



RQF LEVEL 5



TRADE: FOOD PROCESSING

MODULE CODE: FOPCT502

TEACHER'S GUIDE

Module name: Cakes and tortes making

Table of content

Acronyms

RP: Rwanda Polytechnic

RTB: Rwanda TVET Board

RQF: Rwanda Qualification Framework

TVET: Technical and Vocational Education and Training

TSS: Technical Secondary School

FOPCT502: Food Processing Cakes and tortes making, Curriculum for Level five, version 2

L.U: Learning unit

L.O: Learning outcome

I.C: Indicative content

INTRODUCTION

Dear Trainers,

Rwanda TVET Board is pleased to present the Trainer guide of cakes and tortes making for level five in Food processing, Sector of Agriculture and Food processing. This book serves as a guide to competence-based teaching and learning to ensure consistency and coherence in the learning of cakes and tortes making content. The Rwandan educational philosophy is to ensure that learners achieve full potential at every level of education, which will prepare them to be well integrated in society and exploit employment opportunities.

Specifically, the TVET curriculum was reviewed to train quality trainers who will confidently and efficiently implement the Competence Based Curriculum in Technical Secondary School education. The rationale of the changes is to ensure that TSS graduates are qualified for job opportunities and further studies in Higher Education in different programs under education career advancement.

The book provides active facilitation techniques that engage trainers-trainees to develop competences. In view of this, your role is to:

- Plan your sessions and prepare appropriate training materials.
- Organize group discussions for trainees considering the importance of social constructivism suggesting that learning occurs more effectively when the trainees work collaboratively with more knowledgeable and experienced people.
- Engage trainees through active learning methods such as inquiry methods, group discussions, research, investigative activities and group and individual work activities.
- Provide supervised opportunities for trainers to develop different competences by giving tasks which enhance critical thinking, problem solving, research, creativity and innovation, communication and cooperation.
- Support and facilitate the learning process by valuing trainees' contributions in the class activities.
- Guide trainees towards the harmonization of their findings.
- Encourage individual, peer and group evaluation of the work done in the classroom and use appropriate competency-based assessment approaches and methods.

Module Code and Title: FOPCT502 CAKES AND TORTES MAKING

Learning Units:

1. Prepare dough for cakes and tortes
2. Process dough into cakes and tortes
3. Decorate cakes and tortes

Learning Unit 1: Prepare dough for cakes and tortes

Picture/s reflecting the Learning unit 1



STRUCTURE OF LEARNING UNIT

Learning outcomes:

- 1.1** Identify all ingredients for cakes and tortes making.
- 1.2** Measure and weigh ingredients for cakes and tortes.
- 1.3** Mix ingredients for cake and tortes.

- Learning outcome 1.1 Identify all ingredients for cakes and torts making



Duration: 7 hrs



- Learning outcome 1 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify correctly types of cakes in cakes and tortes making
2. Select clearly the ingredients for cakes and tortes dough making
3. Explain properly the difference between cakes and tortes



Resources

Equipment	Tools	Materials
<ul style="list-style-type: none"> - Preparation tables - Ovens - Packaging machine - Labelling machine - Dough mixer - Gas cooker - Cooling Rack 	<ul style="list-style-type: none"> - Measuring Cups (Liquid and Dry) - Spoons - Wooden Spoon(s) - Rubber Spatula/Scraper - Spatula/Metal Turner. ... - Pastry Brush. ... - Whisk. ... - Kitchen Scissors. ... - Rolling Pin - Baking sheet/pans/trays - Molds/ Tins - Digital oven thermometer - A Sifter - Ice Cream Scoops - A Stainless Steel Bench Scraper - Mixing Bowls 	<ul style="list-style-type: none"> - Flipchart - Computer - Markers - Flour - Baking leavening, - Sugar, - Water, - Fat or oil - Milk - Eggs



Advance preparation:

- . Make sure that all teaching/learning aids are available.



Indicative content 1.1.1: Types of cakes



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Types of cakes:

- Butter Cake
- Pound Cake
- Sponge Cake
- Genoise Cake
- Biscuit Cake
- Angel Food Cake
- Chiffon Cake
- Baked Flourless Cake
- Unbaked flourless cake
- Carrot cake
- Red velvet cake

Difference between cakes and tortes

- **Torte** is a rich, usually multilayered, cake that is filled with whipped cream, buttercreams, mousses, jams, or fruit.
- **Cake** is a flour confection made from flour, sugar, and other ingredients, and is usually baked.

A cake is a 'sweet baked' product usually containing flour, sugar, eggs and fat. Other typical ingredients are flavouring agents, liquids and leavening agents, such as baking powder or baking soda.

COMPARISON BETWEEN CAKES AND TORTES

	CAKES	TORTES
Ingredients	Flour, sugar, eggs, butter or fat, flavourings, baking powder, milk	Ground nuts or bread crumbs, sugar ,butter, eggs
Texture	Light and fluffy with loose moist crumb	Dense with tighter crumb
Taste	Sweet with lighter flavour	Rich and densely flavoured

Height	Tall with 4 inches	Shorter with 2-4 inches
Baking	Similar baking time and temperature	Similar baking time and temperature
Layering	Two to three layers	Three or more layers
Frosting	Butter cream or fondant	Ganache, whipped cream, jam
Flavouring /syrup	May be brushed with simple syrup to add moisture	Typically brushed with flavoured syrups or liqueurs for flavour and moisture.



Theoretical learning Activity

- ✓ Ask the trainees to identify tools and equipment used in cakes and tortes preparation



Practical learning Activity

- ✓ Trainees go to workshop and select the tools, equipment and materials for cakes and tortes making
- ✓ In group of 5 persons, trainees arrange the work place and tools and equipment according to their functionality.



Points to Remember (Take home message)

- Types of cakes
- Difference between cakes and tortes
- Equipment and tools for cakes and tortes



Indicative content 1.1.2 Ingredients for cakes and tortes.



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Main ingredients for cakes, tortes and functions

- ✓ **Butter** is added to improve the flavour, quality of the finished cake, batter becomes heavier, the cake will have a finer pore structure. and also extends shelf life.
- ✓ **Flour:** The gelatinized starch and coagulated protein provide: Body (crumb), Structural support,
Protein through coagulation and Starch through gelatinization.
- ✓ **Sugar:** Softens crumb (gluten) and egg proteins, Sweetens, gives crumb whiteness and crust color, assist in aeration, Aids to keeping qualities (attracts moisture), Affects symmetry.
- ✓ **Liquid**

When liquid is used in cakes it is usually some form of milk (liquid whole milk and/or skim milk or full cream/skim milk powder) and water. Liquid helps to bring about the binding of the dry ingredients. Affects symmetry, Increases volume, opens texture, Tenderizes. Generally, milk or water, optimum amount is used to get the right batter consistency. Too much will yield in very soft and moisture. The cake with an inadequate amount of water will provide dry and stale quickly.

- ✓ **Baking leavening:** Baking powder is a combination of two main ingredients - one alkaline (bicarbonate of soda) and one acidic (cream of tartar). Baking powder serves as leavening agent. It is any chemical or mixture of chemical which, when moistened and heated, generates gas usually (CO₂) which will aerate bread and cakes. Ideally the residual salts of the reaction should be tasteless and without odour. leavening agent is a material that causes doughs and batters to expand by releasing gases from within the mixture, resulting in porous baked goods.

Eggs: provides Structure, Nutritional value (Vit. D and Proteins), Improved eating quality, Improved keeping quality and Color. Eggs help to form the structure of a cake because of their protein content which coagulates when heated. When the whole egg or egg white is beaten it entraps air which aids in the aerating process. The lecithin' in egg yolk acts as an emulsifier of the fat in the batter. Eggs also contribute greatly to color and flavor.



Theoretical learning Activity

- ✓ Ask the trainees to describe the ingredients used to make cakes and tortes with their roles



Practical learning Activity

- ✓ Trainees go to workshop and select the ingredients for cakes and tortes



Points to Remember (Take home message)

- Main ingredients for cakes and tortes
- Functions of cakes and tortes ingredients



- Learning outcome 1.1 Formative assessment

Written assessment

True or false questions

1. A cake is a 'sweet baked' product usually containing flour, sugar, eggs and fat.
2. Baking powder in cakes plays a key role in flavour enhancement.
3. Liquids in cakes making help to bring about the binding of the dry ingredients.

Answers:

1. True
2. False
3. True



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References:

1. <https://www.epicurious.com/expert-advice/types-of-cake-glossary-article>
2. <https://www.proflowers.com/blog/difference-between-torte-and-cake>
3. <https://tastessence.com/what-is-difference-between-cake-torte>

- Learning outcome 1.2 Measure and weigh ingredients for cakes and tortes.



Duration: 6 hrs



- Learning outcome 1.2 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify correctly weighing tools and instruments used in cakes and tortes making
2. Explain appropriately the use of weighing tools and instruments used in cakes and tortes making
3. Identify properly factors to consider for determining ratios of ingredients for cakes and tortes making



Resources

Equipment	Tools	Materials
- Preparation tables	<ul style="list-style-type: none"> - Measuring Cups (Liquid and Dry) - Weighing scales - Measuring Spoons - Mixing Bowls 	<ul style="list-style-type: none"> - Flipchart - Computer - Markers - Flour - Baking leavening, - Sugar, - Water, - Fat or oil - Milk - Eggs - Soap (powder, liquid, hard)



Advance preparation:

- Make sure that all teaching/learning aids are available
- Workshop arrangement



Indicative content 1.2.1: Measuring instruments and tools



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Measuring tools and instruments in cakes and tortes and their uses:

- ✓ Kitchen scale (Digital scale)
- ✓ Measuring cups and jugs: to measure liquid ingredients
- ✓ Spatula: for frosting the cakes and spreading toppings or mixture smoothly over the cakes or torte
- ✓ Dry measuring cups: to measure dry ingredients
- ✓ Measuring spoons (tea spoons, table spoons): to measure small volumes
- ✓ Kitchen timer: to measure time
- ✓ Oven thermometer: to measure heat and/or temperature while baking



Theoretical learning Activity

- ✓ Ask the trainees to tell the measuring tools and instruments used in cakes and tortes preparation in their daily life



Practical learning Activity

- ✓ Trainees go to workshop and weigh the ingredients using weighing tools and instruments



Points to Remember (Take home message)

- Measuring tools and instruments
- Difference between digital and mechanical balance



Indicative content 1.2.2. Factors to consider for determining ratios of ingredients



Summary for the trainer related to the learning outcome (key notes using bullets such as ticks etc)

Identification of factors to consider for determining ratios of ingredients

1. **Quality or structure of the products:** it refers to how well the product satisfies customer needs, serves its purpose and meets industry standards. When evaluating the product quality, businesses consider several key factors, including whether a product solves a problem, works efficiently or suits customers' purpose
2. **Customer needs:** these are needs that motivate a customer to purchase a product or a service.

The need can be known (i.e. the customer can put it into words) or unknown, and is the ultimate factor that determines which solution the customer purchases.

Three main types of customer needs include:

- Functional needs
- Social needs and
- Emotional needs.

3. **Costs of product:** they are the costs directly incurred to create a product that is intended for sale to customers. They are directly incurred from the manufacturing process. Product costs include **direct material (DM)**, **direct labor (DL)** and **manufacturing overhead (MOH)**

- **Direct material (DM)**

Direct material costs are the costs of raw materials or parts that go directly into producing products.

- **Direct labor (DL)**

Direct labor costs are the wages, benefits, and insurance that are paid to employees who are directly involved in manufacturing and producing goods.

- **Manufacturing overhead (MOH)**

Manufacturing overhead costs include direct factory-related costs that are incurred when producing a product, such as the cost of machinery and the cost to operate the machinery.



Theoretical learning Activity

- ✓ Ask trainees to discuss about factors to consider in ratio of ingredients determination. They make groups of 5 persons.



Practical learning Activity

- ✓ Trainees, in their groups of 4 persons, perform presentation of work done in theoretical activities about factors to consider in ratio of ingredients determination



Points to Remember (Take home message)

- Factors to consider for determining ratios of ingredients



Learning outcome 1.2 Formative assessment

Written assessment

Open ended questions

1. Give any four (4) examples of measuring tools
2. Give and explain the factors to consider for determining ratios of ingredients

Answers:

1. Examples of measuring tools include:
 - Measuring spoons (tea spoon, table spoon)
 - Measuring cups
 - Measuring jug
 - Timer
 - Thermometer
 - Weighing scale (Digital and mechanical)
2. Factors to consider for determining ratios of ingredients
 - **Quality or structure of the products:** it refers to how well the product satisfies customer needs, serves its purpose and meets industry standards.
 - **Customer needs:** these are needs that motivate a customer to purchase a product or a service.
 - **Costs of product:** they are the costs directly incurred to create a product that is intended for sale to customers.



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References:

1. <https://www.kingarthurflour.com/blog/2017/04/28/cake-mixing-methods>
2. http://kasetsartjournal.ku.ac.th/kuj_files/2011/a1106211655184223.pdf
3. <https://ofbatteranddough.com/prevent-cakes-from-stickin>

Learning outcome 1.3 Mix ingredients for cake and tortes.



Duration: 7 hrs



- Learning outcome 1.3 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify correctly quality parameters of dough for cakes and tortes making
2. Explain clearly mixing techniques for cakes and tortes making
3. Apply correctly mixing parameters adjustment for cakes and tortes making



Resources

Equipment	Tools	Materials
<ul style="list-style-type: none">• Preparation tables• Dough mixer• Gas cooker	<ul style="list-style-type: none">- Measuring cups/jugs- Weighing scales- Measuring spoons- Mixing bowls- Spatula	<ul style="list-style-type: none">- Flipchart- Computer- Markers- Flour- Baking leavening,- Sugar,- Water,- Fat or oil- Milk- Eggs- Soap (powder, liquid, hard)- Electricity



Advance preparation:

- Verify the availability of all materials, tools and equipment
- Make sure that all teaching/learning aids are available
- Workshop arrangement



Indicative content 1.3.1: cakes and tortes dough mixing techniques



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Mixing techniques

1. **Creaming method:** it starts out with softened, solid fat (such as butter) at approximately 19°C (65°F). The fat is then mixed with granulated or brown sugar in an electric mixer using the paddle attachment.

This method includes the following steps:

- ✓ Cream the fat and sugar on low to medium speed until light and fluffy in the bowl of an electric mixer using the paddle attachment.
- ✓ Blend in the eggs one at a time, thoroughly blending in one before adding the next.
- ✓ Blend the liquids and dry ingredients alternately beginning and ending with the dry ingredients. The dry ingredients are added last to ensure the liquids will be absorbed. Another advantage of adding some of the flour mixture last is that less gluten will develop.

2. **Blending method: this refers to** incorporating the ingredients thoroughly into one homogenous mixture using a whisk, spoon, or spatula and mix the mixture together until it is thoroughly combined. Once the liquid is added, the dough should be mixed well, but not beaten at length for this will toughen the gluten.

- ✓ **Scale ingredients accurately.** Have all ingredients at room temperature.
- ✓ **Sift all dry ingredients into the mixing bowl.** Add the shortening and part of the liquid; mix on low speed for 7 to 8 minutes. Scrape down the sides of the bowl and the beater several times.
- ✓ **Combine the remaining liquids and lightly beaten eggs.** With the mixer running, add the mixture to the batter in three parts. After each part, turn off the machine and scrape down the bowl.

3. **Foaming method:** A foaming method is **any method in which the eggs are**

whipped or beaten to incorporate air before they are folded into the rest of the batter. Here, beaten eggs are one of the keys to success in making recipes. Whipping eggs (**whole and/or yolks only** or **whites only**) with a portion of the sugar

4. **Paste method:** It is named “**reverse creaming**” method, also referred to as the “paste” method. To use this technique, you beat softened butter directly into the dry ingredients, rather than creaming it with just sugar alone (the way you do in more common recipes). It involves the following:
- ✓ Adding fats into dry ingredients insures that flour particles are well coated with fat. This minimizes gluten formation.
 - ✓ Including a small amount of liquid while mixing the fats into the dry ingredients allows the combination to blend thoroughly. It also creates some structure in the batter.
 - ✓ The fat/flour mixing minimizes the size of air particles that are incorporated, resulting in a finer crumb.

5. Sponge method

Sponge cakes can be made in different ways.

- ✓ One way is beating egg yolks and sugar (or whole eggs and sugar) until a very thick foam-like batter is created. The batter is pale yellow in color, and falls off the beater in ribbons. Flour is then gently folded in.
- ✓ Another way whips the egg whites separately from the yolks until soft peaks form. The yolk/sugar mixture is beaten until light, flour is mixed in, and then egg whites are gently folded into that mixture.

Either way the eggs are prepared, they provide leavening and loft for the sponge cake. This method dates back to before the widespread use of baking soda or powder, when trapped air was a cake's only leavening.

The batter for sponge cake is very light, airy, and almost soup-like in consistency.

6. Gluten-free

Gluten-free cake is a bakery specialty product made with alternative flours that contain little to no gluten, typically formulated for consumers with celiac disease.

Gluten-free cakes are manufactured through the following process:

- Weighing and scaling the ingredients
- Creaming: shortening or butter is creamed with sugar
- Mixing: dry and wet ingredients are mixed separately and then added to the creamed fat. Vanilla and other essences are added
- Baking: batters deposited in baking pans are baked at 180°C (360°F) for 30 min
- Cooling



Theoretical learning Activity

- ✓ Form groups of 5 persons and ask the trainees to discuss about mixing techniques used in cakes and tortes making



Practical learning Activity

- ✓ Ask trainees to apply dough mixing using sponge method.



Points to Remember (Take home message)

- Dough mixing techniques



Indicative content 1.3.2. Mixing parameters adjustment



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Mixing parameters for cakes and tortes are:

- Speed
- Time
- Temperature of ingredients
- Mixing steps (succession of ingredients)

Quality parameters of dough:

- Apparent viscosity
- Batter density
- Flavor
- Color
- Microscopic analysis results
- Taste



Theoretical learning Activity

- ✓ Ask trainees to discuss about quality parameters of the dough in pairs.



Practical learning Activity

Ask learners to make a sample of cakes dough and check its parameters such as viscosity, flavour, taste and color.



Points to Remember (Take home message)

- Quality parameters of the dough for cakes
- Cakes and tortes dough mixing parameters



- Learning outcome 1.2 Formative assessment

Written assessment

1. The following are mixing parameters Except;
 - A. Mixing steps
 - B. Relative humidity
 - C. Speed
 - D. Time
2. Outline the dough quality parameters
3. Explain the foaming method which is used in cakes and tortes making

ANSWERS:

4. **B. Relative humidity**
5. Dough quality parameters:
 - Apparent viscosity
 - Batter density
 - Flavor
 - Color
 - Microscopic analysis results
 - Taste

3. **Foaming method:** A foaming method is any method in which the eggs are whipped or beaten to incorporate air before they are folded into the rest of the batter. Here, beaten eggs are one of the keys to success in making recipes. Whipping eggs (whole and/or yolks only **or** whites only) is processed with addition of the portion of the sugar.



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References:

1. <https://www.masterclass.com/articles/frosting-vs-icing>
2. <https://www.iccadubai.ae/stockpot/6-different-types-of-icing-for-your-cake>
3. <https://www.bbcgoodfood.com/recipes/buttercream-icing>
4. <https://www.floweraura.com/blog/royal-icing-cake-decorating-techniques>

Learning Unit 2: Process dough into cakes and tortes

Picture/s reflecting the Learning unit 2



STRUCTURE OF LEARNING UNIT

Learning outcomes:

- 2.1.** Mould dough for shaping and sizing
- 2.2.** Bake cakes and tortes
- 2.3.** Check cakes and tortes doneness

- Learning outcome 2.1. Mould dough for shaping and sizing



Duration: 5.hrs



- Learning outcome 2.1 objectives:

By the end of the learning outcome, the trainees will be able to:

1. State mould quality parameter as used in mould the dough cake and totes making
2. Identify material used in coating the moulds as used in cake and tortes making.
- 3.Explain the Techniques of coating the moulds as used in cake and tortes making



Resources

Equipment	Tools	Materials
Dough mixer	<ul style="list-style-type: none"> • Cake pan • Molders • Cooling Racks • Thermometer • Parchment paper 	<ul style="list-style-type: none"> • Shortening • Flour • Aluminum • Grease



Advance preparation:

Make sure all required materials/teaching and learning aids are available



Indicative content **2.1.1. Mould quality parameters**



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Mould quality parameters

✓ **Made in stainless steel, Aluminium, Silcon**

Stainless steel is resistant to corrosion.

There are many different metals which can be used to create molds

- Aluminum is a good conductor, homogeneously distributes heat, improving the cooking of food in the oven. There is no risk of cracking, melting, charring or burning.
- Only food-grade silicone is safe for cooking and baking. Silicone has inert materials as ingredients, meaning nothing used to manufacture silicone will penetrate into the food being cooked.

✓ **Temperature resistance**

High temperature resistance, can be put into oven, refrigerator, temperature resistance -40°C to 230°C

Techniques of coating the moulds

i. Grease the inside of the pan

- Before putting the batter in the pan, Layer of fat is applied between a metal pan and gluten and sugar so that cake will release from the pan after it's baked.
- Applying a thin layer of grease to a baking pan **helps baked goods release easily without sticking to the bottom or sides of the pan**
- With clean hands rub butter inside the pan, making sure to smear it across the entirety of the pan's interior.

Common methods for greasing a pan

- Rubbing a stick of cold butter around the pan
- Applying melted butter with a pastry brush
- Using an oil-based spray
- Spreading vegetable shortening around using a paper towel

ii. Grease and flour

Coating a greased cake pan with a thin dusting of flour creates a barrier between the grease and the cake batter, which prevents the grease from melting and disappearing into the batter as the cake bakes, allowing it to do its job in the end, after the cake is baked.

Material needed:

- Cake pan
- Shortening
- Flour

Steps by steps of using grease and flour in coating cakes pan

1. Clean and dry cake pan
2. Spread shortening on pan
3. Add table spoon of flour and shake until spread

iii. Parchment paper

Parchment is a non-toxic, grease- and moisture-resistant paper specially treated for oven use, and can withstand temperatures up to 230°C.

Parchment paper will prevent anything from sticking to your pan.

Reasons to Use Parchment Paper

- **Even baking:** Parchment paper creates a thin airy layer between the baking sheet and the paper that helps regulate the temperature, and neutralize hot spots
- **Reduces undesirable spreading**
- **Eliminates sticking:** Cake pans lined with parchment allow the cakes to flip easily out of pans, without clinging to the bottom



Theoretical learning Activity

- ✓ **Conduct brainstorming session with trainees on the** mould quality parameter as used in mould the dough cake and totes making .



Practical learning Activity

- ✓ **Within group of three trainees** perform the Techniques of coating the moulds as used in cake and tortes making.



Points to Remember (Take home message)

. Techniques of coating the moulds are:

- i. Grease the inside of the pan
- ii. Grease and flour



Learning outcome 2.1 formative assessment

Written assessment

1. What are different metals which can be used to create molds.
2. Explain Reasons to Use Parchment Paper in cake and tortes coating.
3. The following are **Common methods for greasing a pan**, answer with true or false
 - Rubbing a stick of cold **water around** the pan **False**
 - Applying melted butter with a pastry brush **True**
 - Using an oil-based spray **True**
 - Spreading **vegetable juice** around using a paper towel **False**
4. Which the following are Steps using greasing and flour in coating cakes pan
 1. Clean and dry cake pan
 2. Using an oil-based spray
 3. Spread shortening on pan
 4. Applying melted butter with a pastry brush



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

Scenario

NGORORERO UZIP Ltd is one of bakery produce cake and tortes. During baking the cakes are sticks as supervisor you are assume that the problem is based on coating and you are hired in order to take corrective measure on that problem of Coating

Task to be performed:

- 1.To prepare oil for coating the mould.
2. To coat five mould using one of techniques of coating.

Checklist	Score	
	Yes	No
Indicator: Mould coating parameter		
Mould Composition are considered		
Mould temperature resistance are considered		
Indicator: Techniques of coating the moulds		
Grease is correctly use		
Grease and flour is correctly use		
Parchment paper is correctly use		

References:

1. <https://www.chileanfoodandgarden.com/best-meringue-decorate-cakes>
2. <https://www.favfamilyrecipes.com/how-to-make-fondant/>
3. <https://www.coeliac.org.uk/information-and-support/your-gluten-free-hub/home-of-gluten-free-recipes/new-to-gluten-free-cooking/gluten-free-cake-making/>

- Learning outcome 2.2. Bake cakes and tortes



Duration 10 hrs



- Learning outcome 2.2 objectives:

By the end of the learning outcome, the trainees will be able to:

- 1.Name correctly tools used to check end point of baking cake and tortes
2. Identify clearly Quality characteristic of baked cake and tortes:
- 3.Explain properly Baking condition of cake and tortes
- 4.Discuss properly cooling method as used in cake and tortes making.



Resources

Equipment	Tools	Materials
Baking oven	<ul style="list-style-type: none"> • Thermometer • Cake tester • Toothpick • Tables 	<ul style="list-style-type: none"> • Shortening • Cake • Marker • Notebooks • Books • Philips chart



Advance preparation:

Make sure all materials, tools and equipment are available.



Indicative content 2.2.1. Tools used to check end point of baking cake and tortes



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

. Tools use to check end baking of cake and tortes.

1.Cake tester

- The little stick-like kitchen tools that are used to test the doneness of cakes
- Cake testers are long, thin metal pins with small plastic handles, used to poke cakes to test interior doneness.



2.Toothpick

To determine if cakes are done, the toothpick is used test. For the vast majority of baked goods, a toothpick inserted in the center to come out clean, indicating that the crumb is fully set and no excess moisture remains.





Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on the Cake tester as used in cake and tortes making.



Practical learning Activity

- ✓ **Within group of fours trainees** perform tooth picking as used in testing baked cake and tortes making .



Points to Remember (Take home message)

. **Tools use to check end baking of cake and tortes like:**

- 1.Cake test
- 2.Coothpeck



- Learning outcome 2.2.1 formative assessment

Written assessment

1.The following are the explanation related to cake tester use ,answer with True or False.

a) The little stick-like classroom tools that are used to test the doneness of cakes **False**.

b) Cake testers are long, thin metal pins with small plastic handles, used to poke cakes to test interior doneness **True**

2. During cake and tortes baking there must be well baked,How can you determine if cake are done .

Answer

To determine if cakes are done, the toothpick is used test.

For the vast majority of baked goods, a toothpick inserted in the center to come out clean, indicating that the crumb is fully set and no excess moisture remains.



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment



Indicative content 2.2.2. Quality characteristic of baked cake and tortes



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

. Quality characteristic of baked cake and tortes

- ✓ **Crumb structure:** homogeneity of air bubbles, sponge structure
- ✓ **Crust structure:**
 - The crust character of a cake refers to the condition of the cake's crust.
 - The color of the crust will also vary with the type of the crust.
 - it should have a thin and tender crust.
 - A cake that has a crust that is too thick, rubbery, sticky, too delicate, tough, or blistered misses the mark.
 - These crust characters are indicative of poor quality.
- ✓ **Nutrition contents:** Besides milk and eggs, flour and sugar are the main ingredients in a cake, which are excellent sources of carbohydrates (which do provide your body, brain, and muscles with energy)
- ✓ **Colour:** Golden brown
- ✓ **Taste:** sweet with no bitter taste.
- ✓ **Flavour:** delicately pleasing



Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on the Crust structure as quality characteristics of cake and tortes making.



Practical learning Activity

- ✓ Within group of four trainees apply organoleptic test observe the quality characteristics of baked cake and tortes .



Points to Remember (Take home message)

. Quality characteristic of baked cake and tortes are:

- ✓ **Crumb structure**
- ✓ **Crust structure:**
- ✓ **Nutrition contents**
- ✓ **Colour**
- ✓ **Taste**
- ✓ **Flavour**



- Learning outcome 2.2.2 formative assessment

Written assessment

1. Fill in gap by using the missed word concerning on crust structure of well baked cake and tortes.

- a) Theof a cake refers to the condition of the cake's crust.
- b) The color of the crust will also vary with
- c) It should have a thin and
- d) A cake that has a crust that is too thick,, sticky,, tough, or blistery misses the mark.

Answer:

- a) The **crust character** of a cake refers to the condition of the cake's crust.
- b) The color of the crust will also vary with **the type of the crust**.
- c) It should have a thin and **tender crust**.
- d) A cake that has a crust that is too thick, **rubbery**, sticky, **too delicate**, tough, or blistery misses the mark



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment



Indicative content 2.2.3. Baking condition of cake and tortes



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

. Baking condition of cake and tortes

There is absolutely no universal baking time and temperature for all cakes, because each type of cake has different ingredients and characteristics.

✓ Temperature and Time

The length of baking time and temperature depend on the size of cake done. But in general it is **180 °C to 220 °C** and between **25-30 min** for the small cake and between **1-2 hours** for the big one

When the oven temperature is too high compared to the specified level, the cake will easily crack.

In this case, the top of the cake will be burnt or dry as a result. When the temperature in the oven is high and the time is not enough, the baking will also crack and burn. Not only that, the cake may also be slightly burnt, when tested with a spoon or with a toothpick, it will appear dry, but when taking the cake out of the oven, the cake will definitely shrink, the inside of the cake will still be wet and because the dough is not fully cooked.

When **the baking temperature is too low**, the time is not enough, the cake will be light yellow, not porous. The outer surface of the cake is cooked, but the inside of the dough cake will be raw, wet and have a fishy smell of eggs because the cake has not been cooked.

✓ **Relative humidities**

- Relative humidity is the percentage of water vapor in the air at a given temperature.
- The ideal relative humidity percentage, normally 40 to 60 percent
- The humidity level in your indoor air affects the moisture balance in a recipe, and whether your baked goods fall flat, are too dense and chewy, or too dry and crumbly. If the humidity is high, flour, sugar, salt and other dry ingredients will soak up extra moisture. When humidity is low, they'll get drier.
- The percentage of relative humidity in the various parts of the bakery is measured by an instrument known as a hygrometer.



Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on temperature and time as baking condition of cake and tortes



Practical learning Activity

- ✓ Within group of fours trainees perform adjustment of cake baking condition in cake and tortes making.



Points to Remember (Take home message)

. Baking condition of cake and tortes are:

- ✓ **Time and Temperature**
- ✓ **Relative humidity**



- Learning outcome 2.2.3 formative assessment

Written assessment

1. Complete the following statement using the missed word related with to cake baking condition
2. The length of baking time and temperature depend on the size of cake done. But in general it is °C to°C and betweenfor the small cake and between for the big one

ANSWER:

The length of baking time and temperature depend on the size of cake done. But in general it is **180 °C to 220 °C** and between **25-30 min** for the small cake and between **1-2 hours** for the big one



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment



- Indicative content 2.2.4. Cool the baked cake and tortes



- Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

✓ **Cooling methods**

1. At room temperature

After taking a hot cake from the oven, cool the cake in the pan for 10 to 20 minutes so it can set. Then turn the cake out onto a wire rack to finish cooling it.

If you are concerned about your cake sticking to the pan, run a butter knife around the sides of the baked cake. Then:

- Place the cooling rack on top of the cake pan.
- Hold onto the cooling rack and cake pan and turn the pan upside down. Pull the cake pan off the cake.
- Cool the cake on the wire rack on a flat surface. A cooling rack helps a cake to cool down quickly and evenly because air can circulate around the whole cake.

Active cooling (use of the Refrigerator, Freezer)

2. Cool the Cake in the Refrigerator,

- A cake can cool in about an hour in the refrigerator. The time depends on cake size, of course.
- The refrigerator can dry a cake out.
- **The best way to cool cakes in the fridge:**
 - Remove the cake from the oven and cool the pan on the wire rack for 10 to 20 minutes. Don't skip this step if you want your cake to hold its shape and come out of the pan easily.
 - Transfer the cake from the pan to the wire rack.
 - Place the wire rack in the fridge. You can line the refrigerator shelf with greaseproof paper or place the cooling rack on a sheet pan first.
 - Cool for an hour or until the cake is room temperature.

3. Cool the Cake in the Freezer

Cakes can be cooled down the fastest in the freezer.

The best part is that the freezer doesn't dry out an uncovered cake as much as the fridge does. As long as it isn't kept in there uncovered for too long.

A cake can cool to room temperature in **about 30 minutes** in the freezer.

✓ **Cooling Temperature**

The cakes should be cooled at room temperature within 2 to 3 hours to cool down but thicker cakes will take longer to cool and dense cakes also will take longer to cool than light cakes.

The average temperature of a room is generally around 20°C and 21°C.

✓ **Function of cooling**

- The main reasons for waiting cake to cool, is that cakes are **still very fragile when hot, and so spreading the icing is likely to create breakage and a lot of crumbs, spoiling your smooth finish.**

- The other reason to wait, is that if the cake is too hot, **icing frosting won't stay put, and will instead it melt into the cake. And no one likes a runny cake.**



Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on function of cooling of cake and tortes



Practical learning Activity

- ✓ Within group of fours trainees apply the method of cooling the baked cake and tortes



Points to Remember (Take home message)

- ✓ Cooling method
- ✓ Cooling temperature
- ✓ Cooling function



- Learning outcome 2.2.4 formative assessment

Written assessment

1. Explain the purpose of cooling well baked cakes and tortes.

Answer:

- The main reasons for waiting cake to cool, is that cakes are **still very fragile when hot, and so spreading the icing is likely to create breakage and a lot of crumbs, spoiling your smooth finish.**
- The other reason to wait, is that if the cake is too hot, **icing frosting won't stay put, and will instead it melt into the cake. And no one likes a runny cake.**



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

- Learning outcome 2.3 Package and store cakes and tortes



Duration 5 hrs



- Learning outcome 3 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Outline correctly materials used for cake and tortes
2. Identify clearly the types of packaging materials cake and tortes
3. Explain properly Labeling storage well baked of cake and tortes



Resources

Equipment	Tools	Materials
	<ul style="list-style-type: none"> • Cake tester • Toothpick • Tables • Hygrometer 	<ul style="list-style-type: none"> • Shortening • Cake • Marker • Notebooks • Books • Philips chart



Advance preparation:

Make sure all materials, teaching/learning aids are available.

- Indicative content 2.3.1. materials use for cake and tortes

Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

. Packaging materials use for cake and tortes

✓ Cake bags

These boxes are made of hard plastic in round shape boxes created for cakes and cookies.

✓ Cake boxes/ Cardboard cake box

- Usually used in bakeries, solid board and folding carton cake boxes are available in one and two-piece designs.
- An interesting, inventive cake box consisting of a tray and lid is named 'Torten Boy.'
- This box can be opened on two sides to cut the cake horizontally rather than upwards.
- This prevents any issues with removing the cake from the box and guarantees that there is no damage.
- Some may have separate lids, while others are connected to the rest of the box with a flip lid.
- They deliver great visibility, visual effect and presentation.

✓ Cup cake

- The cupcake window box has a 'window' on its lid, much like the window patisserie box, from which you can see the box's contents.
- However, this package has an insert that is specifically designed for cupcakes.
- The inserts make sure that while loading or unloading the cupcakes from the package, the delicate cupcake icing is not harmed and also holds the cupcakes in place throughout transport

Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on **Cake boxes/ Cardboard cake box as packaging material for cake and tortes making.**

Practical learning Activity

- ✓ **With in group of fours trainees** apply the **Cake bags** as packaging material for cake and tortes making .

Points to Remember (Take home message)

. Packaging materials use for cake and tortes like:

- | |
|---|
| <ol style="list-style-type: none">1. Cake boxes/ Cardboard cake box2. Cake bags3. Cups cakes |
|---|

Learning outcome 2.3.1 formative assessment

Written assessment

1. Fill in gap The following statement concern with the explanation of cake boxes as packaging material for cake and tortes making.

1. This box can be opened on two sides rather than upwards.
2. This with removing the cake from the box and guarantees that there is no damage.
3. Some may have separate lids, while others areof the box with a flip lid.
4. They deliver, visual effect and presentation

Answer:

1. This box can be opened on two sides **to cut the cake horizontally** rather than upwards.
2. This **prevents any issues** with removing the cake from the box and guarantees that there is no damage.
3. Some may have separate lids, while others are **connected to the rest of** the box with a flip lid.
They deliver **great visibility**, visual effect and presentation

Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References

1. <https://www.bbcgoodfood.com/recipes/buttercream-icing>
2. <https://www.floweraura.com/blog/royal-icing-cake-decorating-techniques>
3. <https://www.chileanfoodandgarden.com/best-meringue-decorate-cakes/>



Indicative content 2.3.2.the types of packaging materials of cake and tortes

Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

. Type of packaging

✓ **Primary packaging**

Primary packaging is the packaging in direct contact with the cake itself and is sometimes referred to as a consumer unit. The main purpose of primary packaging is to contain, protect and/or preserve the finished cake, particularly against contamination.

✓ **Secondary packaging**

1. This type of packaging is used outside of primary packaging to group a certain number of products to create a stock-keeping unit.
2. It facilitates the handling of smaller products by collating them into a single pack.
3. This type of packaging also provides supplementary protection to help maintain the integrity of the primary packaging.

✓ **Tertiary packaging**

1. This type of packaging is used to group larger quantities.
2. This type of packaging makes it easier to transport large and/or heavy loads safely and securely.
3. In addition to helping prevent damage, it consequently facilitates the handling, storage and transport of goods.

Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on the primary packaging material of cake and tortes making.

Practical learning Activity

- ✓ With in group of fours trainees apply tertiary packaging on well baked cake and tortes .

Points to Remember (Take home message)

Type of packaging in cake and tortes are:

- ✓ Primary packaging
- ✓ Secondary packaging
- ✓ Tertiary packaging

- Learning outcome 2.3.2 formative assessment

Written assessment

1.Fill in gap by using the missed word concerning on crust structure of well baked cake and tortes.

Read the following statement and answer with **True or False**

1. This type of packaging is used outside of primary packaging to separate a certain number of products to create a stock-keeping unit.
2. Primary packaging is the packaging in direct contact with the cake itself and is sometimes referred to as a consumer unit.
3. This type of packaging is used to group larger quantities.

Answer:

- 1.This type of packaging is used outside of primary packaging to separate a certain number of products to create a stock-keeping unit.**FALSE**
- 2.Primary packaging is the packaging in direct contact with the cake itself and is sometimes referred to as a consumer unit. **True**
- 3.This type of packaging is used to group larger quantities. **True**

Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References

1. <https://www.favfamilyrecipes.com/how-to-make-fondant/>
2. <https://www.coeliac.org.uk/information-and-support/your-gluten-free-hub/home-of-gluten-free-recipes/new-to-gluten-free-cooking/gluten-free-cake-making/>
3. <https://www.condair.com/humidifiernews/blog-overview/what-is-the-best-humidity-for-baking>



Indicative content 2.3.3. Labelling and Storage of well baked cake and tortes

Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

✓ **Label**

It is a piece of paper, plastic film, cloth, metal, or other material affixed to a container or product, on which is written or printed information or symbols about the product or item. Information printed directly on a container or article can also be considered **labelling**.

An information label should provide a potential customer with more detailed information about the product they are considering purchasing

Examples of information that should be on label:

1. Manufacture and expired date
2. Product name
3. Company name and address
4. Nutrition content
5. Instruction for user

✓ **Storage conditions**

1.Temperature:

Most cakes, frosted and unfrosted, cut and uncut, are perfectly fine at room temperature for several days between 20°C to 21°C.

- Be sure to cover tightly but do not refrigerate.
- Store at room temperature for approximately 5 days whereas in Freeze for longer storage, up to 3 months.
- But for Sponge Cake, Store at room temperature for approximately 1 week whereas Freeze for longer storage, up to 2 months.
- A decorated cake with buttercream frosting can be stored at room temperature for up to 3 days. If you want to refrigerate a decorated cake, place it in the refrigerator unwrapped until the frosting hardens slightly.

2.Light

Cakes should be stored in dark place, free from sunlight

3.Relative humidities

To keep cakes fresh, it's best to store them in airtight containers in a cool, dry place. If you don't have an airtight container or cake tin, use can also use an overturned bowl with a relative humidity level at or below 60 percent.

Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on temperature and time as baking condition of cake and tortes

Practical learning Activity

- ✓ With in group of fours trainees perform adjustment of cake baking condition in cake and tortes making .

Points to Remember (Take home message)

. Baking condition of cake and tortes are:

- ✓ **Time and Temperature**
- ✓ **Relative humidity**

Learning outcome 2.2.3 formative assessment

Written assessment

- 3. Complete the following statement using the missed word related with to cake baking condition**
- 4. The length of baking time and temperature depend on the size of cake done. But in general it is °C to°C and betweenfor the small cake and between for the big one**

ANSWER:

The length of baking time and temperature depend on the size of cake done. But in general it is **180 °C to 220 °C** and between **25-30 min** for the small cake and between **1-2 hours** for the big one

Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References

- .1. http://kasetsartjournal.ku.ac.th/kuj_files/2011/a1106211655184223.pdf
2. <https://ofbatteranddough.com/prevent-cakes-from-stickin>
3. <https://www.masterclass.com/articles/frosting-vs-icing>



- Indicative content 2.2.4. cool the baked cake and tortes
- Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

✓ **Cooling methods**

1. At room temperature

After taking a hot cake from the oven, cool the cake in the pan for 10 to 20 minutes so it can set. Then turn the cake out onto a wire rack to finish cooling it.

If you are concerned about your cake sticking to the pan, run a butter knife around the sides of the baked cake. Then:

- Place the cooling rack on top of the cake pan.
- Hold onto the cooling rack and cake pan and turn the pan upside down. Pull the cake pan off the cake.
- Cool the cake on the wire rack on a flat surface. A cooling rack helps a cake to cool down quickly and evenly because air can circulate around the whole cake.

Active cooling(use of the Refrigerator, Freezer)

2. Cool the Cake in the Refrigerator,

- A cake can cool in about an hour in the refrigerator. The time depends on cake size, of course.
- The refrigerator can dry a cake out.
- **The best way to cool cakes in the fridge:**
 - Remove the cake from the oven and cool the pan on the wire rack for 10 to 20 minutes. Don't skip this step if you want your cake to hold its shape and come out of the pan easily.
 - Transfer the cake from the pan to the wire rack.
 - Place the wire rack in the fridge. You can line the refrigerator shelf with greaseproof paper or place the cooling rack on a sheet pan first.
 - Cool for an hour or until the cake is room temperature.

3. Cool the Cake in the Freezer

Cakes can be cooled down the fastest in the freezer.

The best part is that the freezer doesn't dry out an uncovered cake as much as the fridge does. As long as it isn't kept in there uncovered for too long.

A cake can cool to room temperature in **about 30 minutes** in the freezer.

✓ **Cooling Temperature**

The cakes should be cooled at room temperature within 2 to 3 hours to cool down but thicker cakes will take longer to cool and dense cakes also will take longer to cool than light cakes.

The average temperature of a room is generally around 20°C and 21°C.

✓ **Function of cooling**

- The main reasons for waiting cake to cool, is that cakes are **still very fragile when hot, and so spreading the icing is likely to create breakage and a lot of crumbs, spoiling your smooth finish.**

- The other reason to wait, is that if the cake is too hot, **icing frosting won't stay put, and will instead it melt into the cake. And no one likes a runny cake.**

Theoretical learning Activity

- ✓ Conduct brainstorming session with trainees on function of cooling of cake and tortes

Practical learning Activity

- ✓ With in group of fours trainees apply the method of cooling the baked cake and tortes

Points to Remember (Take home message)

- ✓ Cooling method
- ✓ Cooling temperature
- ✓ Cooling function

- Learning outcome 2.2.4 formative assessment

Written assessment

1.Explain the purpose of cooling well baked cakes and tortes.

Answer:

The purpose of cooling are:

- The main reasons for waiting cake to cool, is that cakes are **still very fragile when hot, and so spreading the icing is likely to create breakage and a lot of crumbs, spoiling your smooth finish.**
- The other reason to wait, is that if the cake is too hot, **icing frosting won't stay put, and will instead it melt into the cake. And no one likes a runny cake.**

Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References

- 1.<https://www.iccadubai.ae/stockpot/6-different-types-of-icing-for-your-cake>
2. <https://www.bbcgoodfood.com/recipes/buttercream-icing>
3. <https://www.floweraura.com/blog/royal-icing-cake-decorating-techniques>

Learning Unit 3: Decorate cakes and tortes

Picture/s reflecting the Learning unit 3



STRUCTURE OF LEARNING UNIT

Learning outcomes:

- 3.1 Identify raw materials for cake.
- 3.2 Prepare cream for cake decoration.
- 3.3 Decorate cakes and tortes.

- Learning outcome 3.1 Identify raw materials for cake.



Duration: 6 hrs



- Learning outcome 3.1 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify correctly materials, tools and equipment for cake decoration.
2. Describe properly the use and function of materials, tools and equipment for cake decoration
3. Explain clearly cake decorating procedure.



Resources

Equipment	Tools	Materials
<ul style="list-style-type: none">- Preparation tables- Dough mixer- Cooling Rack- Turntable	<ul style="list-style-type: none">- Measuring Cups (Liquid and Dry)- Spoons- Whisk. ...- Kitchen Scissors. ...- A Sifter- Ice Cream Scoops- A Stainless Steel Bench Scraper- Mixing Bowls- Different type of cream- Sharp knife- Cake boards and drums- Spatula or bench scraper- Fondant rollers- Fondant smoother- Paintbrushes- Cake decorating moulds- Cake separators, pillars and dowels- Cake stencils- Cake scrapers- Cake crimpers- Piping bags- Piping tip	<ul style="list-style-type: none">- Flipchart- Computer- Markers- Eggs- Icing sugar- Lemons- Water- Vinegar- Fats/shortening



Advance preparation:

- . Make sure that all teaching/learning aids are available.



Indicative content 3.1.1: Raw materials for cake decoration with their functions



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Raw materials used for cake decoration:

- Icing sugar
- Vinegar
- Food color
- Eggs
- Citron
- Tam
- Blue band
- Water
- Gelatin
- Glycerine
- Shortening
- Different flavor

Function of raw materials

- Icing sugar: used in icings, confections, add an attractive decorative touch
- Vinegar: increase the acidity and act as preservative
- Food color: to enhance or mask natural food colors, to provide identity to foods, and to decorate cakes and tortes
- Eggs: add the protein in cream, used in frosting
- Citron: add flavor in decorated cake and act as preservative
- Tam: used for frosting cake
- Blue band: the same as Tam, blue band is used for frosting cake



Theoretical learning Activity

- ✓ Ask the trainees to brainstorm about raw materials needed in cakes decoration with their functions



Practical learning Activity

- ✓ Trainees go to workshop and select the tools, equipment and materials for cakes and tortes decoration



Points to Remember (Take home message)

- Materials, tools and equipment for cake decoration
- Functions of materials used for cake decoration



- Learning outcome 3.1 Formative assessment

Written assessment

Match the Elements of column A with those of Column B. Write the answer in Column 0

COLUMN 0	COLUMN A	COLUMN B
1 =	1. Icing sugar	A. Increase the acidity and act as preservative
2 =	2. Blue band	B. Used in icings, confections, add an attractive decorative touch
2 =	3. Citron:	C. It is used to provide identity to foods, and to decorate cakes and tortes
4 =	4. Eggs	D. Add flavor in decorated cake and act as preservative

5 =	5. Vinegar:	E. It is used for color enhancement
		F. It is used for frosting cake
		G. Add the protein in cream, used in frosting

Answers:

COLUMN 0	COLUMN A	COLUMN B
1. = B	1. Icing sugar	A. Increase the acidity and act as preservative
2. = F	2. Blue band	B. Used in icings, confections, add an attractive decorative touch
3. = D	3. Citron	C. It is used to provide identity to foods, and to decorate cakes and tortes
4. = G	4. Eggs	D. Add flavor in decorated cake and act as preservative
5 = A	5. Vinegar:	E. It is used for color enhancement
		F. It is used for frosting cake
		G. Add the protein in cream, used in frosting



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References:

1. <https://www.chileanfoodandgarden.com/best-meringue-decorate-cakes/>
2. <https://www.favfamilyrecipes.com/how-to-make-fondant/>
3. <https://www.coeliac.org.uk/information-and-support/your-gluten-free-hub/home-of-gluten-free-recipes/new-to-gluten-free-cooking/gluten-free-cake-making/>

- Learning outcome 3.2 Prepare cream for cake decoration.



Duration: 7 hrs



- Learning outcome 3.2 objectives:


By the end of the learning outcome, the trainees will be able to:

1. Outline clearly quality characteristics of cream used for cakes decoration
2. Identify correctly types of cream used for cake decoration.
3. Explain properly the procedure of cream preparation in cake decorating process.




Resources

Equipment	Tools	Materials
<ul style="list-style-type: none"> - Preparation tables - Dough mixer - Turntable 	<ul style="list-style-type: none"> - Measuring Cups (Liquid and Dry) - Spoons - Whisk. ... - Kitchen Scissors. ... - A Sifter - Ice Cream Scoops - A Stainless Steel Bench Scraper - Mixing Bowls - Different type of cream - Sharp knife - Cake boards and drums - Spatula or bench scraper - Fondant rollers - Fondant smoother - Paintbrushes - Cake decorating moulds - Cake separators, pillars and dowels - Cake stencils 	<ul style="list-style-type: none"> - Flipchart - Computer - Markers - Eggs - Icing sugar - Lemons - Water - Vinegar - Fats/shortening

	<ul style="list-style-type: none"> - Cake scrapers - Cake crimpers - Piping bags - Piping tip 	
 Advance preparation: <ul style="list-style-type: none"> . Make sure that all teaching/learning aids are available. 		



Indicative content 3.2.1: Quality characteristics of cream

-  Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Quality characteristics of cream:

- Sweet taste
- Good look and attractive
- Good smell and attractive
- Viscosity
- Well homogenized



Theoretical learning Activity

- ✓ Ask the trainees to brainstorm about quality characteristics of cream used in cakes decoration



Practical learning Activity

- ✓ Trainees go to workshop and test for the quality characteristics of cream using a sample of cream



Points to Remember (Take home message)

- Quality characteristics of cream



Indicative content 3.2.2: Types of cream



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Different type of cream

- **Butter cream:** Buttercream is softer and more spreadable than most icing and is the preferred choice for taste and flexibility. It can be used as a filling inside cakes and also as a coating for decoration. It is made by creaming together sugar and butter or other fats like lard or margarine.
- **Whipped cream:** If lighter frosting is what you need then whipped cream is the answer. Often called Chantilly cream or crème Chantilly, it is made by cold-whipping together heavy cream and icing sugar till light and fluffy.
- **Royal icing:** Traditionally used to cover and decorate dense fruit cakes, Royal icing is a pure white and fluid paste that solidifies into a hard outer shell on drying. Made by beating together egg whites, icing sugar, and lime juice, it looks smooth, hard and matte when dry.
- **Cream cheese frosting:** Cream cheese frosting is perfect for carrot cakes, cupcakes, red velvet cake, as a filling for doughnuts and well just about any kind of pastry with all that creamy and cheesy deliciousness.
- **Meringue:** This very light & frothy icing is made by beating together egg whites, cold water, and granulated sugar. The technique of introducing air to the mixture gives it a foamy consistency.
- **Fondant:** Fondant is a popular heavy frosting that can be easily sculpted and is used mainly for celebration cakes. Basic fondant ingredients include water, gelatine, glycerine, water, sugar (icing or castor sugar) and shortening.



Theoretical learning Activity

- ✓ Ask the trainees to brainstorm about types of cream used in cakes decoration



Practical learning Activity

- ✓ Trainees observe different types of cream and after observation and testing, they discover those types.




Points to Remember (Take home message)

- Different types of cream :
- Butter cream
- Whipped cream
- Royal icing
- Cream cheese frosting
- Meringue
- Fondant



- Indicative content 3.2.3: Cream mixing procedure

-  Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Mixing procedure for making cream:

- Example 1 : Butter cream
- Ingredients
- 600g icing sugar, sifted
- 300g unsalted or salted butter, softened

Procedure:

1. Beat 600g sifted icing sugar and 300g butter together with your chosen flavouring and colouring if using, add 2-3 tbsp of boiling water to loosen and beat until smooth.
2. Fill a piping bag with a star nozzle and pipe onto cupcakes or smear in the middle and over the top of a 20cm cake using a palette knife.

Keeping the icing: If you're not using the icing straightaway, you can cover it and refrigerate for up to a week. Allow it to come back up to room temperature and beat again if necessary before using

Example 2: Whipped cream

1. Chill the bowl and whisk for 20 minutes in your refrigerator or 5 minutes in freezer.
2. Whisk heavy cream on medium-high speed until it begins to thicken.
3. Pour in 5 tablespoons (62.5 g) of sugar gradually.
4. Whisk the cream at medium speed until you see soft peaks begin to form.
5. Add 1 ½ teaspoons (7.4 mL) of vanilla extract.
6. Whisk the cream by hand until stiff peaks begin to form in the cream
7. Put the cream frosting in the refrigerator to keep it cool.

Example 3 : Royal Icing Cake Decorating

1. Take a stand mixer, mix lukewarm water that is just slightly warm to touch with meringue powder or powdered egg whites.
2. Whip the mixture on high and scrape the sides as no residual powder should remain there

3. As you want your royal icing cake decorating to be lump free, use a water bottle to spray at the sides while scraping. It will dissolve the powder.
4. Add powdered sugar to a bowl and use the machine on medium. Stop every 2-3 minutes to scrape and dissolve the mixture thoroughly.
5. If you consider adding flavours, then add it in between you stop for scraping.
6. Now, mix the royal icing cake decorating to the consistency you desire to have for your cake.
7. If you wish to stiffen it, do not forget to add drops of water in between and have different consistency accordingly.

Don't you think preparing the best icing cake decorating is not that challenging?



Theoretical learning Activity

- ✓ Ask the trainees to brainstorm about the procedure of butter cream making.



Practical learning Activity

- ✓ Trainees apply mixing of different types of cream.



Points to Remember (Take home message)

- Mixing procedure for :
- Butter cream
- Whipped cream
- Royal icing



- Learning outcome 3.2 Formative assessment

Written assessment

Open ended question:

1. Explain the mixing procedure of butter cream used in cakes and tortes making

Answer:

- Mixing procedure of butter cream
- Ingredients
- 600g icing sugar, sifted
- 300g unsalted or salted butter, softened

Procedure:

1. Beat 600g sifted icing sugar and 300g butter together with your chosen flavouring and colouring if using, add 2-3 tbsp of boiling water to loosen and beat until smooth.
2. Fill a piping bag with a star nozzle and pipe onto cupcakes or smear in the middle and over the top of a 20cm cake using a palette knife.



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

References:

1. <https://www.condair.com/humidifiernews/blog-overview/what-is-the-best-humidity-for-baking-why#:~:text=The%20ideal%20relative%20humidity%20percentage,expands%20with%20just%20enough%20moistness.>
2. <https://www.thespruceeats.com/what-is-a-piping-bag-995740#:~:text=A%20piping%20bag%20is%20a,the%20shape%20of%20a%20cone.>

- Learning outcome 3.3 Decorate cake and tortes



Duration: 7 hrs



- Learning outcome 3.3 objectives:


By the end of the learning outcome, the trainees will be able to:

1. Identify correctly materials, tools and equipment for cake decoration.
2. State clearly the function of materials, tools and equipment for cake decoration
3. Explain properly the procedure of cake and tortes decoration.



Resources

Equipment	Tools	Materials
<ul style="list-style-type: none"> - Preparation tables - Dough mixer - Turntable 	<ul style="list-style-type: none"> - Measuring Cups (Liquid and Dry) - Spoons - Whisk. ... - Kitchen Scissors. ... - A Sifter - Ice Cream Scoops - A Stainless Steel Bench Scraper - Mixing Bowls - Different type of cream - Sharp knife - Cake boards and drums - Spatula or bench scraper - Fondant rollers - Fondant smoother - Paintbrushes - Cake decorating moulds - Cake separators, pillars and dowels - Cake stencils 	<ul style="list-style-type: none"> - Flipchart - Computer - Markers - Different type of cream - drums

	<ul style="list-style-type: none"> - Cake scrapers - Cake crimpers - Piping bags - Piping tip 	
 Advance preparation: <ul style="list-style-type: none"> . Make sure that all teaching/learning aids are available. 		



Indicative content 3.3.1: Materials, tools and equipment for cake decoration



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Materials, tools and equipment for cake decoration Sharp knife

- Cake boards and drums
- Spatula or bench scraper
- Turntable
- Fondant rollers
- Fondant smoother
- Paintbrushes
- Cake decorating moulds
- Cake separators, pillars and dowels
- Cake stencils
- Cake scrapers
- Cake crimpers
- Piping bags
- Piping tips



Theoretical learning Activity

- ✓ Ask the trainees to brainstorm about materials, tools and equipment for cake decoration



Practical learning Activity

- ✓ Trainees go to workshop and select materials, tools and equipment for cake decoration.



Points to Remember (Take home message)

- Materials, tools and equipment for cake decoration
 - Cake boards and drums
 - Spatula or bench scraper
 - Turntable
 - Fondant rollers
 - Fondant smoother
 - Paintbrushes
 - Cake decorating moulds
 - Cake separators, pillars and dowels
 - Cake stencils
 - Cake scrapers
 - Cake crimpers
 - Piping bags
 - Piping tips



Indicative Content 3.3.2: Functions of materials, tools and equipment for cake decoration



Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Functions of materials, tools and equipment for cake decoration

- Sharp knife: It can be used to smooth cake fillings and smooth toppings when making baked dishes.
- Cake boards and drums: used as the base of cakes
- Spatula or bench scraper: used for icing cake
- Turntable: An icing turntable is used by placing an undecorated cake onto its rotating surface, then turning it as you smooth sheets of icing, apply buttercream, pipe frosting or stick decorations on your bake.
- Fondant rollers: used to roll out *fondant*
- Fondant smoother:

Essential tool for shaping and smoothing rolled fondant on your cake.

Shapes fondant to the top, sides and edges of cake so that no puffed areas or air bubbles appear.

- Paintbrushes: It can be used to describe various patterns and is also a good way to remove fingerprints from surface impurities
- Cake decorating moulds: The first golden rule is to *use the right paste in your mould*
- Cake separators, pillars and dowels: **Cake pillars** and rods provide structural support in a range of styles.
- Cake stencils: it can be used to make design on cake
- Cake scrapers: is an essential tool for ensuring nice sharp clean edges on your cakes.
- Cake crimpers: Cake Crimpers can also be used to close and secure the sides of various foods that will have filling on the inside and dough on the outside as well as make curves and designs on your cakes.
- Piping bags: A piping bag is basically a bag in the shape of a cone. It is used to fill in the cream for decoration. The bag is filled with the ingredient to be piped and then twisted to force the ingredient toward the pointy end of the cone. The pointy end is open and can be fitted with any number of tips which will produce a different decorative effect.
- Piping tips: through the piping bag and piping tips this one will produce a decorative design

on cake and torte



Theoretical learning Activity

- ✓ Ask the trainees to discuss in groups of four (4) persons about the functions of different types of materials, tools and equipment used in cakes decoration



Practical learning Activity


- ✓ Trainees check the functionality of tools and equipment in work place (adjustment, OS, ...)



Points to Remember (Take home message)

- The functions of materials, equipment and tools used for cakes decoration



- Indicative content 3.3.3: Cake and torte decorating procedure
-  Summary for the trainer related to the indicative content (key notes using bullets such as ticks etc)

Cake and torte decorating procedure:

- Cool cake completely
- Level cake surfaces
- Crump coating
- The secondary frosting layer
- Piping decorations



Theoretical learning Activity

- ✓ Ask the trainees to brainstorm about the procedure of cake and torte decoration.



Practical learning Activity

- ✓ Trainees bake the cake and decorate it using provided materials, tools and equipment.



Points to Remember (Take home message)

Cake and torte decorating procedure :

- Cool cake completely
- Level cake surfaces
- Crump coating
- Put the secondary frosting layer
- Piping decorations



Learning outcome 3.3 Formative assessment

Written assessment

Open ended question:

1. Show the whole procedure of cake decoration

Answer:

- Cool cake completely
- Level cake surfaces
- Crump coating

- Put the secondary frosting layer
- Piping decorations



Please mix different assessment tools for triangulation and relevancy of assessment

Practical assessment

UBWIZA Company Ltd. Receives an order to produce cakes for birthday ceremony of the children and their employees are not qualified in cakes decoration. As a qualified supervisor you are hired to decorate those cakes within three (3) hours.

Task: To decorate two (2) cakes

- Each cake must weigh 1 kg with three layers
- The cake must have chocolate flavor

Note : The cakes have been already baked and kept in refrigerator

Checklist:

Checklist	Score	
	Yes	No
<u>Indicator:</u> Materials, tools and equipment for cake decoration are identified.		
<input type="checkbox"/> Sharp knife is identified.		
<input type="checkbox"/> Cake boards and drums is identified.		
<input type="checkbox"/> Spatula or bench scraper is identified.		
<input type="checkbox"/> Turntable is identified.		
<input type="checkbox"/> Fondant rollers is identified.		
<input type="checkbox"/> Fondant smoother is identified.		
<input type="checkbox"/> Paintbrushes is identified.		
<input type="checkbox"/> Cake decorating moulds is identified.		
<input type="checkbox"/> Cake separators, pillars and dowels is identified.		
<input type="checkbox"/> Cake stencils is identified.		
<input type="checkbox"/> Cake scrapers is identified.		
<input type="checkbox"/> Cake crimpers is identified.		
<input type="checkbox"/> Piping bags is identified.		
<input type="checkbox"/> Piping tips is identified.		

<u>Indicator:</u> Materials, tools and equipment are correctly used		
<input type="checkbox"/> Sharp knife is correctly used		
<input type="checkbox"/> Cake boards and drums is correctly used		
<input type="checkbox"/> Spatula or bench scraper is correctly used		
<input type="checkbox"/> Turntable is correctly used		
<input type="checkbox"/> Fondant rollers is correctly used		
<input type="checkbox"/> Fondant smoother is correctly used		
<input type="checkbox"/> Paintbrushes is correctly used		
<input type="checkbox"/> Cake decorating moulds is correctly used		
<input type="checkbox"/> Cake separators, pillars and dowels is correctly used		
<input type="checkbox"/> Cake stencils is correctly used		
<input type="checkbox"/> Cake scrapers is correctly used		
<input type="checkbox"/> Cake crimpers is correctly used		
<input type="checkbox"/> Piping bags is correctly used		
<input type="checkbox"/> Piping tips is correctly used		
<u>Indicator:</u> Cake decorating procedure are correctly respected.		
<input type="checkbox"/> Cool cake completely is correctly respected		
<input type="checkbox"/> Level cake surfaces is correctly respected		
<input type="checkbox"/> The crump coating is correctly respected		
<input type="checkbox"/> The secondary frosting layer is correctly respected		
<input type="checkbox"/> Piping decorations is correctly respected		
<input type="checkbox"/> Cool cake completely is correctly respected		
Observation		

References:

1. <https://www.masterclass.com/articles/frosting-vs-icing>
2. <https://www.iccadubai.ae/stockpot/6-different-types-of-icing-for-your-cake>
3. <https://www.bbcgoodfood.com/recipes/buttercream-icing>
4. <https://www.floweraura.com/blog/royal-icing-cake-decorating-techniques>
5. <https://www.chileanfoodandgarden.com/best-meringue-decorate-cakes/>
6. <https://www.favfamilyrecipes.com/how-to-make-fondant/>
7. <https://www.coeliac.org.uk/information-and-support/your-gluten-free-hub/home-of-gluten-free-recipes/new-to-gluten-free-cooking/gluten-free-cake-making/>