Max’s Time-Travel Adventure Log

Learning objective: To solve problems involving converting between units of time, calculating durations, and reading timetables using the 12-hour and 24-hour clock.

Max the monkey is planning a journey to visit his friends across the globe. Use your knowledge of time to help him organise his travel schedule. Complete the sections below to ensure Max reaches his destinations on time. Remember to show your working out for all calculations.

Word bank: duration · interval · 24-hour clock · am/pm · timetable · conversion · midday · midnight

1. Max’s first train departs at 09:45 and arrives at 13:20. Calculate the total duration of this journey in hours and minutes. Explain your method. (3 marks)

2. If a flight to visit Finn the dolphin leaves at 22:15 and arrives the next morning at 04:30, justify why it is easier to use the 24-hour clock for this calculation than the 12-hour clock. (3 marks)

3. Max wants to visit Zara in the art studio. The studio is open from 14:00 until 18:30. If Max arrives at 15:45 and stays for 135 minutes, will he still be there when the studio closes? Show your reasoning. (4 marks)

4. Compare and contrast the challenges of calculating time intervals that cross the 'midnight' threshold versus those that occur within a single day. (3 marks)

5. What might happen to Max's schedule if he confuses 06:00 (am) with 18:00 (pm) when booking his transport? Discuss the potential consequences. (3 marks)

6. Create a short, complex word problem involving a three-leg journey that requires converting seconds to minutes and minutes to hours for a friend to solve. (4 marks)

Extension challenge: Design a 24-hour timetable for a 'Day in the Life' of your chosen BookFlik character, including at least five different activities, precise start and end times, and a calculation of the total time spent on leisure versus tasks.