



ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Chemistry
Year	11 (Preliminary)
Task	Number 2 (Depth Study Portfolio and Digital presentation)
Weighting	30%
Teacher	Mr. Ruwona
Head Teacher	Ms. Huggett
Date given	Tuesday the 18 th of July 2023 – Week 1A Term 3
Date and school week	Tuesday the 22nd of August 2023 – Week 6B Term 3 Part A: Report due to the Google Classroom by 11.59 pm Part B: Digital presentation link submitted via Google Classroom by 11.59 pm (must be set to public before submission)

Assessment Outline

PART 1 – Report

- To complete this task, you are required to plan, perform and conduct both a **first-hand and second-hand investigation** into the applications and use of concentrations in Chemistry.
- Students will be required to analyse and interpret the information that they have collected.
- The report must be electronically submitted on Google Classroom by 11.59 pm (**Tuesday 22/08/23**).

PART 2 – Digital Presentation

- Students will need to convert their report into a digital visual presentation summary (students are not required to add audio).
- The digital presentation (must be a public link) must be electronically submitted via Google Classroom by 11.59 pm (must be set to public before submission - **Tuesday 22/08/23**).

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

CH11 – 1 Develops and evaluates questions and hypotheses for scientific investigation.

CH11 – 5 Analyses and evaluates primary and secondary data and information.

CH11 – 6 Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes.

CH11 – 7 Communicates scientific understanding using suitable language and terminology for a specific audience or purpose.

CH11 – 9 Describes, applies and quantitatively analyses the mole concept and stoichiometric relationships.

Task 2: Depth Study Investigation Task

As part of the Preliminary Chemistry course, students are required to complete an investigation involving a Depth Study conducted during the course. The topics involved in the Preliminary depth study are associated with the *mole concept, concentration and molarity*.

The Task: Students are to conduct an in-depth study on the applications and use of concentrations in Chemistry. This study will be completed as both a ***primary and secondary source investigation***. The findings from these investigations are to be presented in the form of a *scientific report* and a *digital presentation*.

Outcomes Assessed: This task will evaluate a student's ability in the course outcomes listed below.

Working Scientific Skills:

CH11 – 1 Develops and evaluates questions and hypotheses for scientific investigation.

CH11 – 5 Analyses and evaluates primary and secondary data and information.

CH11 – 6 Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes.

CH11 – 7 Communicates scientific understanding using suitable language and terminology for a specific audience or purpose.

Content:

CH11 – 9 Describes, applies and quantitatively analyses the mole concept and stoichiometric relationships.

General Information:

Due date: Tuesday 22nd of August 2023.

Length: The report produced for this assignment should not exceed **5** pages.

Format: The format should include appropriate scientific report styles, as outlined on the next page. The use of appropriate communication styles in the presentation of the report is at the discretion of the student, however, the information presented should be clear, and with appropriate scientific terminology. The digital presentation should be a summary of the report and include visuals.

Research guide:

1. The research area which you will focus on for this task is on:

Applications and Use of Concentrations

(CH11 – 9 Describes, applies and quantitatively analyses the mole concept and stoichiometric relationships)

To support their research, students need to plan and conduct a simple practical demonstration of a concept of their choice (e.g., *standard solutions, dilutions, titrations, etc*) and collect data (if possible). Their planning and data analysis may include calculations and balanced chemical equations.

2. Conduct research on the study area, remember that this is a Chemistry Task, so you need to make sure your research focuses on the chemistry involved in that study area. Use the guide below to help with your research, this is only a starting point:

- Create some questions to assist in developing an understanding of the material being investigated.
- Create some questions concerning the application and use of concentrations in Chemistry.
- Analyse how this study area has changed over the last 50 years.
- Include balanced chemical equations with states and/or calculations to demonstrate your deep understanding of the concept.
- Describe processes and problems associated with this study topic area.
- Must show critical planning in the form clear presentation and following a logical sequence.
- Include images, graphs and/or other visual representations to help demonstrate a deep understanding of your chosen topic area.
- Uses appropriate styles to present scientific information (report and digital presentation).
- Report shows clearly defined sections.
- Appropriate scientific terminology is used throughout the report.
- Bibliography of information shows diverse use of a range of sources.
- Referenced material is recorded using the correct styles.
- Information references throughout the report show correct annotation.
- Digital presentation shows a deep understanding of the material being presented.

Report structure:

1. Abstract: Summary of the overall project, completed after you have finished the report (approx. 1 -2 paragraphs)

2. Introduction: Gives background knowledge about the topic area (approx. 3 – 6 paragraphs)

3. Literature review: Analyses scientific articles from Google Scholar in relation to the chosen topic area. (approx. 2 – 6 paragraphs)

4. Scientific question: The question specifically identifies the concept that you are exploring and planning to demonstrate experimentally. (approx. 1 – 3 lines)

5. Scientific topic explanation: Gives a detailed explanation of your chosen experimental demonstration. Calculations and balanced chemical equations may be included in this explanation. (approx. 2 – 4 paragraphs)

6. History of the concept: Gives a detailed history of how the understanding and application of concentrations has developed over the last 50 years. (approx. 2 – 4 paragraphs)

7. Judgement statement: Gives a clear judgement statement on the current and potential future benefits of concentration and its applications to society. (approx. 1 paragraph)

8. Reference list and appendix: Detailed list of all sources used in the report (you may include diagrams in your appendix) and the digital presentation (*none of these are included in the page limit*).

Digital presentation structure:

- This should be a visually appealing digital presentation with images added to it.
- You must summarise each section of the report and add it to the presentation.
- Remember this is a summary of your report that gives the audience a clear understanding of your research.

Task section	Extensive (A)	Thorough (B)	Sound (C)	Basic (D)	Elementary (E)	Total:
	<ul style="list-style-type: none"> - Discusses the direction and implications for society in the use of this science. Gives a relevant example. - Includes correct chemical equations - Approximately 2 – 4 paragraphs in length <p style="text-align: center;">4 marks</p>	<ul style="list-style-type: none"> - Discusses the direction and implications for society in the use of this science. Gives a relevant example. - Includes correct chemical equations - Approximately 2 – 4 paragraphs in length <p style="text-align: center;">3 marks</p>	<ul style="list-style-type: none"> - Discusses the direction and implications for society in the use of this science. - Includes some correct chemical equations - Approximately 3 paragraphs <p style="text-align: center;">2 marks</p>			/4
7. Judgement statement	<ul style="list-style-type: none"> - Gives a clear and concise judgement statement on the current and potential future benefit of the study area on society - Approximately 1 paragraph in length <p style="text-align: center;">3 marks</p>		<ul style="list-style-type: none"> - Gives a satisfactory judgement statement on the current and potential future benefit of the study area on society - Approximately 1 paragraph in length <p style="text-align: center;">2 marks</p>		<ul style="list-style-type: none"> - Gives a basic judgement statement <p style="text-align: center;">1 mark</p>	CH11-7 /3
8. Reference list, appendix and overall report structure	<ul style="list-style-type: none"> - Reference list present and correct (12 or more sources used) - Minimal spelling, punctuation and grammatical errors (2-3) - Images are included in the appendix - Follows report format extensively - Report does not exceed the 5-page limit (excluding reference list) <p style="text-align: center;">5 marks</p>	<ul style="list-style-type: none"> - Reference list present and correct (11 to 9 used) - Minimal spelling, punctuation and grammatical errors (4-6) - Images are included in the appendix - Follows report format thoroughly - Report does not exceed the 5-page limit (excluding reference list) <p style="text-align: center;">4 marks</p>	<ul style="list-style-type: none"> - Reference list present and correct (6 to 8 used) - Minimal spelling, punctuation and grammatical errors (7-12) - Follows report format satisfactorily, images in appendix - Report does not exceed the 5-page limit (excluding reference list) <p style="text-align: center;">3 marks</p>	<ul style="list-style-type: none"> - Reference list present (6 to 8 used) - Minimal spelling, punctuation and grammatical errors (13-18) - Attempted to follow the report format - Images are included in the appendix <p style="text-align: center;">2 marks</p>	<ul style="list-style-type: none"> - No Reference list present. - More than 13 errors. - Images are included in the appendix <p style="text-align: center;">1 mark</p>	CH11-7 /5
Digital presentation	<ul style="list-style-type: none"> - Detailed summary of sections 1 to 8 - Is a digital presentation - Extremely visually appealing - Clearly articulates students deep understanding of the focus area to the audience - Correct use of chemical equations - High level use of images <p style="text-align: center;">10 – 9 marks</p>	<ul style="list-style-type: none"> - General summary of sections 1 to 8 - Is a digital presentation - Satisfactorily visually appealing - Clearly articulates students satisfactory understanding of the focus area to the audience - Correct use of chemical equations - High level use of images <p style="text-align: center;">8 – 7 marks</p>	<ul style="list-style-type: none"> - General summary of sections 1 to 8 and is a digital presentation - Satisfactorily visually appealing - Satisfactory understanding of the focus area to the audience demonstrated - Chemical equations present - Satisfactory use of images <p style="text-align: center;">6 – 5 marks</p>	<ul style="list-style-type: none"> - Basic summary of sections 1 to 8 and is a digital presentation - Basic understanding of the focus area to the audience demonstrated - Chemical equations attempted - Satisfactory use of images <p style="text-align: center;">4 – 3 marks</p>	<ul style="list-style-type: none"> - Basic summary of sections 1 to 8 and is a digital presentation - Basic understanding of the focus area to the audience demonstrated - Some images used <p style="text-align: center;">2 – 1 mark</p>	CH11-9 /10
					Total Marks:	___/50

Outcomes					
CH11 – 1 (Section 1)	CH11 – 5 (Section 2)	CH11 – 6 (Sections 4 & 5)	CH11 – 7 (Sections 6, 7 & 8)	CH11 – 9 (Sections 3 & Digital Presentation)	
= / 5	= / 5	= / 13	= / 12	= / 15	
Total Grade	A 50 – 45	B 44 – 39	C 38 – 15	D 14 – 6	E 5 – 0

Teacher Feedback:
