

CHEMISTRY CHO1O21Y1B

TOPIC RESOURCE INFORMATION

ACHIEVEMENT STANDARD 90931 (VERSION 3) CHEMISTRY 1.2

Demonstrate understanding of the chemistry in a technological application

Level 1, Internal

2 credits

B. CHEMICALS IN THE HOME

Achievement	Achievement with Merit	Achievement with Excellence
<p>The student submits a report that:</p> <ul style="list-style-type: none"> • Describes what acids, bases and salts are and how they relate to the pH scale. • Describes the uses of each chemical. • Briefly describes the manufacture of each given chemical. • Makes some links between their physical and chemical properties and their use. • Includes at least three relevant chemical equations to support their understanding of the chemistry. • Uses typical chemistry vocabulary, symbols, conventions and equations. 	<p>The student submits a report that:</p> <ul style="list-style-type: none"> • Explains what acids, bases and salts are and how they relate to the pH scale. • Describes the manufacture and use of each given chemical. • Explains how their physical and/or chemical properties apply to their use. • Includes relevant symbol chemical equations showing the chemistry of their use. • Uses typical chemistry vocabulary, symbols, conventions and equations. 	<p>The student submits a report that:</p> <ul style="list-style-type: none"> • Explains what acids, bases and salts are and how they relate to the pH scale • Elaborates in detail how their physical and/or chemical properties apply to their use. • Includes relevant symbol chemical equations showing the chemistry of their manufacture and of their use • Uses typical chemistry vocabulary, symbols, conventions and equations.

ASSESSMENT TIPS

In order to achieve this standard, your presentation must be in your own words and show your understanding of level 1 chemistry.

TIP 1

If you have difficulty in transforming the text given in the links into your own words, then it is useful to ask yourself questions, such as those listed below. You can get friend or family member to ask you the questions and then record your answers. Transcribe your answers and then weave them into your report.

Please note that these questions are only **some** of the questions you could ask yourself, so don't limit your report to these only!

Acids, bases and salts (SCO1052 is useful)

1. What is an acid?
2. What is a base?
3. What is a salt?
4. How do we measure acidity or basicity?

Application: Epsom salts (SCO1052 and SCO1053 are useful)

1. What is the formula for Epsom salts?
2. How is Epsom salts manufactured?
3. How could you make Epsom salts in the laboratory?
4. How is Epsom salts used in/around the home?
5. Is Epsom salts soluble in water?
6. Have I written my equations using correct chemical language (e.g. using subscripts)

Application: Baking powder (SCO1052 and SCO1053 are useful)

1. Is baking powder an acid, base and/or salt?
2. How is baking powder used in/around the home?
3. What is the difference between single action and double action baking powder?
4. How is baking powder manufactured?
5. Can I explain the chemistry of how baking powder works?
6. Have I used chemical equations to support my explanations?

TIP 2

When you read through the links or watch the videos given on *My Te Kura* or in the task, make notes using key words or phrases. When you write your report, use these key words rather than the text given in the links.

TOPIC RESOURCES

CHEMICALS IN THE HOME

Your first source is the modules you should have completed – SCO1051, SCO1052 and SCO1053.

EXTRA SOURCES FOR MORE DETAIL

ACIDS, BASES AND SALTS

www.chem4kids.com/files/react_acidbase2.html

BAKING POWDER

<http://chemistry.about.com/od/foodcookingchemistry/a/How-Baking-Powder-Works.htm>

<http://recipes.howstuffworks.com/tools-and-techniques/baking-powder.htm>

https://en.wikipedia.org/wiki/Baking_powder

www.rsc.org/learn-chemistry/resource/res00000812/kitchen-chemistry-the-chemistry-of-baking-powder?cmpid=CMPO0000904 (Slightly more advanced chemistry)

EPSOM SALTS

www.wisegeek.com/what-is-magnesium-sulfate.htm

https://en.wikipedia.org/wiki/Magnesium_sulfate

Additional sources may be used and must be quoted (full web link) in the bibliography to verify the source.