Additional Structure Example – Maths Task

**Learning Objective:**

To be able to find accurate answers to problem solving questions

**Success Criteria:**

a) the correct mathematical method is selected

b) the correct answer is given

c) you consider whether the answer given is sensible

d) the question has been answered within the time allocated

## **Suggested problem solving steps:**

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| **Problem solving steps** | **Time allocated** |
| Read the question twice before answering it | 1 minute |
| Underline the factual parts of the problem including numerical values, distance, units and relationships | 1 minute |
| Choose an appropriate method to solve the problem using the following clues:   * What is the question asking for? * How the problem is presented? | 2 minutes |
| Use your chosen mathematical method to begin working out the answer:   * Translate any numbers from the problem into your method * Add formula or mathematical signs as appropriate | 2 minutes |
| Decide whether you need to use a calculator or not | 1 minute |
| Use maths to work out the answer. Write all your workings out down | 5 minutes |
| Check that you have completed everything the question asks | 1 minute |
| Check that your answer is sensible | 2 minutes |

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| **How to check that you have completed everything** | | **(✓)** |
| 1 | Does your answer have any units? Have you included them? |  |
| 2 | Have you used all of the information that you underlined? |  |
| 3 | How many parts are there to the answer? Have you completed them all? |  |
| 4 | Has the question been answered? Read the question to check your answer is sensible |  |
| 5 | Have you written all your workings out down? |  |

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| **How to work out whether your answer is reasonable:** | | (✓) |
| 1 | Compare the size of the numbers in the question to that of your answer, do they make sense? |  |
| 2 | Do the units in your answer relate to the question? |  |
| 3 | Does the answer correlate with your understanding or knowledge of the subject e.g. is that what something would cost, would the length be applicable in the real world? |  |

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| Hints  * “How many?” requires a numerical answer * “How long?”, “how far”, “find the diameter” and “find the perimeter” require a length unit * “How heavy?” requires a weight unit * “How fast?” requires a speed unit * “Find the volume…” requires a volume unit * “Explain why…” requires a written explanation * “What is the cost/price” requires a currency unit * “What is the probability?” requires a fraction**,** decimal or percentage |