

Max's Time-Keeping Challenge: A Year 5 Assessment

Learning objective: To demonstrate mastery of time, including 12-hour and 24-hour clocks, time intervals, and converting between units of time.

Read each question carefully. Show your working out clearly, especially when calculating time intervals. Use the 24-hour clock where specified.

Max the monkey is organising a jungle festival. He needs to calculate the timing for every activity to ensure the day runs perfectly. Help Max solve his scheduling puzzles.

Word bank: Interval · Duration · 24-hour clock · Analogue · Digital · Midnight · Midday · Millennium

1. Max starts his festival preparations at 08:30. He finishes his first task at 10:15. How long did the task take in hours and minutes? (2 marks)

2. Convert the following times to the 24-hour clock format: A) 3:45 pm, B) 11:20 am, C) 12:10 am. (3 marks)

3. The festival puppet show is 75 minutes long. If the show starts at 14:20, at what time will it finish? (2 marks)

4. Max records that his friend Pip the caterpillar spent 3 hours and 12 minutes reading. How many minutes is this in total? (2 marks)

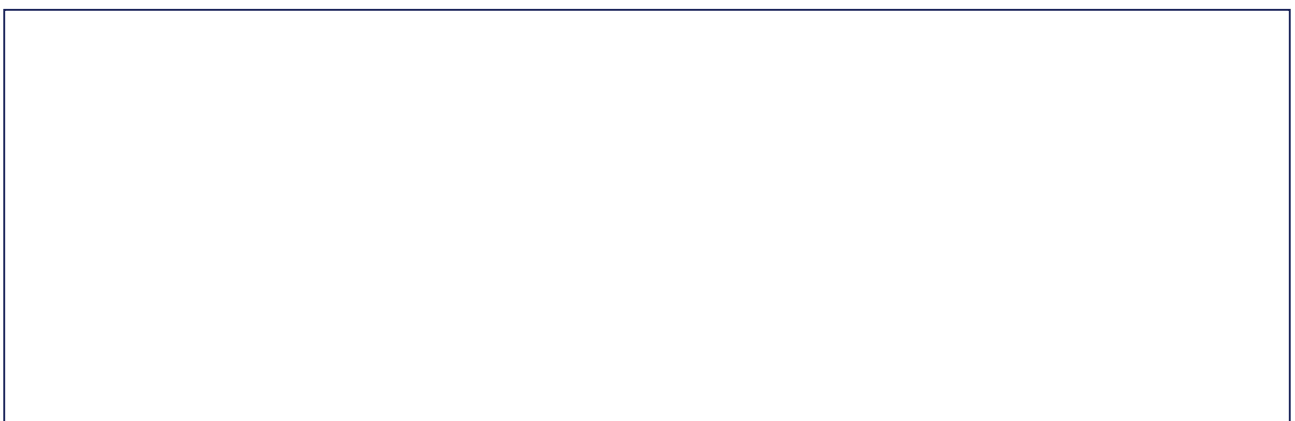
5. Compare and contrast the challenges of using an analogue clock versus a 24-hour digital clock. Why might a scientist prefer the 24-hour system? (4 marks)

6. A train journey to the festival leaves at 13:45 and arrives at 16:12. Explain why it is more efficient to calculate the time to the next hour first when working out the duration. (3 marks)

7. Max wants to buy snacks for the festival. He has £20.00. He buys fruit for £4.50 and nuts for £3.75. If the shopkeeper says the total time taken to pack the items was 4 minutes, explain why this information is irrelevant to the cost. (4 marks)

8. Creative Writing Task: Max has invented a 'Time Machine' watch. Write a short paragraph (approx. 50-75 words) describing a day where Max travels to different time zones. You must include at least three specific times (using 24-hour format) and calculate the duration of his stay in one of the locations. (5 marks)

Draw: Draw a clock face showing 16:45 in analogue format. Label the 'hour' and 'minute' hands clearly.



Extension challenge: Total: /25. Imagine you are organising a school event. Justify why you would use a 24-hour timetable for the programme. What might happen if you mixed up am and pm times during the planning phase?