

Athletics Performance Log: The Max Athletics Challenge

Learning objective: To analyse athletic performance, identify areas for physical improvement, and apply mathematical reasoning to track personal progress in sprinting, jumping, and throwing events.

Max the monkey believes every movement is a mathematical puzzle! Use this log to record your results from today's athletics session. After completing your events, reflect on your technique and use your data to justify how you might improve your personal best (PB) next time. Be precise with your measurements and use clear, descriptive language for your analysis.

Word bank: velocity · trajectory · acceleration · stamina · technique · biomechanics · consistent · equilibrium

1. Event Data Analysis: List your chosen athletic event (e.g., 75m sprint or long jump) and record your measurement. Explain the mathematical relationship between your effort and the result achieved. (3 marks)

2. Technique Evaluation: Describe the specific physical movements you used during the event. Justify why these movements were the most efficient way to achieve your distance or time. (4 marks)

3. Comparative Reasoning: Compare your performance to your previous attempt. What specific changes to your 'biomechanics' (body movement) could lead to a better result next time? (4 marks)

4. Hypothesis: If you were to increase your training frequency by 50%, what impact might this have on your overall stamina? Provide a logical prediction. (3 marks)

5. Equipment Budgeting: If a new set of relay batons costs £12.50 and a set of starting blocks costs £45.00, calculate the total cost for the school to buy 4 of each item. Show your working. (3 marks)

6. Reflective Conclusion: Explain why 'consistency' is considered as important as 'raw speed' in high-level athletics. How does this apply to your own progress? (3 marks)

Extension challenge: Design a 'perfect' athletics training routine for a week. Create a timetable that balances high-intensity interval training (HIIT) with recovery periods. Explain the science behind why rest is essential for muscle repair and performance growth.