Year 6 Week 4 Lesson 5			
Main Focus	**Prior Knowledge**	**Key Vocabulary**	**Curriculum Objectives**
Find time intervals using the 24-hour clock	Read the 24-hour clock and know how many minutes are in an hour	difference; minutes; hours	**N5.4B** Introduce BIDMAS (order of operations) for +, -, ×, ÷ only. **G5.1G** Solve problems involving time, including converting between 12-hour and 24-hour time.

Teaching Summary

Starter

Tell the time

Show 10:35 on an analogue clock and explain that this is an AM time. Students work in pairs, writing their answers on their whiteboard. One student writes the time as it would appear on a digital clock, and the other student writes the time in a number sentence, such as 25 to 11. Now show the usual analogue clock time, then write the time in a number sentence and also show the digital time. Repeat with other times, particularly those 'to' the hour. Students swap roles each time.

Teaching

- Explain that when hundreds or even thousands of people enter a marathon, their start times are often staggered, so there not too many people all start at the same time. Write the start and finish times of two marathon runners on the whiteboard (Anik: 10:14 —14:07 and Anuva: 9:57 — 14:02). Say: *Anik thinks he was faster than Anuva. Do you think he was right? How could you find out?*
- Demonstrate using a number line how to count up to find the difference between Anik's start and finish times.
- Ask students to find the difference between Jill's start and finish times. Ask: *Who was quicker?*
- Ask students to work in pairs to think of a start and finish time which would give a time in between the two.
- Say: *Anik and Anuva's friend Jennifer has run lots of marathons and finished in 3 h 24 min. She started at 9:45. Ask students to work out what time she finished.* Students share answers. Do they agree on the finish time? Ask students to explain how they worked out the answer. Sketch a line to show their steps, adding the hours, then 15 minutes to the next hour, then 9 minutes to finish.

- Explain that Rafi finished at 13:36 and ran his marathon in 3 h 49 min. Ask students to work out what time he started.
- Choose a student to explain how they found Rafi's start time.

Key Questions

- *How could you work out the time of each runner?*
- *What is the next time to mark on your line? How many minutes to the next hour?*

Watch out for

- Students who have trouble bridging the hour
- Students who forget there are 60 minutes, not 100 minutes, in the hour

Main Activity

Core

Finding time intervals

Write the following start times on a flip chart: 9:05, 9:12, 9:15, 9:22, 9:27 and 9:53.

Write the following finish times on the flip chart: 11:48, 11:56, 12:03, 12:15, 12:24, 12:37.

Call out times, such as 3 h, 3 h 15 min and 2 h 45 min. Students work in pairs to choose a pair of times which they think are roughly this time apart. Work it out together. The closest pair win that round. Talk through intervals such as 9:27 to 12:37, where the hops are 33 minutes, 2 hours and 37 minutes, giving a total of 2 h 70 min (3 h 10 min).

Assessment Focus

- Can students use counting up to calculate time intervals?

Y6 TB1 p37 Finding time intervals

Linked Resources: Y6 TB1 Answers p34-43

Support

Y6 TB1 p36 Finding time intervals

Linked Resources: Y6 TB1 Answers p34-43

Extend

Y6 TB1 p38 Finding time intervals

Linked Resources: Y6 TB1 Answers p34-43

Further Support

Use an analogue clock with moveable hands to help some students to work out the time to the next hour.

Plenary

Ask: *How could you check your answers?* Draw out using addition to check. Ask students to count on using a number line jotting to show their steps to check two of their time interval calculations.

Resources

Physical Resources

- Analogue clock with movable hands
- Flip chart
- Whiteboards
- Y6 TB1

Photocopiable Resources

- Y6 TB1 Answers p34-43