**Science 1.1 AS 90940** Demonstrate understanding of aspects of mechanics



Writing Excellence answers to **Interpreting motion-time graphs** questions

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| **ION FORMATION QUESTION** | |
| **Question:**  Describe the motion of the runner through sections    A, B, C, and D.  Your answers should include descriptions AND any relevant  Calculations | |
| **ANSWER** | |
| 1. state the type of graph used (distance-time or speed-time graph) |  |
| 2. starting with section **A** describe the type of motion (stationary, constant speed or acceleration) |  |
| 3. state the starting speed and final speed, as well as total time taken (use correct units) |  |
| 4. calculate the motion in section A using either v = ∆d/∆t or a = ∆v/∆t  Show working and use correct units |  |
| 5. next with section **B** describe the type of motion (stationary, constant speed or acceleration) |  |
| 6. state the starting speed and final speed, as well as total time taken (use correct units) – calculation not needed for stationary |  |
| 7. next with section **C** describe the type of motion (stationary, constant speed or acceleration) |  |
| 8. state the starting speed and final speed, as well as total time taken (use correct units) |  |
| 9. calculate the motion in section A using either v = ∆d/∆t or a = ∆v/∆t  Show working and use correct units (make sure to use a – sign if acceleration negative) |  |
| 10. finally with section **D** describe the type of motion (stationary, constant speed or acceleration) |  |
| 11. state the starting speed and final speed, as well as total time taken (use correct units) |  |

NOTE: The white column is how your answer would appear on your test paper so make sure you **write out complete sentences**. The grey area is just to help you structure your answer and would not appear in the question.