

ORANGE HIGH SCHOOL



ASSESSMENT TASK NOTIFICATION

Subject	Task 2 - Science
Year	10 (ROSA)
Weighting	30%
Teacher	M. Nicholson, J. Mansur, J. Percival, E. Ruwona, B. Johnston, G. Loud, M. Boardman and M, Williams
Head Teacher	J. Huggett
Date given	Week 2B, Term 3
Date and school week	Week 5A, Term 3

Assessment Outline – Depth Study Report

This task requires you to conduct a Depth Study of a topic area of interest in science. It is in an area of your choosing and should demonstrate an extensive depth of knowledge of the topic you select.

Your Depth Study must be based on **one** of the four major disciplines of science:

- Physics
- Chemistry
- Biology
- Earth and Environmental Science (including Marine studies)

This depth study will be presented as a report. Sections of the report and descriptions will be provided to you, as well as a marking criteria. You must use secondary sourced research to find information related to your chosen topic and reference all sources of information that you use. This will need to be submitted on your Google Classroom, unless otherwise stated by your classroom teacher. For students who would like a scaffold or additional ideas, your classroom teacher can supply this on your Google Classroom.

Non-completion of Task:

If you know you are going to be away on the day that the task is due, you must make alternative arrangements with your classroom teacher. If you are away on the day of the examination, you must catch up with your classroom teacher on the first day you return to make alternate arrangements to catch up on this task.

Failure to follow the above procedures may result in a zero award.

Outcomes Assessed

A student:

SC5-4WS Develops questions or hypotheses to be investigated scientifically

SC5-7WS Processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions

SC5-8WS Applies scientific understanding and critical thinking skills to suggest possible solutions to identified problems

SC5-9WS Presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language, conventions and representations

Depth Study Report Writing Scaffold:

To write your formal depth study report you must include the following:

Formal Title – A statement that is specific and informs the reader of the depth study that was conducted.

Abstract – A summary version of your final report, usually only one paragraph in length. An abstract should have the following information:

- **Introduction.** This is where you describe the purpose of the depth study with reference to background research surrounding the topic being investigated.
- **Procedures.** What information was gained? How was the area of research developed? How can the research be applied? What are the future directions of your research?
- **Conclusions.** State what the depth study contributes to the area you researched.

Scientific Research Question – A question that specifically states what area you are researching

Literature Review – A literature review is a critical account of what has been published on a topic by accredited researchers. It should provide a clear statement of the topic area (scope), a range of research on the topic, provide an indication of what further research is necessary and identify areas of controversy in the literature. Reviewing the literature requires four stages:

1. Problem formulation - Which topic is being examined and why? What aspects will be included/excluded? Define your scope.
2. Literature search - Identifying relevant research
3. Critical analysis – Criticise the experts; identify conflicting evidence, assumptions, errors and misconceptions
4. Evaluation – which authors are most convincing and provide the most significant scientific contribution? Have I conducted a fair and objective literature review?

History/development of the idea – Information into how our understanding of your chosen area of research has been developed. This should include:

- Scientists involved in the development of this area of research
- A timeline of key findings/developments in our understanding
- An explanation of any technologies that helped us to improve our understanding of your area of research over time

Current application(s) of idea – Information into our current understanding and/or applications of your chosen area of research. This should include:

- Current research that is being conducted on your area of research
- What our understanding of your area of research currently is
- Any applications of your area of research to modern life
- Any barriers that are currently preventing the implementation of your area of research

Future applications of the idea – Information into any future research or applications that could be relevant to your area of research. This should include:

- New investigations/research that could be conducted to improve our understanding of your area of research
- Areas where your research could potentially be used to benefit society
- Ways that the current barriers holding back your area of research could be overcome

Conclusion – A paragraph summarising the main information of the depth study. A concluding paragraph should refer to the key information from the report, and the consequences/implications of this. Your conclusion may identify an area of potential future research based on your depth study. Your conclusion should always be based on evidence and refer directly to information you collected throughout your depth study in relation to your scientific question.

Reference list – This is where you include any references that you used/referred to in your investigation. You should try to use references in your background information section and in your discussion. Please see attached additional information on how to reference using the APA style.

Online reference generator: <https://www.mybib.com/tools/apa-citation-generator>

Bibliography Scaffold:

BOOKS				
Author(s)	Date of publication in brackets	Title of book in italics	Name of publisher	
<u>Example:</u> Keay, J.	(2000).	<i>The Great Arc.</i>	Harper Collins.	
WEBSITES				
Author	Date published if available	Title of Article	Title of website in italics	From URL
	If no date available write (n.d.)			
<u>Example:</u> Landsberger, J.	(n.d.)	Citing Websites.	<i>In Study Guides and Strategies.</i>	http://www.studygs.net/citation.htm .
MAGAZINES				
Author	Date	Title of Article	Name of Magazine	Volume, issue, pages
<u>Example:</u> Tumulty, K	(2006, April).	Should they stay or should they go?	<i>Time</i>	167(15), 3-40.
PERSONAL CONVERSATIONS AND EMAILS				
Person's name	Date	How you know them	Nature of communication	
<u>Example:</u> Mr B. Rock	12/7/16	Geologist and uncle	email	
VIDEOS, DVDS, TV SHOWS ETC				
Producer and writer / director or for youtube the person who uploaded video	Date	Title and type of resource	Country and company producing video / or the URL	
<u>Example:</u> Fothergill, A. (producer), Attenborough, D. (narrator).	(2005)	The Blue Planet – Coral Seas [DVD]	UK, BBC.	

Marking Rubric:

Section	Extensive A	Thorough B	Sound C	Basic D	Limited E	Mark
Title			Relevant title with scientific language 2		Somewhat relevant title 1	SC5-4WS /2
Abstract	Extensive summary of the depth study given, including: - Purpose of the depth study - Information collected - Summary of development of research - An application of the area of research - A future direction for the research 5	Thorough summary of the depth study given, including 4 of the previous criteria 4	Sound summary of the depth study given, including any 3 of the previous criteria 3	Basic summary of the depth study including, with at least one area addressed briefly 2	Summary of depth study is attempted 1	SC5-9WS /5
Scientific Research Question	Relevant question that addresses a specific area of research using scientific language 3		Somewhat relevant question that addresses an appropriate area of research 2		Research question attempted, may not be relevant 1	SC5-4WS /3
Literature Review	Extensive research into the topic has been conducted, with a clear explanation of the topic. Detailed and sophisticated discussion of the critical analysis of the evidence and a satisfactory evaluation of the review. 5	Thorough research into the topic has been conducted, with an explanation of the topic. Sophisticated discussion of the critical analysis of the evidence and a satisfactory evaluation of the review. 4	Sound research into the topic has been conducted. Satisfactory discussion of the critical analysis of the evidence and a satisfactory evaluation of the review. 3	Basic research into the topic has been conducted. Satisfactory evaluation of the review. 2	Limited attempt. Some points noted. 1	SC5-7WS
History/ Development	Extensive discussion about: - Scientists involved in the development of the area of research - A timeline of key findings/developments in our understanding - An explanation of any technologies that helped us to improve our understanding of the area of research over time 5	Thorough discussion of the history/development of the research, including 3 of the previous criteria 4	Satisfactory discussion of the history/development of the research, including 3 of the previous criteria 3	Basic discussion of the history/development of the research, including 3 of the previous criteria 2	Limited discussion of the history/development of the research, including 3 of the previous criteria 1	
Present Understanding	Extensive discussion about: - Current research that is being conducted on the area of research - The understanding of where the area of research is at currently - Any applications of the area of research to modern life - Any barriers that are currently preventing the implementation of the area of research 5	Thorough discussion of the present understanding of the research, including 4 of the previous criteria 4	Satisfactory discussion of the present understanding of the research, including 4 of the previous criteria 3	Basic discussion of the present understanding of the research, including 4 of the previous criteria 2	Limited discussion of the present understanding of the research, including 4 of the previous criteria 1	SC5-8WS /15
Future Applications	Extensive discussion about: - New investigations/research that could be conducted to improve our understanding of the research. - Areas where the research could potentially be used to benefit society - Ways that the current barriers holding back the area of research could be overcome 5	Thorough discussion of the future applications, including 3 of the previous criteria 4	Sound discussion of the future applications, including 3 of the previous criteria 3	Basic discussion of the future applications, including 3 of the previous criteria 2	Limited discussion of the future applications, including 3 of the previous criteria 1	SC5-8WS /5

Conclusion	Extensive summary statement of the main findings from the investigation. Detailed explanation of the limitations and links to possible future research. Scientific terms used and at an extensive level. 5	Thorough summary statement of the main findings from the investigation. Satisfactory explanation of the limitations and links to possible future research. Scientific terms used. 4	Sound summary statement of the main findings from the investigation. Satisfactory explanation that links to possible future research. Scientific terms used. 3	Basic summary statement of the main findings from the investigation. Attempted use of scientific terms. 2	Simple conclusion written. 1	SC5-7WS /5
Reference List/Presentation	Correctly formatted reference list included with at least 10 sources of information Report presentation is neat, minimal grammatical errors and correct sub-headings used Scientific language consistently used 5	Correctly formatted reference list included with over 5 sources of information Report presentation is neat, some grammatical errors and correct sub-headings used Scientific language mostly used 4	Reference list included with at least 5 sources of information Report presentation is neat, grammatical errors may be present and sub-headings mostly used Scientific language is somewhat present 3	Reference list included with more than 1 source of information Report presentation is mostly neat, grammatical errors present and some sub-headings used A scientific term is used in the report 2	Reference list is attempted Report is attempted 1	SC5-9WS /5

Outcome	SC5-4WS	SC5-7WS	SC5-8WS	SC5-9WS	Total
Mark	/5	/20	/5	/10	/40

Feedback: