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



Writing Excellence answers to **Distance in a speed-time graph** questions

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| Distance in a speed-time graph **QUESTION** |
| **Question:**  In 16 s, **Bird B** travelled 121.5 m.  How much further did **Bird A** travel in the same time? *Show all working.*   |
| **ANSWER** |
| 1. divide the are under the graph (for bird A) in the **smallest number** of rectangles and triangles |  |
| 2. calculate the area for section **A** – a triangleArea = ½ base x heightOr Distance = ½ v x t |  |
| 3. calculate the area for section **B** – a rectangleArea= base x heightOr Distance = v x t |  |
| 4. calculate the area for section **C** – a triangleArea = ½ base x heightOr Distance = ½ v x t |  |
| 5. **add all 3 sections** together and show working plus units |  |
| 6. subtract one distance from the other to show the **differences in distance**  |  |
| 7. **compare** between the distances of both birds and state which has flown the furthest |  |

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.