Time

2023

Where is Time in Version 9 of The Australian Curriculum?

Time is broken into two distinct ideas:

- 1) Duration: how long. The time taken between two events.
- 2) Reading the Time

The expectation in version 9 of the curriculum is that students learn to read an analog clock first in Year 2 and then analog and digital clocks in Year 3

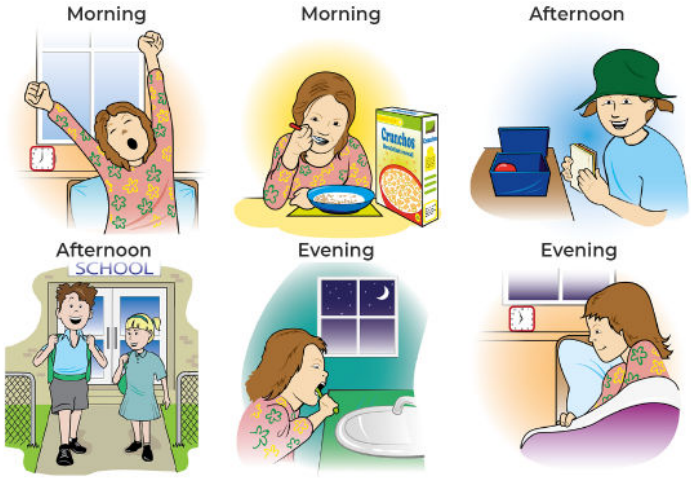
Reading an analog clock involves a range of complex skills (see Time Milestones on www.drpaulswan.com.au). To read a digital clock the hour is said, then the minutes. For example, 3:45pm is read as "three, forty-five".

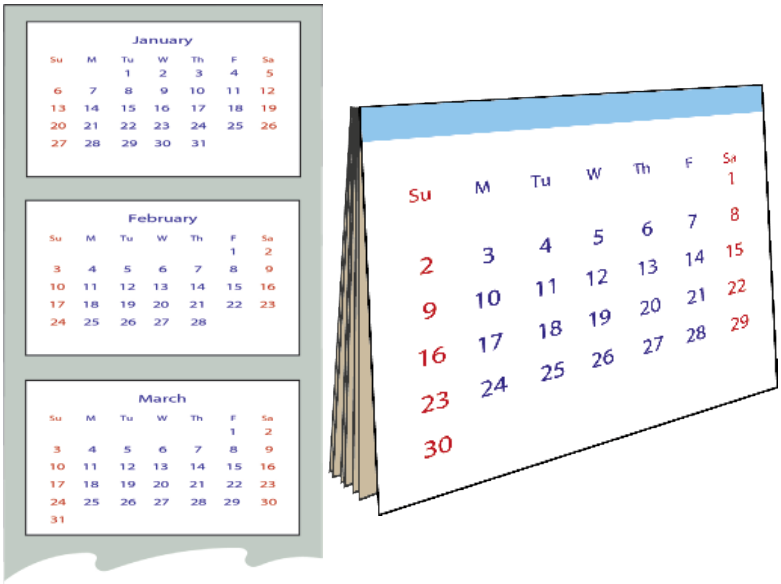
Foundation

AC9MFM02

> *Sequence days of the week and times of the day including morning, lunchtime, afternoon and nighttime and connect them to familiar events and actions*

Children would need to realise that the days of the week repeat in a predictable sequence. Children would be exposed to language like yesterday, today and tomorrow, day, week and weekend. These are then connected to regular events such as library every Tuesday.





Year 1

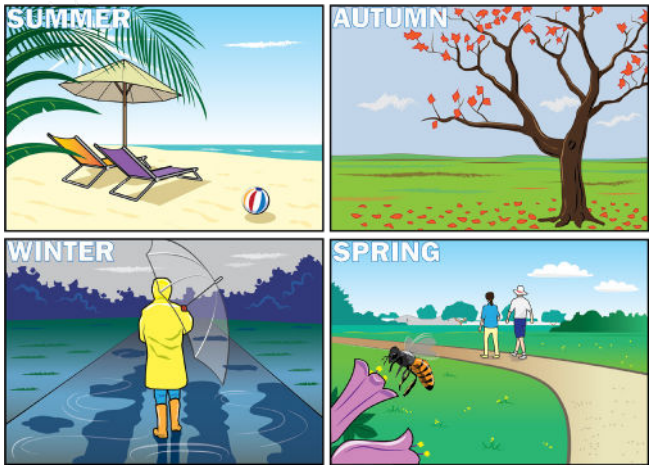
AC9M1M01

> *Compare directly and indirectly and order … events using attributes of … duration, communicating reasoning.*

Children can create their own 'rice timer' using two 2 L drink bottles or their own dripping water timer. The student-made timer or a sand timer can be used to 'time' events.

AC9M1M03

> *describe the duration and sequence of events using years, months, weeks, days, and hours.*



This involves using language such as hours, days, weeks, years to refer to time. Use this language when describing the duration of events. For example, it takes hours to …

Students can also look at calendars from different cultures. Notice how seasons vary according to culture, e.g. First Nations Australians' seasonal calendars. Some calendars, e.g, Chinese calendar are lunar based.

Year 2

This is the first year that direct reference is made to reading the time. (Note: using an analog clock).

AC9M2M03

> *Identify the date and determine the number of days between events using calendars*

Students can add key dates to calendar and use it to work out how long until each date.

AC9M2M04

> *Recognise and read the time represented on an analog clock to the hour, half-hour and quarter-hour*

Students can make an analog clock. Ideally refer to the "hour hand" and the "minute hand", not the "big hand" and the "little hand". Link the movement of each of the hands to how much time has passed. At 'half past the hour', the Hour hand will have move half way between two numbers on the clock, whereas the minute hand will have move have way around the clock to the 'six position'.

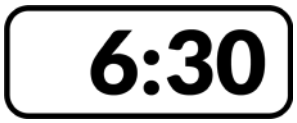
You will need a geared clock to show this correctly. Make connections such as "minutes are quicker than hours" so "the minute hand moves quicker than the hour hand".

Note: Most analog clocks are circular and show all the numbers 12 through to 11. Some children will experience difficulty when the shapes change, the numerals change (e.g. Roman numerals), some numerals are missing or no numeral appear.

Regular review (multiple exposures) to the reading of analog clocks will be required throughout the year. Some of this may happen incidentally by 'raising the noticing' of specific times in the day. For example, it is "quarter past twelve – it is lunch time. More formal reviews can be planned for in a warm up session before a lesson commences.

Year 3

Children are expected to read analog clocks to a higher degree of accuracy – the nearest minute. Digital Clocks are first introduced in this year. See the note on the difference in language between reading digital and analog clocks*. The new concepts of reading analog time to the minute and digital time should be taught and then become part of ongoing warm ups.

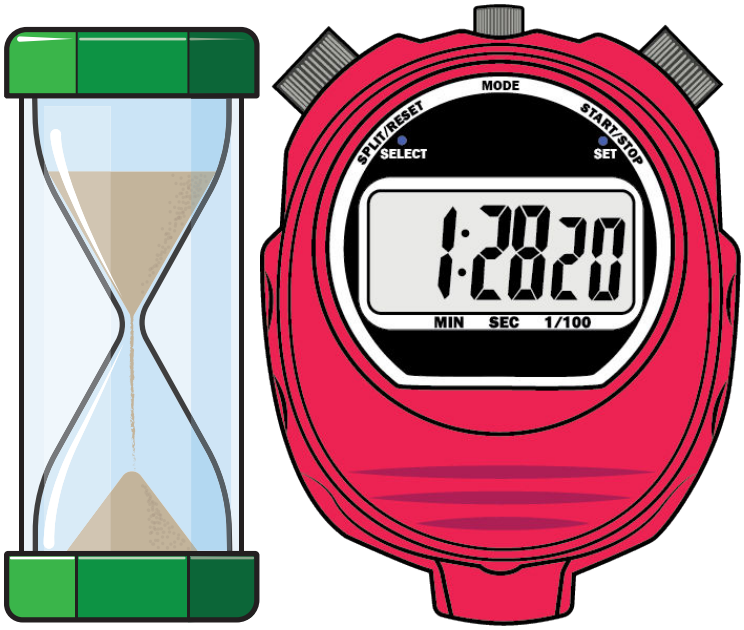


AC9M3M03

> *Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events.*

This would include:

- Setting the time on timing devices (digital)
- estimating the duration of time
- using sand timers and digital timers for more precision, to measure short durations of time.



AC9M3M04

> *… read the time (analog and digital) to the nearest minute.*

***Note:** Analog clocks are read using fractional language. The time 2:15 is read as "quarter past two". This becomes increasingly difficult for 45 minutes. The time 2:45 is not read as "three-quarters past two" instead it is read as "quarter to three". This requires a part-part-whole understanding using quarters. Students need to understand that 'three-quarters, add one-quarter, is a whole' and similarly 'one whole, subtract one quarter, is three quarters'.*

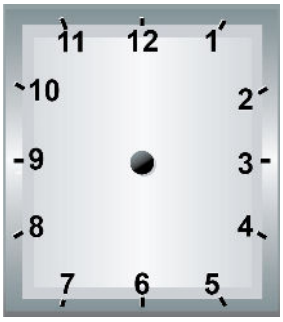
Year 4

Year four is the last year when reading a 12-hour clock is explicitly taught. Year four introduces the idea of am and pm and the precise reading of clocks and timing devices. Conversion between time units are carried out in this year.

AC9M4M01

> *interpret unmarked and partial units when measuring … , using scaled (analog clock) and digital (clock) instruments.*

This would include:



- reading and interpreting the scale of an analog clock without marked minutes to estimate the time to the nearest minute and to determine the duration of time between events
- using the timer or alarm function of a clock to alert when a specified duration has elapsed from a given starting time …

AC9M4M03

> *solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time*

Year 5

Twenty-four hour time is introduced in this year.

AC9M5M03

> *compare 12- and 24-hour time systems and solve practical problems involving the conversion between them.*

Year 6

Application of time in real life

AC9M6M03

> *interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys.*

Support for teaching Time

Time Matters books, Stop the Clock Board Game and Time Dominoes available from drpaulswan.com.au/shop