



COONABARABRAN HIGH SCHOOL
ASSESSMENT NOTIFICATION

SUBJECT: Year 10 Science

TEACHER: S. Moore, P. Ian, K. Christoff, K. Nash

TOPIC: Student Research Project (SRP) on an Area of Student Interest

WEIGHTING: 25%

DATE OF NOTIFICATION: Week 2 Term 3

DUE DATE: 21.08.20 (Week 5 Term 3)

THE TASK:

You will complete a Student Research Project (SRP) relating to an area of your own choice.

THIS WILL INVOLVE:

Firstly;

- Creating an **inquiry question** based on a particular area of interest to you, and
- Completing the Student **Research Project Planning Sheet**
- Obtaining **approval** from your teacher to carry out the SRP.

You will then:

- **design, plan and conduct** research (set of experiments and background research from secondary sources) relating to your inquiry question,
- hand in your **lab notes** demonstrating ongoing progress of your SRP, and
- a **formal report** presenting your SRP, results and findings.

Additional information will be provided to guide you in approaching the SRP. This includes:

- writing a formal scientific report
- developing a hypothesis
- Harvard style bibliography
- Validity, reliability, accuracy

TIME FRAME:

You will be allocated class time until the end of Week 5 of this term to complete the SRP including lab notes, planning and designing experiments, conducting experiments, doing background research and writing a formal report about your investigation.

YOU WILL BE REQUIRED TO:

- Access information from at least three reliable sources when researching concepts relating to your inquiry question.
- Complete work in class and at home.
- Organise your own equipment and resources (some of which may be borrowed/accessed from the school).
- Be responsible for your Lab notes

TO BE SUBMITTED:

- A copy of your lab notes(hand written)
- A hard copy of your final SRP report, typed using Word or equivalent
 - o Font size 12
 - o Line spacing of 1.5

Outcomes
SC5-4WS A student develops a question or hypothesis to be investigated scientifically
SC5-5WS A student produces a plan to investigate identified questions, hypotheses or problems, individually and collaboratively
SC5-6WS A student undertakes first-hand investigations to collect valid and reliable data and information, individually and collaboratively
SC5-7WS A student processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions
SC5-WS A student presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language, conventions and representations

Three-Point Assessment

- 0 =** The element described is missing.
- 1 =** The element described is present but does not meet the standard described. Completed with guidance.
- 2 =** The element is present and meets the standard but needs some revision or improvement. Completed with some guidance.
- 3 =** The element is present and meets or exceeds the standard and no revision is recommended. Completed independently.

Part 1: Planning Sheet and Lab Notes

Element	Points				Described Standards
VA2	0	1	2	3	Lab work and Lab notes
Engaged with Investigations					Worked ethically, collaboratively, and effectively, used lesson time efficiently.
Recorded thorough lab notes					Organised and regularly updated, neat, own work
Investigation					
4WS	0	1	2	3	Formulates hypotheses that can be investigated scientifically
Inquiry Question					Relevant to investigation
Hypothesis					A testable statement, written as an 'If, then' statement, includes independent and dependent variables in the hypothesis.
5WS	0	1	2	3	Planning Investigations
Preliminary Research					Records notes of background information relevant to the SRP. A variety of sources recorded.
Experimental Design					Aim (relevant), risk assessment included (x3), all equipment listed, identifies suitable measurement devices (accurate/sensitivity).
Method					Reliable (includes repetition) and valid (tests the aim and keeps controlled variables constant).
Method diagram					Clearly labelled diagram of apparatus used.
Variables					Identifies independent, dependent and controlled variables
6WS	0	1	2	3	Conducting Investigations
Conducting the Investigation					An appropriate method, equipment, and units used. Results reported accurately and honestly. Any improvements to the method were implemented and recorded.
Safety					The investigation was conducted safely and ethically.
7WS	0	1	2	3	Processes, analyses and evaluates data from FHI and secondary sources to develop evidence-based arguments and conclusions
Tables					Appropriate format used, included correct units, organised, the independent variable in the first column.
Graphs					Appropriate graph type chosen, title, axes labelled, x-axis (independent variable or time), y-axis (dependent variable), even increments, data plotted correctly.
Processing Data					Identifies/extracts data from graph/table that supports/refutes hypothesis.
Discussion/Evaluation	0	1	2	3	Discussion points in lab book and/or formal discussion in Report
Analysing Data					Identifies patterns/trends/inconsistencies in data. Identifies ways to improve the quality of data.
Validity and Reliability					Identifies controlled variables, describes how to control variables, and assesses the effects on results. Describes the consistency/inconsistencies in results, identifies ways for improvement. Suggests thoughtful, meaningful and relevant improvements to the planned procedure

Part 2: Formal Report

9WS	0	1	2	3	Communicating – Presents science ideas and evidence in a formal scientific report
Scientific writing					Scientific language, terminology, text types and writing style used throughout, Clear concise language, targeting the appropriate audience. Written using third person passive voice.
Explanations					Presents sustained, logical and cohesive explanations – uses cause and effect statements, Evidence-based arguments
Images					Selects appropriate images, diagrams, tables, graphs that enhance descriptions and explanations of scientific phenomena.
Presentation					Organised with clear subheadings; information in appropriate sections of formal report; sections of report in correct sequence.
TOTAL	/60				
Comments					