



Condobolin High School

Notification of an Assessment Task



Name and Type of Task: Practical Skills Test

Subject: Year 9 Science

Task Number: 1

**Date Issued: Term 1 Week 7.
Thursday, 14th March 2024 Period 4.**

**Date Due: Term 1 Week 9.
Thursday, 28th March 2024 Period 4**

Total Marks: 30

Weighting: 30%

**Class Teacher/s: Adam Quinn,
Benjamin Geer**

Head Teachers: Judith Davis

Submission Instructions: Students are to complete the practical skills test in their Science class
Period 4 on Thursday, 28th March 2024

Task Context:

In this unit, you used your scientific skills to develop an understanding of the periodic table. You have learned about the properties of elements by conducting practical investigations and have represented the structure of atoms using models.

In this task, you will apply your knowledge to complete practical activities and answer scientific questions to demonstrate your ability to work scientifically and your understanding of the models, theories and laws about matter.

Course Outcomes:

SC5-16CW	explains how models, theories and laws about matter have been refined as new scientific evidence becomes available
SC5-4WS	develops questions or hypotheses to be investigated scientifically
SC5-6WS	undertakes first-hand investigations to collect valid and reliable data and information, individually and collaboratively
SC5-7WS	processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions

Task Description:

Total Marks: 30

A scientist has been exploring how different metals react when placed in acid. Although they've already conducted some experiments and plotted the results on a graph, there's a mix-up with the samples. Now, they have an unidentified metal sample that needs to be tested to see which data on the graph it matches.

In this task, you'll dive into the role of a scientist to conduct and analyse a practical investigation based on the scenario above. You'll collaborate with your groupmates for the initial stages and then focus on your own individual analysis.

Group Work Phase:

- **Conducting the Experiment:** You will be assigned a partner to conduct your experiment with. A method will be provided. Follow all instructions safely.
- **Collecting Data:** In your group, complete the table provided using the instructions in your method to help you in your data collection.

Individual Phase:

- **Data Analysis:** Review the data you've gathered to spot any trends or patterns that could help identify the unknown metal.
- **Periodic Table Insights:** Answer questions related to the periodic table, focusing on the connection between the trends you've noticed and the concepts you've learned in class.

Criteria for Assessing Learning:

You will be assessed on your ability to:

- Undertake a first-hand investigation to collect reliable and valid data
- Process and analyse data from a first-hand investigation to make conclusions
- Develop hypotheses suitable for scientific investigations.
- Explain trends in the periodic table using models.

Key Verbs:

Undertake

do or begin to do something

Develop

elaborate or expand in detail

Explain

Relate cause and effect; make the relationships between things evident; provide why and/or how

Collect

gather together or be gathered together

Analyse

Identify components and the relationship between them; draw out and relate implications

Process

a series of actions or steps taken in order to achieve a task

Description	Grade
<ul style="list-style-type: none"> ● Performs scientific investigations effectively and safely to collect reliable and valid data. ● Analyses data from investigations to create accurate and detailed graphs, and formulate well-reasoned conclusions. ● Develops well-reasoned predictions using extensive scientific knowledge for scientific investigation. ● Applies extensive knowledge of the periodic table to create accurate models of matter. 	<p>A 27-30</p>
<ul style="list-style-type: none"> ● Performs scientific investigations effectively to collect mostly reliable and valid data with minor inconsistencies. ● Analyses data from investigations to create generally accurate graphs and formulates conclusions that are mostly well-reasoned. ● Develops mostly well-reasoned predictions using comprehensive scientific knowledge for scientific investigation. ● Applies a comprehensive knowledge of the periodic table to create mostly accurate models of matter with minimal errors. 	<p>B 21-26</p>
<ul style="list-style-type: none"> ● Performs scientific investigations to collect some reliable and valid data. ● Extracts data from investigations create graphs with some missing features and make some conclusions. ● Develops predictions using some scientific knowledge for scientific investigation. ● Applies some knowledge of the periodic table to create a model of matter with some errors. 	<p>C 12-20</p>
<ul style="list-style-type: none"> ● Performs scientific investigations with limited assistance, collecting some reliable and valid data. ● Extracts some data from investigations to create graphs and make basic conclusions. ● Develops predictions using minimal scientific knowledge for scientific investigation. ● Applies minimal knowledge of the periodic table to outline the structure of matter. 	<p>D 6-11</p>
<ul style="list-style-type: none"> ● Participates in scientific investigations with assistance, collecting limited data. ● Explores, with assistance, limited data from investigations to make conclusions. ● Develops predictions for scientific situations with assistance. ● Draws atomic models with assistance. 	<p>E 0-5</p>