.

Worked example 3

The minute hand points to 4. How many minutes past the hour is that?

Count in 5s: 5, 10, 15, 20. The time is **20 minutes past** the hour.

Past and to

Rule: past and to

- When the minute hand is on the **right-hand side** of the clock (1 to 6), we say **past** the hour.
- When the minute hand is on the **left-hand side** (7 to 11), we say **to** the next hour.
- For "to", count the minutes left until the next hour: 60 minus the minutes.



The first clocks show 20 past 4 (4:20). The second clocks show 10 to 7 (6:50).

Worked example 4

Write the time shown by a clock with the hour hand just before 9 and the minute hand on 10.

Minute hand on 10 is 50 minutes past, so 10 minutes to the next hour. The time is **10 to 9 (8:50)**.

Digital time

Definition: digital time

Digital time shows the hours and the minutes with numbers, such as 7:35. The numbers before the colon are the hours. The numbers after the colon are the minutes. Minutes less than 10 have a zero in front, such as 7:05.

Worked example 5

Write 25 past 3 as a digital time, and write 3:50 in words.

25 past 3 is **3:25**. 3:50 is 50 minutes past 3, which is **10 to 4**.

Key fact: a.m. and p.m.

The hours from midnight to noon are **a.m.** The hours from noon to midnight are **p.m.** 8 a.m. is breakfast time and 8 p.m. is bedtime.

Durations

Definition: duration

A **duration** tells us how long something takes. To find a duration, count on from the start time to the end time. We can use an hour and minutes, such as 1 hour 30 minutes.

Method: finding how long something takes

1. Write down the start time and the end time.
2. Count on to the next hour first.
3. Then count on the extra minutes to the end time.
4. Add the parts together.

Worked example 6

A film starts at 4:00 and finishes at 5:30. How long is the film?

4:00 to 5:00 is 1 hour. 5:00 to 5:30 is 30 minutes. The film lasts **1 hour 30 minutes**.

Worked example 7

School starts at 9:00 and lunch is at 12:00. How many hours of lessons are there before lunch?

9 to 12 is 3 hours. There are **3 hours** of lessons before lunch.

Watch out

Do not mix up the hands! The short hand is the hour hand and the long hand is the minute hand. When it is "quarter to 6", the hour hand is just before 6, so the digital time starts with 5, not 6: it is 5:45. Also, remember to count in 5s for the minutes, not in 1s.

Did you know?

The first clocks were sundials. They used the shadow of the sun to show the time. The clock in London that is called Big Ben has a minute hand that is 4.2 metres long, and the minute hand moves 1 minute every time the second hand goes round once. People divided the hour into 60 minutes more than 4000 years ago.

Otto's tip

Say the time in two ways: "quarter past 3" and "3:15". Use the clock to practise counting in fives. For durations, use a number line and jump to the next hour first. It makes the sum easy.