



Year 10 Science

Task 3: Evolution Research Task

Due Date: Thursday 19th September 2024, Week 9A

Task Distributed: 9th August 2024

Unit: Evolution

Task Type: Research Task

Task Weighting: 20%

Outcomes: SC5-14LW, SC5-15LW, SC5-6WS, SC5-7WS, SC5-9WS

Task Description

In this task, students will work individually to demonstrate their understanding of the theory of evolution, its development over time and its evidence base.

Charles Darwin's Journey on The Beagle

Student will **investigate** Charles Darwin's journey on The Beagle, the observations/discoveries he made during the journey and his subsequent development of his theory of evolution using a variety of secondary sources. Students will **extract** details of Charles Darwin's journey on The Beagle, specifically where he made the discoveries which would lead him to developing his theory of evolution, when he made his discoveries, and what those discoveries were. These details will be presented in the form of diary entries, written by Darwin himself in the first person.

Your Task Is To:

1. Research Charles Darwin's journey on the HMS Beagle and his discoveries.
2. Write **four** diary entries as Darwin at different points in the journey (~ 300 words each).
3. Each diary entry should:
 - a. Be written in the first person (as if it was Darwin writing it)
 - b. Include a date (when the entry was made) and approximate location (where Darwin was at the time e.g. West coast of Africa/ at sea/ Galapagos Islands), include relevant maps.
 - c. Include details of an observation or discovery which contributed to the development of the theory of evolution, including drawings/ diagrams of his discoveries.
 - d. Include the details of any possible conclusions Darwin might have drawn after making the above observation or discovery, and how these link to his theory of natural selection/ evolution.
 - e. You may also wish to include details about what life might have been like on a sail ship in the 1800s, Darwin's interactions with other members of the crew etc.
4. **At least one** of your diary entries must be set while Darwin was exploring the Galapagos Islands.
5. After your diary entries you should also include a reference list (a list of all the websites/ books/ articles you used as sources of information) formatted according to school guidelines (Harvard style referencing).

NESA Glossary of Key Words

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

Investigate: Plan, inquire into and draw conclusions about

Extract: Choose relevant and/or appropriate details

<https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/hsc/hsc-student-guide/glossary-keywords>

Details of Submission

The assignment **MUST** be produced as **google doc** and submitted electronically via Google Classroom by the submission date. It will be marked and returned on Google Classroom.

Teacher Feedback and Student Self-Reflection

- The task will typically be returned to students within 2 weeks of the due date.
- At this time feedback including information on how to improve will be provided through mechanisms such as marking criteria, and/or written comments.
- Students can clarify or seek further feedback by the speaking with their teacher or the assessment marker.
- You will also receive feedback on your literacy performance based on the criteria in the school's literacy marking rubric. The marks achieved for literacy will account for between 10% – 20% of the maximum task value.

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

Students will be required to complete a self-reflection worksheet at the time students receive their assessment mark and teacher feedback. Self-reflection is an important part of the learning process as it provides an opportunity to reflect on the strength of our performance, as well as areas that have been identified to strengthen in future tasks.

How does this link to my learning?

Learning and integrating the basic science process skills together and gradually developing abilities to design fair tests is increasingly emphasised in successive grade levels and is an expectation of students in senior year.

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.

MARKING CRITERIA:

OUTCOME	INDICATOR	EXPERIENCING DIFFICULTY	DEVELOPING	COMPETENT	OUTSTANDING	MARK / COMMENTS	
SC5-7WS Processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions	Design/historical detail of Journal	Journal design is very basic.	Journal design is simple	Journal design is appropriate for students' level	Journal design is complex & creative, displaying real thought in planning		
		1	2	3	4		
	Diary Entries	Only One Diary Entries Included	Two Diary Entries Included	Three Diary Entries Included	Four Diary Entries Included		
		1	2	3	4		
	Diary Entry Format	Some diary entries formatted correctly and/or dates missing and/or not first person	Most diary entries formatted correctly, first person but some errors or dates missing	All Diary Entries correctly formatted, first person and including date			
		1	2	3			
	Presents information about Darwin's travel itinerary	No information about Darwin's travel itinerary	Simplistic account of Darwin's travel itinerary	Appropriate account of Darwin's travel itinerary	Detailed account of Darwin's travel itinerary		
		0	2	4	5- 6		
	Inclusion of maps in presentation	No maps included in presentation	One relevant map included in presentation	Two or more relevant maps included in presentation			
		0	1	2			
	SC5-9WS Presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language, conventions and representations	Observations recorded by Darwin included	Basic/vague information on observations made by Darwin	One detailed observation made by Darwin included	2-3 detailed observations made by Darwin included	4 or more detailed observations made by Darwin included	
		1	2	4	5 - 6		
Includes picture or diagrams of Darwin's discoveries.	Picture or diagram not included	Pictures or/ & diagrams included					
	0	1					
Conclusions made by Darwin linking observation to theories included	Basic/vague information on conclusion / theories made by Darwin	One conclusion/link to theories made by Darwin included	2-3 conclusions/ links to theories made by Darwin included	4 or more detailed conclusions/ links to theories made by Darwin included			
	0	1	4	5 - 6			
SC5-6WS Undertakes first-hand investigations to collect valid and reliable data and information, individually and collaboratively	Reference formatted correctly	No references formatted correctly	Incorrectly formatted references used	1-2 Correctly formatted references used	All references formatted correctly		
		0	1	2	2		
	Use of multiple secondary sources	Only one source used	2-3 sources used	Multiple sources used			
		1	2	3			

LITERACY CRITERIA:

Literacy Outcomes	Elementary achievement You have:	Limited achievement You have:	Satisfactory achievement You have:	High achievement You have:	Outstanding achievement You have:
Vocabulary <i>Uses technical vocabulary to explain concepts and/or range of precise and appropriate words for effect</i>	Very limited response. Few content words used.	Only simple words are used.	Some precise and technical words are used.	Sustained use of precise and technical words.	Sustained, consistent and fluent use of precise and technical words.
	0	0.25	0.5	0.75	1
Punctuation <i>Use of correct and appropriate sentence and other punctuation for effect, and to aid in reading of the text</i>	No evidence of correct sentence punctuation.	Sentence punctuation is correctly used in at least one place - <i>one sentence is punctuated correctly.</i>	Some correct sentence level punctuation (at least 50%). May attempt other punctuation where it is required.	Mostly correct sentence level punctuation (80%) and at least two correct examples of other punctuation.	Writing contains accurate use of all applicable punctuation.
	0	0.25	0.5	0.75	1
Sentences & Cohesion <i>The intentional construction of a variety of sentences to match purpose and audience, and the control of multiple sentence threads across the whole text.</i>	No clear evidence of sentences: a list of words OR text fragments.	At least one sentence is used correctly. Some meaning can be construed from the text.	Some correct formation of sentences. Mainly uses simple and compound sentences but may attempt more complex structures.	Most sentences are correct. Range of sentence types and connectives are evident, but with varied effectiveness.	All sentences are correct, effective and controlled, and include a range of sentence types and connectives (complex sentences and other sophisticated structures)
	0	0.25	0.5	0.75	1
Paragraphs <i>Paragraphs are used to effectively structure information and partition events and ideas</i>	No correct use of paragraphing; may be a block of text or random breaks.	Ideas are separated; paragraphs may contain some unrelated ideas.	At least ONE paragraph is well structured and develops an idea	Writing is organised into paragraphs that assist the reader to digest chunks of the text but may not be linked or executed effectively.	All components of the paragraphs are evident, and paragraphing is consistent and well-developed across the whole text.
	0	0.25	0.5	0.75	1
Text Structure <i>Uses features of the appropriate text type</i>	No evidence of the structural features of the appropriate text type. <i>No attempt to write in the appropriate text type and/or response is off task.</i>	Minimal evidence of the structural features - <i>1 component evident</i> - of the appropriate text type.	Some evidence of the structural features - <i>2 components evident</i> - of the appropriate text type.	Substantial evidence of the structural features - <i>all components evident but there may be some lapses</i> - of the appropriate text type.	Coherent and controlled use of all the appropriate structural features of the text type.
	0	0.25	0.5	0.75	1
	Level of response is well below syllabus expectation	Level of response is below syllabus expectation	Level of response is equivalent to syllabus expectation	Level of response is above syllabus expectation	Level of response is well above syllabus expectation