**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