

Coonabarabran High School

TAKE HOME ASSESSMENT NOTIFICATION



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|-----------------|-------------------------------------|---------------------------|----------------|
| Subject: | Chemistry | Weighting: | 30% |
| Teacher: | Ms Christoff | Notification date: | 2/6/25 |
| Topic: | Module 6 Acid/Base Reactions | Due date: | 27/6/25 |

Outcomes to be assessed:

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This assessment task will allow you to show evidence of having achieved the following course outcomes:

CH11/12-1 develops and evaluates questions and hypotheses for scientific investigation

CH11/12-2 designs and evaluates investigations in order to obtain primary and secondary data and information

CH 11/12-3 conducts investigations to collect valid and reliable primary and secondary data and information

CH11/12-5 analyses and evaluates primary and secondary data and information

CH11/12-6 solves scientific problems using primary and secondary data, critical thinking skills and scientific processes

CH11/12-7 communicates scientific understanding using suitable language and terminology for a specific audience or purpose

CH13 describes, explains and quantitatively analyses acids and bases using contemporary models

You will be assessed on how well you:

- Develop a hypothesis.
- Design and conduct an experiment that collects valid and reliable data that tests the hypothesis.
- Analyse data from your experiment and use research from secondary sources to explain the outcomes of your experiment.
- Communicate your chemical knowledge and understanding using the scientific report format.

Task description:

A depth study is any type of investigation/activity that allows the further development of one or more concepts found within or inspired by the syllabus. Depth studies provide opportunities for students to pursue their interests in chemistry, acquire a depth of understanding, and take responsibility for their own learning.

Your task is to carry out a depth study on acid/base reactions. Your investigation must include both research from secondary sources and a first-hand investigation. You will submit a scientific report on your investigation.

Submission:

Typed report written in the scientific report format

Feedback (during and after task completion):

You will be given 10 periods of class time to work on this task. During this time you will be given feedback on your progress.

You can submit the final draft of your scientific report for feedback prior to submission of your final work. **Drafts are due 4 pm Wednesday 25 June**

The marking guidelines in the supporting documentation will be used to provide feedback on how well you have achieved the outcomes being assessed.

NOTE: This is a compulsory assessment task. You are to make a genuine attempt at the task, and all protocols relating to plagiarism, collusion, and malpractice apply. You are required to submit on the above stated date. Failing to do so may result in the awarding of the grade of 0%. If students are unable to submit by the due date, they must provide a doctor's certificate and/or an Illness & Misadventure Form. All assessment submission protocols, found in the Assessment Handbook, will be followed.

| Criteria: | Marks: |
|--|--------|
| <ul style="list-style-type: none"> Identifies and proposes valid scientific hypotheses, asks questions and makes evidence-based predictions. Modifies questions and hypotheses to reflect new evidence. | 10 |
| <ul style="list-style-type: none"> Thoroughly assesses risks, considers ethical issues and selects appropriate materials and technologies when designing and planning and investigation. Justifies and evaluates the use of variables and experimental controls to ensure that a valid procedure is developed that allows for the reliable collection of data. Evaluates and modifies an investigation in response to new evidence. | 15 |
| <ul style="list-style-type: none"> Uses critical thinking skills to evaluate trends, patterns and relationships to draw evidence-based scientific conclusions Assesses the relevance, accuracy, validity and reliability of primary and secondary data Suggests and justifies improvements to investigations | 15 |
| <ul style="list-style-type: none"> Correctly uses the scientific report format to logically and coherently communicate investigation. Extensive use of scientific notations, nomenclature and scientific language. Effectively communicates complex ideas and information. Uses first-hand data and secondary sources to construct evidence-based arguments that are logical and coherent. | 15 |
| <ul style="list-style-type: none"> Applies extensive knowledge and understanding of scientific models, theories and laws to discuss investigation. | 15 |

Depth study timeline:

| Lessons (10 periods) | | | | | | | | | | Home |
|-----------------------------------|-----------------------|--------------------|---------------------|---|-----------------------|---------------------|---------------------|----------------------|----------------------|--|
| Wk 7 Mon 10/6 | Wk 7 Thurs 12/6 | Wk8 Mon 16/6 | Wk8 Tues 17/6 | Wk8 Weds 18/6 | Wk 8 Thurs 19/6 | Wk 8 Fri 20/6 | Wk 9 Mon 23/6 | Wk 9 Tues 24/6 | Wk 9 Tues 26/6 | |
| Science Lab139 (and chromebooks) | | | | | | | | | | |
| Identify question | | | | | | | | | | |
| Research information → hypothesis | | | | | | | | | | Report Due Friday 27 th June |
| | | Design experiment | | | | | | | | |
| | | | | Trial and modify experiment Conduct experiment, record results | | | | | | |
| | | | | | | Anaylse results | | | | |
| Write investigation report | | | | | | | | | | |
| Compile references | | | | | | | | | | |