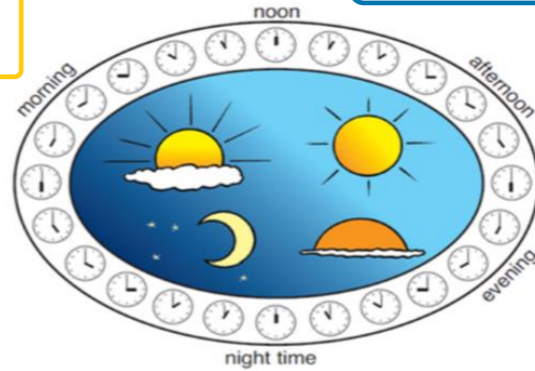


Year 2 Unit 7: Time (2 weeks)

Before you start...

- Can pupils recognise o'clock and half past on an analogue clock, accurately explaining the position of the hands?
- How much of a 'sense' of the duration of one minute do pupils have?
- Do you have enough geared clocks?

Video: Time models and images



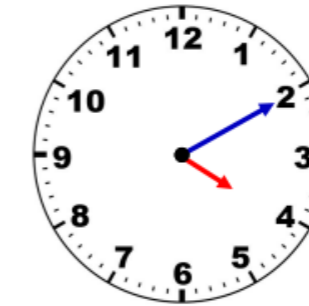
Consider the ways in which you use colloquial language for time in your classroom, and how this may impact on pupils' understanding. Phrases like 'in a minute' or 'just a second' can mean different things in different situations.



Video: Unravelling the clock

Representing the minute scale

The concept of the minute scale can be hard for pupils to identify on a clock face, and the videos provided exemplify ways in which you may make this clear. Consider recreating a clock face using blocks of five cubes to support this understanding.



I know the time is ten past four because the minute hand is pointing to ten on the minute scale and the hour hand is pointing to just after the four on the hour scale.

Understanding units of time

- L1 Know that there are 24 hours in one day
- L2 Know that there are 60 minutes in one hour

Pupils begin by applying their understanding of personal and social time to recognise that one whole day consists of 24 hours. This is attached to telling the time on an analogue clock, identifying that each hour is represented twice in 24 hours. Providing opportunities to relate these times to social and personal time (what you may be doing at 3 in the afternoon or 3 in the morning) helps pupils gain a sense of this. In Lesson 2, pupils connect their understanding of minutes to that of an hour and learn that there are 60 minutes in one hour. Take time to carefully connect this to a clock face, identifying that one rotation of the minute hand represents 60 minutes, whereas the hour hand only moves one interval. When thinking about minutes, use careful representations to identify that the larger intervals on a clock scale represent five minutes. Pupils then consider everyday activities and whether these could be reasonably measured in minutes or hours.

? What images and representations of analogue clocks will you use to deepen understanding of the scales of a clock?

Reading an analogue clock

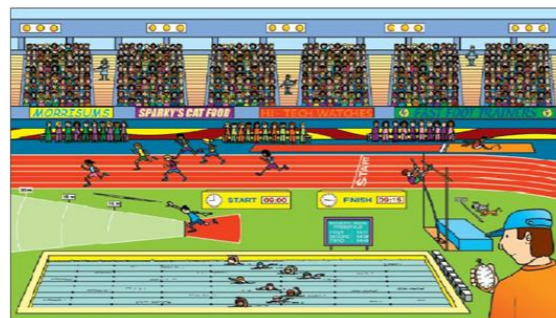
- L3 Identify quarter past on an analogue clock
- L4 Identify quarter to on an analogue clock
- L5 Read the time on the clock to the nearest five minutes (past)
- L6 Read the time on the clock to the nearest five minutes (to)
- L7 Sequence daily events

Pupils consolidate their understanding of o'clock and half past before learning quarter past, followed by quarter to. They connect the position of the minute hand with fraction understanding: the minute hand is a quarter of the way around the scale. Multiple opportunities should be provided for pupils to see and hear this as well as represent it for themselves. Through comparison of these times they consider what is the same and what is different and make connections between quarter past and the number of minutes this is equivalent to. In Lessons 5 and 6 reading a clock is extended to reading to the nearest five minutes, drawing on their understanding from Lesson 2. It is important that pupils develop a deep understanding of the dual nature of the scale, and repeated use of clear sentence stems can support this. In Lesson 7, pupils apply their understanding of reading time to the nearest five minutes to sequence events across a day.

? What set language structures will you use to support pupils in reading analogue clocks?

Tricky topic, time

The concept of time and reading an analogue clock is tricky for many people to grasp, particularly when digital representations are more prevalent. You may find that not all pupils grasp reading and writing the time at this point in the year. Consider how you can make it a regular feature of your day, making use of visual timetables, Maths Meetings and opportunities to connect the time to events. The more exposure to analogue time pupils have the more likely they are to secure this understanding. See this [article](#) for further ideas.



Calculating duration of time

- L8 Calculate durations of time in minutes
- L9 Calculate durations of time in hours and minutes

In the final two lessons of the unit, pupils apply their understanding of reading analogue clocks to calculating time durations, first in minutes and then in hours and minutes. Modelling on an analogue clock and counting in five minute intervals (forward and back) is key to developing conceptual understanding. In Lesson 9, an empty number line is used alongside an analogue clock to record the steps used to calculate the time duration. When using this representation, careful modelling by 'thinking aloud' the steps and the connection to the analogue clock is key to pupils' understanding.

? What opportunities will you provide to connect the representations of an analogue clock, an empty number line and the language structures used?

There is one consolidation lesson within the unit, and you may wish to use this here to continue to consolidate or deepen understanding of reading a clock.