**OUTCOME 3 – SCIENTIFIC INVESTIGATION POSTER MARKING SCHEME**

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| CRITERIA | MARKS | COMMENTS |
| **TITLE ( /1)**   * Is your question clear and concise?   ( ½ mark)   * Is it investigable? ½ mark) | /1 |  |
| **INTRODUCTION ( /5)**  Have you identified and defined relevant background concepts?   * Concepts identified? (2 marks)   Have you identified the variables?   * Independent (1 mark) * Dependant (1 mark) * Controlled (1 mark) | /5 |  |
| **AIM ( /1)**  Is it clear?  Is it related to the research question?  Does it relate directly to the independent and dependant variable? (1 mark) | /1 |  |
| **HYPOTHESIS ( /2)**  Is it a prediction? (1 mark)  Is it based on the effect changing on variable will have on another? (1 mark) | /2 |  |
| **METHODOLOGY ( /8)**  Comprehensive and appropriate equipment   * All listed (2 marks) * Some (1 mark) * None (1 marks)   Does your method meet your aim?  (4 marks)   * Controlled all variable but 1. * Described set- up accurately * Described procedure in detail   Have you attached your risk assessment? (1 mark)  Is the method repeatable? (1 mark) | /8 |  |
| **RESULTS ( /11)**  Have collected data appropriately? (2 marks)   * Table with title   Is your raw data clear, accurate and detailed? (2 marks)   * Units correct * Significant figures correct   Have you processed the data (graph) (5 marks)   * Title * Units * Scale appropriate * Axis correct * Points clear and line of best fit drawn   Have you explained reliability and validity of data? (2 marks)   * Reliability of line of best fit * Validity of extreme values | /11 |  |
| **DISCUSSION ( /14)**  Have you analysed and explained your investigation data? (2 marks)   * Data on graph * Value of unknown   Discuss possible sources of error  (2 marks)   * 2 errors discussed   How is your analysis limited by data you did or didn’t collect? (1 mark)   * 1 example given   Were the procedures you used appropriate and effective? (2 marks)   * Yes/no * Why/ why not?   Have you made practical suggestions for improvements to the experimental design? (2 marks)   * 2 suggestions   Have you suggested possible further investigations? ( 1 marks)  Depth of chemical understanding (2 marks) | /12 |  |
| Have you explained the link between findings and the information in the background information? (2 marks) | /2 |  |
| **CONCLUSION( /3)**  Is it valid? (1 mark)  Does it relate to the hypothesis? (1 mark)  Does it provided a justified response to research question? (1 mark) | /3 |  |
| **REFERENCES AND ACKNOWLEDGMENTS ( /3)**  Have you used a standard reference system? ( 1 mark)  Have you referenced logbook pages?  (1 mark)  Have you used scientific language and convections? (1 mark) | /3 |  |
| **Poster (/2)**  Is the finished product actually a poster and not a science report put on A3? | /2 |  |

Total /50 Converted to mark out of 30 /30