Topic: Time	Year: Four	Theme: Measurement

Key concepts and questions

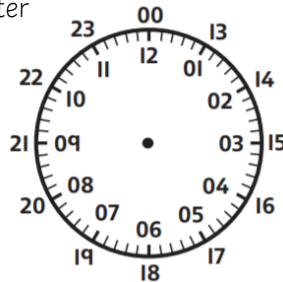### How do you convert between digital and analogue time?

Time can be written in both 12 hour time and 24 hour time.

12 hour time must have AM or PM after to show what time of day it is. AM is between midnight and midday, and PM between midday and midnight.

To convert from 12 hour to 24 hour time, after midday add 12 to the hour.
01:00pm = 13:00 as 1+12=13
Midnight is 00:00 in 24 hour time.

Key Vocabulary

convert	order	compare	duration
seconds	minutes	hours	days
weeks	months	years	

analogue	Represents the time using a hand that spins around a dial and is set to 12 hour time.	digital	Displays the time using exact numbers. Can be set to 24 hour time or 12 hour using AM and PM

Making connections

Count in 2s, 5s and 10s.

5 minutes

Related multiplication facts.

Multiplication facts will support converting between units of time.
For example, there are 7 days in a week so there are 28 days in 4 weeks as 4x7=28.
There are 12 months in 1 year so there are 36 months in 3 years as 3x12-36

Representations

Bar Models

Bar models can represent problems involving time and help with converting between units of time.

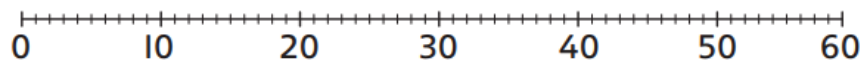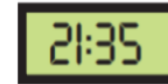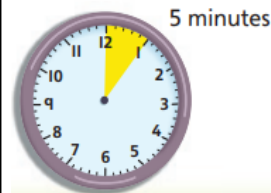| 1 minute	1 minute	1 minute
60 seconds	60 seconds	60 seconds

3 minutes = 180 seconds

I minute 45 seconds

I minute	45 seconds
___ seconds	___ seconds

60 seconds + 45 seconds = 105 seconds

Number Lines

Support counting on and counting back from a given time. In the below image it represents minutes in an hour.

0   10   20   30   40   50   60

Roman Numerals

Clock faces often use Roman numerals.

Fractions

Time uses fractions such as quarter past (15 minutes), half past (30 minutes) and quarter to (45 minutes).

15 minutes $\frac{1}{4}$ 30 minutes $\frac{1}{2}$ 45 minutes $\frac{3}{4}$ 60 minutes 1