

Name: \_\_\_\_\_

N A M E

	Evidence/Judgements for Achievement	Evidence/Judgements for Achievement with Merit	Evidence/Judgements for Achievement with Excellence	Notes
<b>Problem</b>	<ul style="list-style-type: none"> <li>posed a causal relationship question that clearly states the experimental situation</li> </ul>	<ul style="list-style-type: none"> <li>made a prediction for their experiment, with justification using research findings</li> </ul>	<ul style="list-style-type: none"> <li>used contextual and statistical knowledge informed by research</li> </ul>	
<b>Plan</b>	<ul style="list-style-type: none"> <li><i>identified</i> the experimental units</li> <li>identified the treatment how it will be manipulated</li> <li>identified the response variable and how it will be measured</li> <li>randomly allocated groups</li> <li>identified other sources of variation that could affect the results of the experiment.</li> </ul>	<ul style="list-style-type: none"> <li><i>justified</i> the allocation of the treatment</li> <li>used contextual knowledge to identify relevant variables that could affect the response variable and used statistical knowledge to describe how these sources of variation could be controlled or balanced.</li> </ul>	<ul style="list-style-type: none"> <li>justified how the treatment variable (including levels and groups) and response variable were defined for the experiment</li> <li>The student has reflected on how the experiment was conducted, identifying key issues in the design and explaining how any design issues might be addressed.</li> </ul>	
<b>Analysis</b>	<ul style="list-style-type: none"> <li>produced appropriate displays and statistics</li> <li>described key relevant features</li> <li>used re-randomisation test</li> </ul>	<ul style="list-style-type: none"> <li>justified their statistical method in relation to the causal relationship.</li> </ul>	<ul style="list-style-type: none"> <li>used the feature of the data to explore further factors and effects</li> <li>used statistical insight to justify their method in relation to the causal relationship</li> </ul>	
<b>Inference</b>	<ul style="list-style-type: none"> <li>Uses re-randomisation to make correct inference</li> </ul>	<ul style="list-style-type: none"> <li>assessed and interpreted the strength of evidence for the inference about the causal relationship investigated</li> </ul>	<ul style="list-style-type: none"> <li>Justified the use of re-randomisation by describing the process leading to re-randomisation</li> </ul>	
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>The student has clearly communicated each component of the investigative process.</li> <li><i>Identifying</i> any issues that arose during the experiment and how they might affect their findings.</li> </ul>	<ul style="list-style-type: none"> <li><i>Discuss</i> any issues that arose during the experiment and how they might affect their findings.</li> <li>linked the design of the experiment to their results and research findings.</li> </ul>	<ul style="list-style-type: none"> <li>discussed how their findings relate to other research findings</li> <li>used informed contextual knowledge to generalise to the wider experimental situation in their discussion of their findings.</li> </ul>	

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.