

### Marking Guidelines – Year 10 Student Research Project 2017

Step	Outcomes Assessed	Criteria	Marks Awarded
1 & 2	N/A	Sheets stuck in log book. Completed mind map.	Yes / No Yes / No
3	4WS	Research question stated appropriately. (1) Question can be investigated scientifically. (1)	/2
	9WS 5WS 7WS	Research is pitched appropriately, evidence-based, coherent and progresses logically. (2) Research shows depth of reading, descriptive, informative, relevant to topic, provides simple rationale for chosen investigation. (2)	/4
	7WS	Research incorporates at least 3 sources. (1) Sources are reliable. (1) Sources are correctly referenced. (1)	/3
		Research is handwritten and approximately 500 words.	Yes / No
4	5WS	Independent variable identified correctly.	/1
	5WS	Dependent variable identified correctly.	/1
	5WS	Controlled variables identified correctly	/2
	5WS	Proposed measurement of dependent variable is appropriate and correctly described.	/2
	5WS	Measurements correctly identified as qualitative or quantitative.	/1
	4WS	Appropriate hypothesis stated.	/2
5	5WS	Appropriate equipment and materials identified	/2
	5WS	Logical method is described. Method is: <ul style="list-style-type: none"> <li>• Written in steps (1)</li> <li>• Shows logical sequence/progression (1)</li> <li>• IV and DV explicit (1)</li> <li>• Controlled variables are explicit (1)</li> <li>• Clearly describes data collection process (1)</li> </ul>	/5
	5WS	Method is designed to ensure reliable data is collected – must incorporate description of repetition.	/1
	5WS 9WS	Appropriate risk assessment conducted and presented.	/2
6	6WS	Comprehensive photo diary included to document the student carrying out of the investigation. Diaries should illustrate the safe assembly and manipulation of equipment, as well as the collection of data (2). Photos <u>must</u> be accompanied by descriptive captions (2).	/4
	6WS	Identifies and records any methodological difficulties and plausible, appropriate changes.	Yes / No
7	9WS 6WS	Results presented accurately and honestly in a <b>table</b> [headings, ruled, correctly recorded data. (3)] AND <b>graph</b> [title, x-axis label, y-axis label, correct scale, correct type of graph, correct data plotting (5)] to clearly show relationships between variables.	/8
	5WS 9WS	Student identifies and reports appropriate units.	/1



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8	7WS	Analyses patterns and trends in data to correctly describe relationships observed between variables.	/2
	7WS	Explains results and observations and provides evidence-based arguments by relating their results to their research.	/2
	7WS	Outlines whether data supports or discounts the hypothesis.	/1
	7WS	Assesses the reliability (3) and validity (3) of the results.	/4
	6WS	Evaluates the overall effectiveness of the method used and suggests improvements to the procedure for future research.	/2
	7WS	Draws conclusion(s) using their knowledge of scientific concepts.	/2
9	9WS	Produce a typed scientific report to formally present research and findings. Report includes: Title, Aim, Hypothesis, Materials, Risk Assessment, Method, Results, Discussion, Conclusion <b>NB. Content has already been assessed. Marks are awarded here for ability to present and communicate information effectively</b>	/4
	1VA	Student acknowledges teacher written feedback on previous steps and makes suggested changes/improvements to final scientific report write-up. Through receptivity to feedback and application to their project, the student appreciates the importance of science and the role of scientific inquiry in increasing worldly understanding.	/2
TOTAL:			/60

**Comment:**