Gymea Technology High School
INSPIRE. LEARN. SUCCEED.

Year 12, Biology

Task 1: Depth Study

Due Date: Wednesday 25th February Period 4

Task Distributed: 2nd February

Unit: Genetics

Task Type: Depth Study

Task Weighting: 30%

Outcomes: 11/12-2, 11/12-4, 11/12-5, 11/12-6, 11/12-7, BIO 12-12,

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Task Description

This assessment addresses the syllabus requirement for students to complete a Depth Study.

A depth study is any type of investigation that allows the student to gain knowledge in an area of their individual interest. It includes secondary-source research, data analysis and a written report. Students will be examined on their ability to gather relevant secondary-sourced data and how they communicate their findings to a particular audience.

This depth study analyses the validity, accuracy and reliability of secondary sources. Students will be modelled how to evaluate a scientific or media article for accuracy, validity and reliability in class over several lessons. They then will be given an unseen article to evaluate in class.

NESA Glossary of Key Words

Understand the verb associated with the task. The verb will provide an understanding of the detail needed to successfully answer the question.

- DISCUSS: Identify issues and provide points for and/or against.
- EVALUATE: Make a judgement based on criteria; determine the value of.

Check the NESA Glossary of Key Words for further guidance https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/hsc/hsc-student-guide/glossary-keywords

Details of Submission

Students will complete an evaluation of an unseen article in class and submit their work by the end of the period. They will be marked on their ability to make informed judgements on the accuracy, reliability and validity of the information contained in the article. They will also be awarded marks on their communication and structure of their response.

Teacher Feedback and Student Self-Reflection

- The task will typically be returned to students within 14 days of the due date.
- At this time feedback including information on how to improve will be provided through marking criteria and written feedback.
- Students can clarify or seek further feedback by speaking with their teacher or the assessment marker.

Upon return of the task, students will also be expected to complete a self-reflection.

How does this link to my learning?

- This task will enable students to develop their data analysis, secondary source evaluation skills and presentation skills.
- They will also further their understanding in an area of genetics and current research
- This information will be relevant when studying the Genetics and Disease topics covered in year 12 and is a valuable skill that they can apply in their HSC.

Assessment Procedures

All students should be fully aware of the School Assessment Procedures for their year group. These were provided at the beginning of the school year and are available off the school website under the Learning Tab for each year group.

4. HOW WILL MARKS BE AWARDED TO MEASURE MY LEARNING?

Section *Outcomes*	**0 marks**	**2 mark**	**4 marks**	**6 marks**	**Marks**
Evaluation of Secondary Source *BIO11/12-2* *BIO11/12-4* *BIO11/12-5* *BIO11/12-6* **Evaluate processes, claims and conclusions by considering the quality of available evidence, and use reasoning to construct scientific arguments. Where appropriate, mathematical models are to be applied to demonstrate the trends and relationships that occur in data.**	No Participation in class analysis tasks	Full participation in class analysis tasks			
	No discussion of general trends discussed in the article	Data/information has not been used to derive tends or patterns that are relevant to the posed question but trends identified.	Data/information has been used to derive tends or patterns that are relevant to the posed evaluation. Small errors present OR areas for improvement identified.	Data/information has been successfully used to derive tends or patterns that are relevant to the posed question.	
	The sources of error/uncertainty and limitations in data have not been identified. No assessment of the impact of these errors is included in the discussion.	The sources of error/uncertainty and limitations in data have been identified. No assessment of the impact of these errors is included in the discussion.	The sources of error/uncertainty and limitations in data have been identified and an assessment of the impact of these errors to is included in the discussion.		
	No Discussion of Accuracy	Discussion of some equipment and/or methods used and limitations	Extensive discussion of relevant equipment and/or methods and limitations of accuracy		
	No Discussion of Reliability	Discussion about reliability but may be incomplete or does not link to data used	Extensive discussion of reliability with specific reference to data used		
	No Discussion of Validity	Discussion about validity but may be incomplete or does not link to experimental method, design and variables	Succinct and logical discussion of validity with specific reference to experimental method, design and variables	.	
Communication *BIO12-7*	Evaluation is very brief with sections missing and with incorrect information	Evaluation is brief AND/OR difficult to read. Does not use scientific techniques. Sections miss key information or contain incorrect information.	Constructs well- reasoned scientific arguments, without using scientific techniques to draw conclusions but displays good written communication but it does contain areas that are unclear or hard to understand.	Constructs well- reasoned scientific arguments, effectively using scientific techniques to draw conclusions and displays very high quality written communication which is clear and concise.	

TOTAL /30