**LEVEL 1 TECHNOLOGY 91049 (CREDITS: 4)**

**DEMONSTRATE UNDERSTANDING OF HOW MATERIALS ENABLE TECHNOLOGICAL PRODUCTS TO FUNCTION**

**STUDENT INTRODUCTION**

Technological products are made of materials. Materials have a **composition** and a **structure** that determine the **performance properties** of material. Materials can be **manipulated** in various ways depending on their composition and structure. The **manipulation of a material** can **change** the material’s **performance properties** and allows the material to be used in **different ways**. Technologists who know about material composition and structure are able to select and manipulate materials to make particular products function.

You will **produce a** **report** on how materials enable technological products to function and how the **interaction** between the **composition**, **structure** and **manipulation** of these materials make the **product function.**

**It is useful to remember that the report is not about the product, it is about how materials make the product work.**

Your report will be marked externally against the achievement standard criteria for Technology 91049 (1.6). It will be assessed holistically on how well it demonstrates your understanding of how materials enable technological products to function.

**MERINGUES**

**FOR THIS STANDARD YOU NEED TO WRITE A REPORT THAT SHOWS YOUR UNDERSTANDING OF**:

* the composition and structure of materials used to make meringues
* the performance properties of the materials used to make meringues
* how composition and structure impact upon the way the materials used to make meringues can be manipulated
* how the materials used to make meringues and the way they have been manipulated allow the product to function
* how composition and structure determine the performance properties of materials
* how composition and structure determine how the materials can be manipulated
* how the interaction between the composition, structure and manipulation of materials allow the product (meringues) to function.

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| Definitions |

The following definitions might be useful for you when you are writing your report:

* **Materials** refer to any substance, raw or processed, used in the creation of a technological product. All materials have inherent qualities that combine to provide the material with performance properties.
* **Impact** means to promote or restrict.
* **Performance properties**: include but are not limited to: warmth, strength, taste, flexibility, crease resistance, malleability, drape, form, durability, absorbency, colour, texture, appearance, sheen, style. Performance properties can be altered through working (manipulating) the materials.
* **Manipulation** is the various ways a material can be worked, (eg, shaped, joined, combined, heated, finished) so that the material can improve the function of a technological product.