

Max's Time-Traveling Market Challenge

Learning objective: To read, write and convert time between analogue and digital 12-hour and 24-hour clocks, and solve problems involving duration.

Max the monkey is organising a charity market! Help him keep track of the day's schedule. Read the clues for each stall's opening and closing times. Convert the times between analogue and digital formats, calculate the duration the stalls are open, and solve the logistical puzzles below. Remember: there are 60 minutes in an hour.

Word bank: duration · analogue · digital · midday · midnight · interval · 24-hour clock

1. The Book Stall opens at 09:15 and closes at 14:45. How long is it open for? Show your working out. (2 marks)

2. The Fruit Stall opens at 8:30 am and closes at 3:15 pm. Convert both these times into the 24-hour clock format. (2 marks)

3. Max wants to host a monkey-business show. It starts at 16:00 and lasts for 75 minutes. At what time will it finish? Give your answer in 12-hour format. (2 marks)

4. Explain why it is useful to use the 24-hour clock at a busy market rather than using 'am' and 'pm'. (3 marks)

5. If the Craft Stall closes at 17:30 and the Art Stall closes 45 minutes earlier, at what time does the Art Stall close? Use the 24-hour clock. (2 marks)

6. Justify your answer: If a clock shows 11:45, is it closer to midday or midnight? Explain how you know. (3 marks)

Draw: Draw two clock faces side-by-side. On the left, draw an analogue clock showing 10:10. On the right, draw the same time on a digital clock display using the 24-hour format.



Extension challenge: Max has a budget of £50.00 for the market. If he spends £12.50 on banners, £8.75 on balloons, and £15.20 on snacks, how much change will he have left? If he decides to buy a new stopwatch for £14.99 with his remaining money, will he have enough? Justify your answer with a calculation.