



RQF LEVEL 4



FOPBM403
FOOD PROCESSING

Bread Making

TRAINER'S MANUAL

October, 2024



BREAD MAKING



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ACRONYMS

°C: Degree Celsius

°F: Degree Fahrenheit

AGR: Agriculture

BM: Bread Making

FOP: Food Processing

FOPBM403: Food Processing, Bread Making, Level 4, Version 3

KOICA: Korea International Cooperation Agency

pH: Potential of Hydrogen

PPE: Personal protective equipment

RQF: Rwanda Qualification Framework

RTB: Rwanda TVET Board

RTB: Rwanda TVET Board

TQUM: TVET Quality Management Project

TVET: Technical and Vocational Education and Training

INTRODUCTION

This trainer's manual includes all the methodologies required to effectively deliver the module titled "**Bread Making**." Trainees enrolled in this module will engage in practical activities designed to develop and enhance their competencies.

The development of this training manual followed the Competency-Based Training and Assessment (CBT/A) approach, offering ample practical opportunities that mirror real-life situations.

The trainer's manual is organized into Learning Outcomes, which are broken down into indicative contents that includes both theoretical and practical activities. It provides detailed information on the key competencies required for each learning outcome, along with the objectives to be achieved.

As a trainer, you will begin by asking questions related to the activities to encourage critical thinking and guide trainees toward real-world applications in the labor market. The manual also outlines essential information such as learning hours, didactic materials, and suggested methodologies.

This manual outlines the procedures and methodologies for guiding trainees through various activities as detailed in their respective trainee manuals. The activities included in this training manual are designed to offer students opportunities for both individual and group work. Upon completing all activities, you will assist trainees in conducting a formative assessment known as the end learning outcome assessment. Ensure that students review the key reading and the points to remember section.

MODULE CODE AND TITLE: FOPBM403 BREAD MAKING

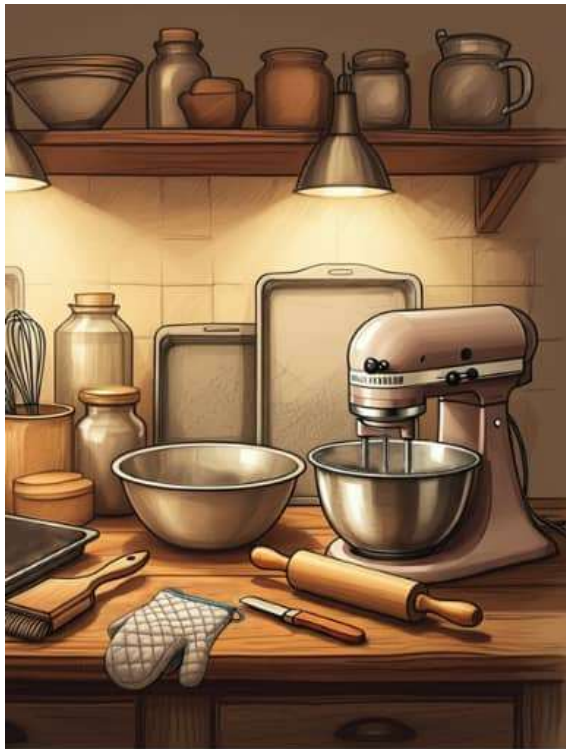
Learning Outcome 1: Prepare the workplace and ingredients

Learning Outcome 2: Make the dough

Learning Outcome 3: Bake the dough

Learning Outcome 4: Store the bread

Learning Outcome 1: Prepare the Workplace and Ingredients



Indicative contents

1.1. Selection of materials, tools and equipment for bread

1.2. Arrangement of working area for bread making

1.3. Preparation of ingredients for bread making

Key Competencies for Learning Outcome 1: Prepare Workplace and Ingredients

Knowledge	Skills	Attitudes
● Identification of tools, equipment and materials used in bread making. ● Description of safety precautions for using cleaning products ● Description of cleaning methods and techniques used in cleaning the workplace for bread making. ● Description of ingredients used in bread making.	● Selecting tools, equipment and materials for bread making ● Adjusting tools and equipment for bread making ● Cleaning the workplace for bread making ● Arranging the workplace for bread making ● Preparing ingredients for bread making	● Being attentive when using cleaning products as some can be harmful to life ● Being accurate while preparing ingredients ● Being careful when using sharp and electric connected tools and equipment



Duration: 10 hrs

Learning outcome 1 objectives:



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

1. Identify correctly tools, equipment and materials used in bread making
2. Select properly tools, equipment and materials for bread making
3. Adjust correctly tools and equipment used in bread making
4. Describe appropriately safety precautions for using cleaning products
5. Describe clearly cleaning methods and techniques used in cleaning the workplace for bread making
6. Clean effectively the workplace for bread making
7. Arrange properly the workplace for bread making
8. Describe appropriately the ingredients used in bread making
9. Prepare properly the ingredients for bread making



Resources

Equipment	Tools	Materials
● Baking Oven ● Proofer ● Gas stove ● Bread slicer ● Cooling racks ● Dough mixer ● PPE ● Dough divider/rounder ● Packaging machine ● Working tables ● Trolley	● Weighing scales ● Spatula ● Spoon ● Knives ● Baking sheets ● Buckets ● Brushes ● Towels ● Sponges ● Scraper ● Dust bin ● Thermometer ● Mould baking pans	● Wheat flour ● Table salt ● Yeast ● Brown sugar ● Potable water, ● Fat ● Cooking oil ● Whole milk ● Flavoring agents ● Eggs ● Detergents ● Disinfectant ● Sanitizer

	● Graduated jars ● Baking pan ● Cups ● Hygrometer ● Sieves ● Funnel ● Basins ● Mixing bowl	● Aluminium foil
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Advance Preparation:

Before delivering this learning outcome, you are recommended to:

- Avail tools and equipment and make sure that they are in good working condition, and verify if materials are not expired
- Prepare teaching aids and didactic materials (manuals/guides, task sheets, photos, audio-visuals, protocols)
- Make sure that both classroom and workshop are available



Indicative content 1.1: Selection of Materials, Tools and Equipment for Bread



Duration: 5 hrs



Theoretical Activity 1.1.1: Description of tools and equipment used in bread making



Notes to the trainer:

- Trainer may use small groups to describe tools and equipment used in bread making
- The use of drawings or pictures as didactic materials is required while describing tools and equipment used in bread making.



Key steps:

While delivering this activity, pass through the following steps:

Step1: Introduce the activity and ask trainees to answer the following questions:

- i. Basing on your understanding, give the list of tools and equipment used in making bread and their uses
- ii. What are safety precautions of tools and equipment used in bread making?

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings.

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 1.1.1 in trainee manual



Points to Remember

- Wash your hands thoroughly before, during and after processing.
- Wear PPE before starting to make bread
- Ensure that tools and equipment are well cleaned before being used.
- Handle sharp tools and other hazardous equipment carefully.



Theoretical Activity 1.1.2: Description of cleaning products used in bread making



Notes to the trainer:

- Trainer may use small groups to describe cleaning products used in bread making
- The use of drawings, pictures and/or videos as didactic materials while describing cleaning products used in bread making is required.



Key steps:

While delivering this activity, pass through the following steps:

Step1: Introduce the activity and ask trainees to answer the following questions:

- i. According to you, what are the types of cleaning products used in bread making?
- ii. Explain the safety and health precautions of those cleaning products
- iii. Give the directions of using cleaning products.

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings.

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 1.1.2 in trainee manual



Points to Remember

- When choosing a cleaning product, consider the surface you are cleaning and the type of stain you are trying to remove.
- Use food-safe cleaning agents and disinfectants.
- Always follow the instructions on the product label and wear appropriate protective gear when handling chemicals.
- Consider using eco-friendly cleaning products to minimize your impact on the environment.
- Choose the right cleaning product for the job to ensure optimal results.



Theoretical Activity 1.1.3: Description of packaging materials for bread



Notes to the trainer:

- Trainer may use small groups to describe packaging materials used in bread making
- The use of drawings or pictures as didactic materials while describing bread packaging materials is required.



Key steps:

While delivering this activity, pass through the following steps:

Step1: Introduce the activity and ask trainees to answer the following questions:

- i. What are the common packaging materials used in bread making?
- ii. What are the characteristics of good packaging materials for bread?

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings.

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 1.1.3 in trainee manual



Points to Remember

- The bread should be enclosed in a transparent, low-density polyethylene (LDPE) film to maintain freshness and prevent moisture loss. This recyclable packaging ensures product visibility.



Practical Activity 1.1.4: Selection and adjustment of tools and equipment for bread making



Notes to the trainer

- The trainer is supposed to demonstrate how to select and adjust tools and equipment used in bread making.
- For the effective delivery; it is recommended to avail various tools and equipment to be selected and adjusted.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to select and adjust tools and equipment used in bread making.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to select and adjust tools and equipment for bread making. While demonstrating, explain the selection criteria and adjustment procedure.

Step 4: Ask trainees to select and adjust tools and equipment for bread making, and monitor the procedures.

Step 5: Verify whether tools and equipment for bread making are well selected and adjusted, and provide feedback where necessary.

Step 6: Ask trainees to read key reading 1.1.4 in trainee manual



Points to Remember

- While selecting tools and equipment for bread making, consider the bread style and size to be made, budget, work area size countertop space to ensure you have enough room for mixing and preparing dough, ease of cleaning and durability.
- Sharp tools should be handled with care the same as electrical equipment (follow safety guidelines for operating mixers and ovens).
- Choose tools that are comfortable to use and efficient, especially for frequent baking.
- While adjusting tools and equipment for bread making first understand the tool or equipment i.e. be familiar yourself with the tool's functions and limitations, specific needs of the recipe, and know how to adjust settings (e.g., speed, temperature, time), always follow manufacturer's guidelines and be familiar with regular cleaning to prevent equipment malfunction and proper maintenance to ensure optimal performance.
- Don't be afraid to experiment with different settings and keep a record of adjustments and their outcomes.



Practical Activity 1.1.5: Selection of cleaning products and packaging materials used in bread making



Notes to the trainer

- The trainer is supposed to demonstrate how to select cleaning products and packaging materials used in bread making.
- For the effective delivery; it is recommended to avail cleaning products and packaging materials to be selected.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to select cleaning products and packaging materials used in bread making.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to select cleaning products and packaging materials used in bread making. While demonstrating, explain the selection criteria of cleaning products and packaging materials used in bread making.

Step 4: Ask trainees to select cleaning products and packaging materials used in bread making, and monitor the procedure.

Step 5: Verify whether cleaning products and packaging materials used in bread making are well selected and provide feedback where necessary.

Step 6: Ask trainees to read key reading 1.1.5 in trainee manual



Points to Remember

- It is important to follow the instructions on the label of each cleaning product carefully. Do not mix cleaning agents together, as this can create dangerous fumes. Be sure to rinse all surfaces thoroughly after cleaning them with a disinfectant.
- While selecting bread packaging materials, prioritize product protection, consider bread type, evaluate shelf-life goals, choose packaging that aligns with environmental goals (explore recyclable, biodegradable, or compostable options) and balance the cost of packaging with its benefits to the product and brand image.



Application of learning 1.1.

Prepare an activity in bread making workshop and ask each trainee to select tools, equipment, packaging materials and cleaning products used in bread making, and adjust tools and equipment for bread making.

Checklist:

S/N	Criteria	Indicator	Yes	No
1.	Tools and equipment for bread making are properly selected	1.1 Cleaning tools and/or equipment are selected		
		1. 2 Measuring tools and/or equipment are selected		

		1.3 Preparatory tools and/or equipment are selected		
		1.4 Processing tools and/or equipment are selected		
2.	Tools and equipment for bread making are correctly adjusted	2.1 Tools are adjusted		
		2.2 Equipment are adjusted		
3.	Materials used in bread making are properly selected	3.1 Cleaning products are selected		
		3.2 Packaging materials are selected		



Indicative content 1.2: Arrangement of Working Area for Bread Making



Duration: 3 hrs



Theoretical Activity 1.2.1: Description of the process of arranging work area



Notes to the trainer:

- Trainer may use small groups to describe the process of arranging the work area for bread making
- The use of drawings, pictures or videos as didactic materials while explaining the importance bread making work area arrangement is required.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer the following questions:

- i. According to you, describe cleaning methods applied while cleaning the work area for bread making.
- ii. What are the methods used to check the cleanliness of bread making work area?
- iii. Explain the importance of arranging the work area for bread making.

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings.

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 1.2.1 in trainee manual



Points to Remember

- A well-organized workplace offers numerous benefits. It primarily increases productivity, improves time management, enhances creativity, reduces stress and ensures a better health and safety for workers.



Practical Activity 1.2.2: Cleaning and arranging the work area for bread making



Notes to the trainer

- The trainer is supposed to demonstrate how to clean and arrange the work area for bread making.
- For the effective delivery; it is recommended to avail tools and cleaning products to be used while cleaning and arranging the work area for bread making.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to clean and arrange the work area for bread making.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to clean and arrange the work area for bread making. While demonstrating, explain the cleaning procedure and arrangement criteria.

Step 4: Ask trainees to clean and arrange the work area for bread making, and monitor the procedures.

Step 5: Verify whether the work area is properly cleaned and arranged, and provide feedback where necessary.

Step 6: Ask trainees to read key reading 1.2.2 in trainee manual



Points to Remember

- While preparing for cleaning, first prioritize safety. Always wear appropriate protective gear, such as gloves, goggles, and a mask.
- Handle chemicals with care and follow specific safety guidelines.

- Clean up spills and messes immediately to prevent bacteria growth and clean your workspace and equipment after each use to prevent buildup of food particles and residue.
- It is better to use hot water and soap to clean surfaces and utensils and use a food-safe disinfectant to sanitize surfaces.
- Pay attention to hard-to-reach areas like corners and crevices and store cleaned equipment in a clean, dry place.
- After cleaning, assess cleaning efficiency by applying visual inspection, swab test or other quick methods that help you to confirm that the work area is well cleaned.
- While arranging work area for bread making, ensure your workspace is clean and free of clutter, keep essential tools like a mixing bowl, measuring cups and spoons, a rolling pin, a spatula, and a baking sheet within easy reach, organize ingredients in a logical manner by grouping flours, yeasts, sugars, and other additives together, and provide adequate lighting for clear visibility, especially when measuring ingredients.



Application of learning 1.2.

Ask trainees to go to bread making workshop to clean and arrange the work area for bread making.

Checklist:

S/N	Criteria	Indicators	Yes	No
1	Cleaning methods are effectively applied	1.1 Dry cleaning is applied		
		1.2 Wet cleaning is applied		
2	Cleaning efficiency is properly checked	2.1 Visual inspection is done		
		2.2 ATP testing is done		
		2.3 Swab test is done		
3	Work area for bread making is appropriately arranged	3.1 Tools are arranged		
		3.2 Equipment are arranged		
		3.3 Materials are arranged		



Indicative content 1.3: Preparation of Ingredients for Bread Making



Duration: 2hrs



Theoretical Activity 1.3.1: Identification of ingredients for bread making



Notes to the trainer:

- Trainer may use small groups to identify ingredients for bread making
- The use of pictures as didactic materials while identifying bread ingredients is required.



Key steps:

While delivering this activity, pass through the following steps:

Step1: Introduce the activity and ask trainees to answer the following questions:

- What could be the main ingredients for bread making?
- What are other bread ingredients do you know?
- What are the roles of those ingredients said in (i) and (ii)?

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings.

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 1.3.1 in trainee manual



Points to Remember

- Make sure that you use the correct type of flour for your desired bread. All-purpose flour is versatile, but whole wheat, rye, or bread flour have specific properties.
- Don't assume the presence of ingredients based on the bread's appearance or name.

- Use salt to enhance flavor and control the rise but don't add too much salt, as it can inhibit the yeast's activity.
- Use sugar to feed the yeast and promote a quicker rise but not too much as it can make the bread sweet and dry.
- Use high-quality ingredients as this will help to ensure that your bread is delicious and has a good texture.
- Avoid using expired ingredients, as they may compromise the quality and safety of your bread.



Practical Activity 1.3.2: Preparation of bread ingredients



Notes to the trainer

- The trainer is supposed to demonstrate how to prepare bread ingredients.
- For the effective delivery; it is recommended to avail ingredients to be prepared for bread making.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to prepare the bread ingredients.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to prepare bread ingredients. While demonstrating, explain the procedure for preparing bread ingredients.

Step 4: Ask trainees to prepare bread ingredients, and monitor the procedures.

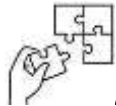
Step 5: Verify whether bread ingredients are accurately prepared and provide feedback where necessary.

Step 6: Ask trainees to read key reading 1.3.2 in trainee manual



Points to Remember

- Sieve wheat flour to make sure all impurities are removed
- Measure other ingredients carefully and make sure that you use adjusted measuring tools to ensure the correct proportions of ingredients and use.
- Use well cleaned containers while preparing ingredients to prevent contamination.



Application of learning 1.3.

Prepare an activity in bread making workshop and ask each trainee to prepare the ingredients to be used in bread making (sieve wheat flour and weigh ingredients).

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Wheat flour is properly sieved	1.1 Sieving tools are selected		
		1.2 All impurities are removed		
		1.3 Wheat flour is checked		
2	Ingredients are accurately weighed	2.1 The weighing scale is adjusted		
		2.2 Ingredients ratio are determined		



Learning outcome 1 end assessment

Written assessment

I. Read carefully the following statements and encircle the letter corresponding with the right answer.

1. The safety precaution measure to follow when using tools and equipment for making bread is to:
 - A. Keep an eye on the bread while it is in baking process.
 - B. Be careful not open the oven door too quickly during baking, as this can release a blast of hot steam.
 - C. Use sharp knives and other tools carefully.
 - D. Be aware of the heat of the oven and baking sheets.
 - E. All choices are correct**
 - F. None from the choices
2. A glass cleaner is a cleaning agent commonly used to:
 - A. Kill bacteria on surfaces in the workplace
 - B. Clean windows and mirrors**
 - C. Clean surfaces such as wooden counters, tables and equipment
 - D. Removing all grease and food residue from tools and equipment
3. One of the following equipment is used to automate bread making process:
 - A. Bread dough mixer
 - B. Bread dough proofer
 - C. Bread maker**
 - D. Oven
4. What are the main ingredients used in bread making from the list?
 - A. Milk powder, Pectin, wheat flour and yeast
 - B. Flour, yeast, water and salt**
 - C. Wheat Flour, baking powder, water and sugar
 - D. Fat, sugar, wheat flour and citric acid

II. The following statements are related to preparation of bread ingredients. Read them carefully and answer by **True** if the statement is correct or **False** if it is wrong.

1. Mixing wet and dry ingredients together at the same time will lead to quick bread dough expansion.....**False**
2. It is recommended to use warm liquids while mixing ingredients for activating yeast.....**True**

3. Dissolving sugar in warm water before adding it to the other ingredients will help to prevent it from crystallization in the bread.**True**
4. Sieving of wheat flour consists of passing the flour through sieve to remove only dust from flour.**False**
5. Bread ingredients cannot be mixed while there is no electricity as the mixing machine needs electrical power to work.**False**

III: Fill in gaps by appropriate word from the highlighted ones reflecting on wet and dry cleaning methods: (Sweeping, Scrubbing, Wiping, Vacuuming, Mopping.)

1. involves using a damp cloth or sponge to wipe away dirt, dust, and debris. It is a good general cleaning method for most surfaces.

Answer: Wiping

2. involves using a brush or sponge to remove dirt, dust, and debris from surfaces. It is a good way to clean heavily soiled surfaces.

Answer: Scrubbing

3. involves using a broom to remove dirt, dust, and debris from floors. It is a good way to quickly clean a large area.

Answer: Sweeping

IV. The table below contains some tools and equipment used in bread making (Column C) and their corresponding uses (Column B). Match the two columns by writing the correct answer in the provided space (Column A).

Column A	Column B	
1.....C.....	1. A machine used to mix bread dough especially helpful for mixing large batches of dough.	A.Kitchen scale
2.....D.....	2. Used for a variety of tasks in bread making, such as mixing the dough, scraping the sides of the bowl, and folding the dough	B.Proofer
3...F.....	3. Used to bake the bread dough	C.Dough mixer
4...B.....	4. Used rise the bread dough before baking	D.Spatula
5...A.....	5. It is essential for measuring ingredients accurately.	E.Oven
		F.Cooling rack

V. Re-arrange the following steps to show a logic sequence of bread making processing line.

1. Proof the loaves
2. Knead the dough
3. Proof the dough
4. Prepare the ingredients
5. Bake the loaves
6. Store the bread
7. Cool the loaves
8. Shape the dough
9. Package the bread

Answer:

1. Prepare the ingredients
2. Knead the dough
3. Proof the dough
4. Shape the dough
5. Proof the loaves
6. Bake the loaves
7. Cool the loaves
8. Package the bread
9. Store the bread

Practical assessment

KCC Bakery Ltd. is a company that makes bread. As the bread market demand increased in two weeks ago, the company management hired a new technician for making different bread products for customer satisfaction. Ask your trainees to help that new hired technician to prepare workplace and ingredients for bread making. The task should be performed within 3 hours and note that all materials, tools and equipment are available in KCC Bakery.

Checklist

S/N	Criteria	Indicator	Yes	No
1	Tools and equipment for bread making are properly selected	1.1 Tools are selected		
		1.2 Equipment are selected		
		1.3 Tools are adjusted		
		1. 3 Equipment are adjusted		
2	Materials for bread making are properly selected	2.1 Cleaning products are selected		
		2.2 Ingredients are selected		
		2.3 Packaging materials are selected		
3	Work area for bread making is appropriately arranged	3.1 Work area is cleaned		
		3.2 Tools and equipment are cleaned		
		3.3 Materials, tools and equipment are arranged		
		3.4 Cleanliness is checked		
4	Ingredients for bread making are appropriately prepared	4.1 Wheat flour is sieved		
		4.2 Other bread ingredients are prepared		
		4.3 All ingredients are weighed		



Further information to the trainer

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Learning Outcome 2: Make Dough



Indicative contents

2.1 Mixing of ingredients used in bread making

2.2 Kneading the dough for bread

2.3 Moulding or shaping of dough for bread

2.4 Proofing the dough for bread

Key Competencies for Learning Outcome 2: Make the Dough

Knowledge	Skills	Attitudes
● Description of methods for bread ingredients mixing ● Description techniques for kneading bread dough	● Mixing ingredients ● Kneading the dough ● Moulding the dough ● Shaping the dough ● Coating the dough and moulder ● Proofing the dough	● Being accurate while mixing ingredients ● Being careful while using dough mixer and proofer ● Being clean when shaping and coating the moulder to prevent contamination



Duration: 20 hrs

Learning outcome 2 objectives:



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

1. Describe appropriately bread ingredients mixing methods as applied in bread making
2. Mix effectively the ingredients for making bread
3. Describe appropriately bread dough kneading techniques as applied in bread making
4. Knead appropriately the dough for bread making
5. Mould appropriately the dough for bread making
6. Shape appropriately the dough for bread making
7. Coat appropriately the moulder for bread making

8. Proof effectively the dough for bread making



Resources

Equipment	Tools	Materials
• Dough mixer • Dough divider/rounder • Proofer • PPE • Working tables	• Spoon • Knives • Scrapers • Brushes • Weighing balance • Working table • Trays/baking sheets • Mould baking pans • Mixing bowls • White towel • Sponges • Cooking span	• Wheat flour • Table salt • Baking yeast • Brown sugar • Potable water • Fat • Cooking oil • Whole milk • Flavoring agents • Eggs



Advance Preparation:

Before delivering this learning outcome, you are recommended to:

- Avail an organized workshop
- Avail all materials and verify if they are not expired
- Prepare teaching aids and didactic materials (manuals/guides, task sheets, photos, audio-visuals and protocols)



Indicative content 2.1: Mixing of Ingredients Used in Bread Making



Duration: 5 hrs



Practical Activity 2.1.1: Mixing ingredients for bread making



Notes to the trainer

- The trainer is supposed to demonstrate how to mix bread ingredients.
- For the effective delivery, it is recommended to avail all materials, tools and equipment to be used while mixing bread ingredients.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to mix ingredients.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to mix ingredients for bread making. While demonstrating, explain the procedure for mixing bread ingredients.

Step 4: Ask trainees to mix bread ingredients, and monitor the procedures.

Step 5: Verify whether bread ingredients are well mixed and provide feedback where necessary.

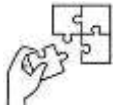
Step 6: Ask trainees to read key reading 2.1.2 in trainee manual



Points to Remember

- Ensure that all ingredients are accurately measured and the mixture is well done.
- Combine dry ingredients first: mix flour, sugar, salt, and any other dry ingredients together before adding the wet ingredients.
- Use warm (not hot) liquids, like milk or water, to activate the yeast and promote dough development.
- While mixing ingredients for bread making, do not over mix as it can lead to tough bread, do not use cold liquids as they will not activate the yeast properly, do not add too much

flour, it can make the bread dry and tough, allow the dough have sufficient time to rise for optimal texture and avoid poking or pressing on the dough while it's rising, as this can deflate it.



Application of learning 2.1.

Organize a trainees' field visit in a bakery nearby your school and ask each trainee to mix the ingredients for bread making and prepare a report.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread ingredients are properly mixed	1.1 Wet ingredients are mixed		
		1.2 Dry ingredients are mixed		
		1.3 Dry and wet ingredients are combined		
		1.4 Proper mixing method is applied		
2	Field visit report is well done	2.1 Trainee identification is mentioned		
		2.2 Company identification is mentioned		
		2.3 Key competences gained are described		
		2.4 Recommendations are mentioned		



Indicative content 2.2: Kneading the Dough for Bread



Duration: 5 hrs



Theoretical Activity 2.2.1: Description of techniques for dough kneading



Notes to the trainer:

- Trainer may use small groups to describe bread dough kneading techniques.
- The use of drawings, pictures or videos as didactic materials while describing dough kneading techniques is required.



Key steps:

While delivering this activity, pass through the following steps:

Step1: Introduce the activity and ask trainees to answer the following questions:

- ii. What is the purpose of kneading bread dough?
- iii. According to you, state and describe different techniques used in kneading bread dough.

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings and choose the correct answers

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 2.2.1 in trainee manual



Points to Remember

- The bread dough needs to be kneaded vigorously as it develops the gluten in the dough, giving it its structure. Scrape the sides of the bowl to ensure all the flour is incorporated.
- Don't over knead or under knead the dough because kneading for too long can result in tough bread whereas under kneaded dough will be weak and won't rise properly.



Practical Activity 2.2.2: Kneading the dough and checking its quality parameters



Notes to the trainer

- The trainer is supposed to demonstrate how to knead bread dough.
- For the effective delivery; it is recommended to avail all materials and tools to be used in bread dough kneading.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to knead the bread dough.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to knead the dough for bread. While demonstrating, explain the procedure for kneading dough.

Step 4: Ask trainees to knead the bread dough, and monitor the procedures.

Step 5: Verify whether the dough is properly kneaded and provide feedback where necessary.

Step 6: Ask trainees to read key reading 2.2.2 in trainee manual



Points to Remember

- While kneading the dough, use a clean and floured surface to prevent the dough from sticking and note that kneading with your hands is the most effective way to develop the gluten in the dough, be patient and continue until the dough is smooth and elastic, if the dough is too sticky, add a little flour at a time and rape the sides of the bowl occasionally to ensure even kneading.
- After kneading, let the dough rest for at least 15-20 minutes before shaping.
- Check for elasticity as the dough should be smooth, elastic, and slightly sticky.



Application of learning 2.2.

Organize a trainees' field visit to a bakery nearby your school and ask each trainee to knead the dough for bread making and check its quality parameters. Ask every trainee to do an individual report.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread dough is properly kneaded	1.1 A clean and floured surface is used		
		1.2 The sides of the bowl are scraped		
		1.3 Proper kneading technique is applied		
2	Quality parameters of bread dough are effectively checked	2.1 Smoothness is checked		
		2.2 Elasticity is checked		
		2.3 Stickiness is checked		
3	Field visit report is well done	3.1 Trainee identification is mentioned		
		3.2 Company identification is mentioned		
		3.3 Key competences gained are described		
		3.4 Recommendations are mentioned		



Indicative content 2.3: Moulding or Shaping of Dough for Bread



Duration: 5hrs



Practical Activity 2.3.1: Shaping the dough and coating the moulder



Notes to the trainer

- The trainer is supposed to demonstrate how to shape the dough and coat the moulder.
- For the effective delivery; it is recommended to avail all materials and tools to be used in bread dough shaping and moulder coating.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to shape the dough and coat the moulder

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to shape the dough and coat the moulder for bread making. While demonstrating, explain the procedures.

Step 4: Ask trainees to shape the dough and coat the moulder, and monitor the procedures.

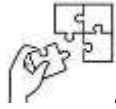
Step 5: Verify whether the dough is properly shaped and the moulder is well coated, and provide feedback where necessary.

Step 6: Ask trainees to read key reading 2.3.1 in trainee manual



Points to Remember

- Avoid using a moulder that is not clean, a dirty moulder can contaminate the dough and affect the bread's taste.
- While shaping bread dough use slightly moistened hands to prevent the dough from sticking, avoid overworking the dough as this can affect the texture and ensure the dough is shaped evenly for a uniform loaf.
- Don't overfill the mould as leaving some space for the dough to rise is essential for a good shape.
- Allow the shaped dough to rest for a few minutes before baking to relax the gluten.



Application of learning 2.3.

Prepare a trainees' practical activity in bread making workshop and ask each trainee to shape the bread dough and coat the moulder.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread dough is properly shaped	1.1 Hands are moistened		
		1.2 The size is respected		
2	Moulder is properly coated.	2.1 Moulder is selected		
		2.2 All sides of moulder are coated		
		2.2 Moulder is filled		



Indicative content 2.4: Proofing the Dough for Bread



Duration: 5 hrs



Practical Activity 2.4.1 Proofing the bread dough



Notes to the trainer

- The trainer is supposed to demonstrate how to proof the dough for bread.
- For the effective delivery; it is recommended to avail all materials, tools and equipment to be used in proofing the dough.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to proof the dough for bread.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to proof the dough for bread. While demonstrating, explain the dough proofing conditions.

Step 4: Ask trainees to proof the dough, and monitor the procedures.

Step 5: Verify whether the dough is properly proofed and provide feedback where necessary.

Step 6: Ask trainees to read key reading 2.4.1 in trainee manual



Points to Remember

- While proofing the bread dough monitor time, temperature and relative humidity as the main dough proofing conditions.
- Avoid drafts as they can disrupt the proofing process and prevent the dough from rising evenly.
- Check the dough regularly: the dough should rise significantly and feel light and airy.
- Avoid over proofing as if the dough rises too much, it can become dense and flavourless.

- Don't puncture the dough while proofing because this can deflate the dough and prevent it from rising.



Application of learning 2.4.

Organize a trainees' field visit in a bakery nearby your school and ask each trainee to proof the dough and monitor proofing conditions. Ask every trainee to prepare a report.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread dough is properly proofed	1.1 Dough is put in a proofer		
		1.2 Proofing time is set		
		1.3 A warm and humid environment is created		
		1.4 Relative humidity is monitored		
		1.5 Temperature is monitored		
2	Field visit report is well done	2.1 Trainee identification is mentioned		
		2.2 Company identification is mentioned		
		2.3 Key competences gained are described		
		2.4 Recommendations are mentioned		



Learning outcome 2 end assessment

Written assessment

I. Below there are steps showing how the modified straight dough method works while mixing bread ingredients. Arrange them properly

- 1) Combining fat, sugar, and salt
- 2) Blooming the yeast
- 3) Kneading and folding
- 4) Incorporating liquids
- 5) Adding flour
- 6) Adding eggs

Answer:

- 1) Blooming the yeast
- 2) Combining fat, sugar, and salt
- 3) Adding eggs
- 4) Incorporation of liquids
- 5) Adding flour
- 6) Kneading and folding

II. Read carefully the following statements related to the purpose of coating bread moulder and answer by **True** if the statement is correct, otherwise **False**.

The purpose of coating bread moulders is to:

- a) Improve bread elasticity.**False**
- b) Get a better bread crumb.**False**
- c) Make easier to clean moulds..... **True**
- d) Decrease time for baking..... **False**
- e) Make bread being released easily from the mould after baking.**True**

III. Read the following statements and circle the letter corresponding with the correct answer.

1. Bread dough proofing is generally carried out at:
 - A. 20-30°C and at 85% relative humidity
 - B. **30-35°C and at 85% relative humidity**
 - C. 30-35°C and at 40% relative humidity
 - D. 20-30°C and at 40% relative humidity

2. One of the following physical changes does **NOT** occur during bread dough fermentation
 - A. Increase in volume due to production of CO₂
 - B. Increase in temperature
 - C. Loss of moisture
 - D. **Increase in dough hardness**
3. Moulding involves three separate steps as follow:
 - A. (i) curling; (ii) sheeting and (iii) scaling
 - B. (i) sheeting; (ii) scaling and (iii) curling
 - C. **(i) sheeting; (ii) curling; and (iii) scaling**
 - D. (i) scaling; (ii) curling; and (iii) sheeting
4. Bread baking quality is determined by :
 - A. The physical properties of dough
 - B. Flour water absorption
 - C. Bread volume
 - D. The color of crumb and crust
 - E. **All answers are correct**
 - F. All answers are wrong.
5. The following are the purposes of kneading the bread dough **EXCEPT**:
 - A. Developing gluten,
 - B. Retaining gas bubbles
 - C. **Dividing the bulk dough in desired shape and size**
 - D. Enhancing flavour and texture

IV. The table below describes the physical properties of the bread dough. Match the physical properties in the **Column C** with their corresponding meaning in **Column B** and write the answer in the reserved place (**Column A**).

Column A	Column B	Column C
1 =C	1. The dough's ability to stretch and return to its original shape. This affects the bread's rise and texture.	A. Viscosity
2 =A	2. The thickness or resistance to flow of a fluid. It's crucial for handling and shaping.	B. Tenacity
3 = E	3. The dough's ability to stretch without breaking. This is related to gluten development.	C. Elasticity
		D. Stickiness
		E. Extensibility

Practical assessment

In your school there is a canteen where both school staff and trainees take breakfast and tea break. The management of the canteen need to serve the bread produced by food processing trainees to the clients because the canteen's supplier failed to meet the requirements. You are asked to make the bread dough that will be used in production of the ordered bread. The task should be performed within 3 hours and note that all materials, tools and equipment are available in food processing workshop.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread ingredients are properly mixed	1.1 Ingredients are prepared		
		1.2 Mixing method is chosen		
		1.3 The chosen method is applied		
		1.4 Homogenous dough is obtained		
2	Bread dough is properly kneaded	2.1 The chosen kneading technique is applied		
		2.2 Physical properties are checked		
		2.3 Chemical properties are checked		
		2.4 Sensory properties are checked		
3	Bread dough is properly molded/shaped	3.1 Dough is molded		
		3.2 Shaping is done		
		3.3 Molds are coated		
4	Proofing is correctly done	4.1 Proofing conditions are set		
		4.2 Proofing process is monitored		
		4.3 Maximum proofing level is achieved		

END



Further information to the trainer

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Learning Outcome 3: Bake the dough



Indicative contents

3.1 Baking the bread dough

3.2 Coating the bread

3.3 Cooling the bread

3.4 Checking the quality of the bread

Key Competencies for Learning Outcome 3: Bake the Dough

Knowledge	Skills	Attitudes
● Identification of bread baking conditions	● Baking the bread ● Coating the bread ● Cooling the bread ● Checking the bread sensory attributes	● Being careful while baking the bread ● Having cleanliness while coating the bread to reduce the risks of contamination ● Being sensitive while checking the bread quality parameters



Duration: 15 hrs

Learning outcome 3 objectives:



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

1. Identify correctly bread baking conditions
2. Bake appropriately the bread basing to bread baking conditions
3. Coat properly the bread according to the product standard
4. Cool appropriately the bread according to the product standard
5. Check effectively bread sensory attributes according to the product standard



Resources

Equipment	Tools	Materials
● Baking oven ● Bread slicer ● Cooling racks ● Working table	● Baking sheets ● Brushes ● Mould baking pans ● Oven gloves ● Thermometers ● Timer	● Aluminum foils ● Boiled water ● Bread dough ● Electrical power supply ● Fire wood ● Honey ● Melted fat ● Sugar



Advance Preparation:

Before delivering this learning outcome, you are recommended to:

- Avail a well-organized workshop
- Make sure that a baking oven is available in good working conditions
- Avail materials and verify if they are not expired
- Prepare teaching aids and didactic materials (manuals/guides, task sheets, photos, audio-visuals and protocols)



Indicative content 3.1: Baking the Bread Dough



Duration: 4hrs



Theoretical Activity 3.1.1: Identification of bread baking conditions



Notes to the trainer:

- Trainer may use small groups to identify bread baking conditions.
- The use of drawings, pictures or videos as didactic materials while identifying bread baking conditions during baking process is required.



Key steps:

While delivering this activity, pass through the following steps:

Step1: Introduce the activity and ask trainees to answer the following questions:

- i. What do you think is the purpose of baking the bread?
- ii. Explain briefly bread baking conditions you know.

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 3.1.1 in trainee manual



Points to Remember

- While baking the bread dough, make sure you respect temperature range as it affects the rate of yeast activity and dough rise and use a thermometer to ensure accuracy.
- Keep an eye on the baking time to prevent over or under-baking. Use the visual cues provided by the recipe, such as crust colour and texture.
- Control the humidity which is necessary for dough to rise properly by covering the dough with a damp towel or place a bowl of hot water nearby; avoid excessive humidity as this can lead to dough becoming sticky or soggy.



Practical Activity 3.1.2: Baking the bread dough



Notes to the trainer

- The trainer is supposed to demonstrate how to bake the bread.
- For the effective delivery; it is recommended to avail tools and equipment to be used in baking the bread dough.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to bake the bread dough.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to bake the bread dough. While demonstrating, explain the procedure.

Step 4: Ask trainees to adjust and monitor baking conditions, and monitor the procedures.

Step 5: Verify whether bread is well baked, and provide feedback where necessary.

Step 6: Ask trainees to read key reading 3.1.2 in trainee manual



Points to Remember

- Adjust baking time and temperature based on the desired loaf size and crust texture.
- Keep a watchful eye on the bread dough throughout the baking process. Check for browning, rising, and any signs of overcooking or under cooking. If the bread is browning too quickly, reduce the oven temperature. If the bread is not rising enough, increase the oven temperature.
- Don't open the oven frequently as opening the oven door can cause the dough to deflate.
- If the dough is not rising properly, investigate the cause and adjust the conditions accordingly.



Application of learning 3.1.

Prepare a trainees' practical activity in pastry and bread making workshop in your own school and ask each trainee to bake the bread dough.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread dough baking conditions are properly adjusted	1.1 Baking time is adjusted		
		1.2 Baking temperature is adjusted		
		1.3 Humidity is adjusted		
2	Bread dough baking conditions are properly monitored	2.1 Baking time is monitored		
		2.2 Baking temperature is monitored		
		2.3 Humidity is monitored		



Indicative content 3.2: Coating the Bread



Duration: 4 hrs



Practical Activity 3.2.1: Performing bread coating



Notes to the trainer

- The trainer is supposed to demonstrate how to coat the bread.
- For the effective delivery; it is recommended to avail all materials, tools and equipment to be used in coating the bread.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go bread making workshop to coat the bread.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to coat the bread. While demonstrating, explain the bread coating procedure.

Step 4: Ask trainees to coat the bread, and monitor the procedures.

Step 5: Verify whether the bread is well coated and provide feedback where necessary.

Step 6: Ask trainees to read key reading 3.2.1 in trainee manual



Points to Remember

- While coating bread, make sure you coat the fresh bread. Prepare the bread properly and apply the coating evenly by using a brush, spoon, or your fingers to distribute the coating uniformly. Allow the coated bread to dry or set before cooking or serving.
- Don't overcoat the bread as too much coating can be overwhelming and affect the texture.
- Choose the right coating by considering the flavour of the bread and the desired taste of the finished product.



Application of learning 3.2.

Prepare a practical activity and ask trainees to go in food processing workshop to coat the bread.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Materials and tools to be used in bread coating are properly selected	1.1 Brush is selected		
		1.2 Coating is selected		
2	Bread is properly coated	2.1 Coating is prepared		
		2.2 Even distribution of coating is done		



Indicative content 3.3: Cooling the Bread



Duration: 4 hrs



Practical Activity 3.3.1: Performing bread cooling



Notes to the trainer

- The trainer is supposed to demonstrate how to cool the bread.
- For the effective delivery; it is recommended to avail tools and equipment to be used in cooling the bread.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to cool the bread.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to cool the bread. While demonstrating, explain the bread cooling procedure.

Step 4: Ask trainees to cool the bread, and monitor the procedure.

Step 5: Verify whether the bread is well cooled and provide feedback where necessary.

Step 6: Ask trainees to read key reading 3.3.1 in trainee manual



Points to Remember

- While cooling the bread, let it cool completely; allow the bread to cool naturally to room temperature before slicing or storing. Place the bread on a wire rack to promote airflow and prevent moisture buildup.
- Don't place the bread in the refrigerator to prevent the bread to dry out and make it stale.
- Once cooled, store the bread in a bread bin or airtight container to maintain freshness.
- Don't slice warm bread as it can cause it to crumble or become uneven.



Application of learning 3.3.

Prepare a practical activity and ask trainees to go in food processing workshop to cool the bread.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread as properly de-panned	1.1 Baking pan containing bread is removed from oven		
		1,2 Bread is removed from, the pan		
2	Bread is properly cooled	2.1 Wire rack is prepared		
		2.2 Cooling area is conditioned		
		2.3 Bread to be cooled are deposited on cooling rack		



Indicative content 3.4: Checking the Quality of the Bread



Duration: 3 hrs



Practical Activity 3.4.1: Checking the bread sensory attributes



Notes to the trainer

- The trainer is supposed to demonstrate how to check the bread sensory attributes.
- For the effective delivery; it is recommended to avail tools and equipment to be used in checking the bread sensory attributes.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to check the bread sensory attributes.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to check the bread sensory attributes. While demonstrating, explain the bread sensory attributes checking procedure.

Step 4: Ask trainees to check the bread sensory attributes, and monitor the procedures.

Step 5: Verify whether the bread sensory attributes are well checked and provide feedback where necessary.

Step 6: Ask trainees to read key reading 3.4.1 in trainee manual



Points to Remember

- While checking the quality of bread, use all your senses: engage your sight, smell, taste, and touch to evaluate the bread's appearance, aroma, flavour, and texture.
- Evaluate the bread based on its intended use and the preferences of your target audience.
- Avoid letting personal preferences cloud your judgment and focus on the facts and avoid making subjective judgments.
- Record your observations and impressions to track changes over time.



Application of learning 3.4.

Prepare a trainees' practical activity in pastry and bread making workshop in your own school and ask each trainee to check the bread sensory attributes.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread sensory attributes are correctly checked	1.1 Visual Attributes are checked		
		1.2 Tactile attributes are checked		
		1.3 The aroma is checked		
		1.4 Taste attributes are checked		
		1.5 Auditory attributes are checked		
		1.6 Overall quality is checked		



Learning outcome 3 end assessment

Written assessment

I. Read the following statements and encircle the letter corresponding with the correct answer

1. Standard bread is typically baked at
 - A. 150°C to 200°C.
 - B. 88°C to 99°C
 - C. 175°C to 245°C**
 - D. 99°C to 245°C
2. Bread is done when it reaches an internal temperature of
 - A. 190°C to 210°C
 - B. 88°C to 99°C**
 - C. 88°C to 190°C
 - D. 99°C to 210°C
3. What is the primary purpose of yeast in bread baking?
 - A. To add flavor
 - B. To improve texture
 - C. To leaven the dough**
 - D. To make the bread brown
4. What role does salt play in bread baking?
 - A. It helps in dough hydration
 - B. It enhances the yeast activity
 - C. It strengthens gluten and adds flavor**
 - D. It prevents the bread from browning
5. At what stage in bread baking does the Maillard reaction primarily occur?
 - A. During kneading
 - B. During the first rise
 - C. During baking**
 - D. During cooling
6. What role does steam play in the baking process of bread?
 - A. It helps the bread to rise more quickly.
 - B. It creates a crispier crust by forming a thin layer of moisture on the surface.**
 - C. It accelerates the browning of the crust.
 - D. It softens the interior of the bread.
7. What effect does a high baking temperature have on bread?
 - A. It causes the bread to be undercooked inside.
 - B. It leads to a rapid rise and a thicker crust.**
 - C. It makes the bread too dense and heavy.
 - D. It prevents the bread from rising at all.

8. What is the purpose of scoring bread before baking it?
- A. To create a decorative pattern on the bread
 - B. To help the bread rise evenly and control where it expands**
 - C. To enhance the bread's flavor
 - D. To make the crust more uniform

II. Read the following statements related to bread coating and cooling and answer by TRUE if the statement is correct or FALSE if it is wrong.

- a) Brushing bread with an egg wash before baking helps to give it a shiny, golden crust.

Answer: True

- b) Coating bread dough with flour before baking helps to prevent sticking and creates a rustic appearance. **Answer: True**
- c) Bread should be covered while cooling to keep the crust soft and crisp. **Answer: False**
- d) Applying butter or a glaze to the crust after baking can add flavor and improve the texture of the bread. **Answer: True**
- e) Cooling bread in a hot, humid environment can help it stay moist and prevent it from drying out. **Answer: False**
- f) Bread should be cooled on a cutting board to make slicing easier. **Answer: False**
- g) Adding a sprinkle of seeds or oats on top of bread before baking can enhance both flavor and texture. **Answer: True**
- h) Bread should be cooled completely on a wire rack to prevent it from becoming soggy. **Answer: True**
- i) It is acceptable to cool bread in the pan for a few minutes before transferring it to a wire rack. **Answer: True**
- j) The purpose of allowing bread to cool completely before slicing is to ensure that the texture sets properly. **Answer: True**

III. In the table below, match each quality check (**Column C**) with its correct description or method (**Column B**). Write the answer in the reserved place (**Column A**)

Column A: Answers	Column B: Quality	Column C: Description
		A. Crumb texture
1 = C	1. Should have a pleasant, toasty, or nutty aroma, depending on the bread type.	B. Crust colour
2 = G	2. The bread should taste fresh, with no staleness or dryness.	C. Crust aroma
3 = A	3. The crumb should be moist, tender, and slightly springy to the touch.	D. Bread volume
4 = B	4. Should be evenly browned, ranging from golden to deep brown, depending on the type of bread.	E. Crumb structure
		F. Crust crispiness
		G. Bread freshness

IV. Choose the correct word from brackets to fill in the empty space

1. After baking, bread should be cooled on a wire rack to allow (water/air/heat) circulation. air
2. Proper cooling is essential to prevent the bread from becoming (soggy/mouldy) on the inside. soggy
3. The crust for a well baked bread should be golden (dark, brown) in color and (tender/crisp) and firm texture. brown, crisp

V. The following is the procedure for bread cooling. Arrange properly the steps

1. Check for proper cooling
2. Cool the bread completely
3. Place bread on a wire cooling rack
4. Remove bread from the oven
5. Remove bread from the pan immediately

ANSWER

1. Remove bread from the oven
2. Remove bread from the pan immediately
3. Place bread on a wire cooling rack

4. Cool the bread completely
5. Check for proper cooling

Practical assessment

Suppose that in your school there is a production unit that produces food products including bread. The management of the production unit hires you as a bread making technician and request you to go in production unit's bakery to bake the bread which will be sold in staff canteen. The task should be performed within 3 hours and note that all materials, tools and equipment are available in production unit's bakery.

Checklist

S/N	Criteria	Indicator	Yes	No
1	Bread is properly baked	1.1 Baking time is set		
		1.2 Humidity is created		
		1.3 Baking temperature is monitored		
2	Bread is properly coated	2.1 Brush for coating is prepared		
		2.2 Coating is prepared		
		2.3 Coating is applied		
3	Bread is properly cooled	3.1 Bread is removed from baking pan		
		3.2 Cooling rack is prepared		
		3.3 Cooling area is conditioned		
4	Bread sensory attributes are adequately checked	4.1 Visual attributes are checked		
		4.2 Tactile attributes are checked		
		4.3 Aroma attributes are checked		
		4.4 Auditory attributes are checked		
		4.5 Taste attributes are checked		
		4.6 Overall quality attributes are checked		

END



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Learning Outcome 4: Store the Bread



Indicative contents
4.1 Packaging the bread
4.2 Labelling the bread
4.3 Storing the bread

Key Competencies for Learning Outcome 4: Store the Bread

Knowledge	Skills	Attitudes
• Description of bread labelling information	• Packaging the bread • Labelling the bread • Baking the bread	• Being precise while packaging the bread • Being vigilant while labelling the bread



Duration: 5 hrs



Learning outcome 3 objectives:

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

1. Package properly the bread respecting bread packaging requirements
2. Describe correctly bread labelling information
3. Label properly the bread according to labelling requirements
4. Store effectively the bread according to storage requirements



Resources

Equipment	Tools	Materials
• Cooling racks • PPE • Working tables	• Colander • Weighing scales • Serrated knives	• Packaging materials • Cling film • Aluminium foils

• Trolleys	• Plates • Waste bin • Hygrometer	• Scotch • Glue • Labels • Sanitizers.
 Advance Preparation: Before delivering this learning outcome, you are recommended to: • Avail packaging materials and labels • Prepare photos, audio-visuals and protocols • Avail an organized workshop • Avail a conditioned store room		



Indicative content 4.1: Packaging the Bread



Duration: 2 hrs



Practical Activity 4.1.1: Performing bread packaging



Notes to the trainer

- The trainer is supposed to demonstrate how to package the bread.
- For the effective delivery; it is recommended to avail all materials, tools and equipment to be used in packaging the bread.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to package the bread.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to package the bread. While demonstrating, explain the bread packaging procedure.

Step 4: Ask trainees to package the bread and monitor the procedures.

Step 5: Verify whether the bread is well packaged and provide feedback where necessary.

Step 6: Ask trainees to read key reading 4.1.1 in trainee manual



Points to Remember

- Use food-safe packaging materials, ensure that the packaging materials are safe for direct contact with food and prevent contamination.
- Select packaging material that is suitable for the type of bread, its size, and the desired shelf life.
- Securely seal the packaging to prevent air and moisture from entering, which can affect the dough's quality.
- Use packaging materials that are environmentally friendly and sustainable.



Application of learning 4.1.

Organize a trainees' practical activity in your school's food processing workshop and ask each trainee to go in bread and pastry workshop to package the bread.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread is properly packaged	1.1 Packaging materials are selected		
		1.2 Filling is done		
		1.3 Sealing is done		
	Observation			



Indicative content 4.2: Labelling the Bread



Duration: 2 hrs



Theoretical Activity 4.2.1: Description of bread labelling information



Notes to the trainer:

- Trainer may use small groups to describe bread labelling information.
- The use of pictures as didactic materials while describing bread labelling information is required.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer the following questions:

- i. What is the purpose of labelling the bread?
- ii. Describe labelling information to be put on bread label.

Step 2: Ask trainees to write the findings on papers, flip chart, blackboard or white board.

Step 3: Facilitate trainees to present their findings.

Step 4: Provide the expert view and clarify ideas by using didactic materials.

Step 5: Address any questions or concerns.

Step 6: Ask trainees to read the key reading 4.2.1 in trainee manual



Points to Remember

- Common bread labelling information include ingredients (a complete list of ingredients, listed in descending order of quantity), net weight, best-by dates, nutritional information, manufacturer address, country of origin, allergen warnings and storage instructions.



Practical Activity 4.2.2: Performing bread labelling



Notes to the trainer

- The trainer is supposed to demonstrate how to label the bread.
- For the effective delivery; it is recommended to avail all materials and tools to be used in labelling the bread.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to label the bread.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to label the bread. While demonstrating, explain the bread labelling procedure.

Step 4: Ask trainees to label the bread, and monitor the procedures.

Step 5: Verify whether the bread is well labelled and provide feedback where necessary.

Step 6: Ask trainees to read key reading 4.2.2 in trainee manual



Points to Remember

- Use clear and legible fonts to ensure the text is easy to read, especially for consumers with visual impairments.
- Verify that all the details on the label are correct and up-to-date.
- Use appropriate language: tailor the language to your target audience, considering their level of understanding and cultural preferences.
- Make sure to include all the required elements, such as ingredients, nutritional facts, allergens, and storage instructions.
- Adhere to local and international food labeling regulations to avoid legal issues.



Application of learning 4.2.

Organize a trainees' activity in a bread and pastry making workshop and ask each trainee to label the bread.

Checklist:

S/N	Criteria	Indicator	Yes	No
	Bread is effectively labeled	1.1 Labels are prepared		
		1.2 All information is mentioned		
		1.3 Labels are attached		



Indicative content 4.3: Storing the Bread



Duration: 1hr



Practical Activity 4.3.1: Performing bread storing



Notes to the trainer

- The trainer is supposed to demonstrate how to store the bread and monitor storage conditions.
- For the effective delivery; it is recommended to avail tools and equipment to be used in storing the bread.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to go to bread making workshop to store bread and monitor its storage conditions.

Step 2: Explain the task and provide clear work instruction (PPE, Time allocated)

Step 3: Demonstrate how to cool the bread. While demonstrating, explain the bread cooling procedure.

Step 4: Ask trainees to store the bread and monitor storage conditions, and monitor the procedure.

Step 5: Verify whether the bread is well stored and provide feedback where necessary.

Step 6: Ask trainees to read key reading 4.3.1 in trainee manual



Points to Remember

- Before storing the bread, verify if the is finely cooled to prevent moisture buildup.
- Avoid wrapping bread too tightly, as this can prevent air circulation and lead to spoilage.
- Don't expose the bread to excessive air as it can cause it to dry out and become hard.
- During storage time, check for mold regularly by inspecting it for signs of mold, discoloration, or an unpleasant odor especially if it has been stored for a long time.



Application of learning 4.3.

Organize a trainees' field visit in a bakery located nearby your school and ask each trainee to store the bread and monitor its storage conditions.

Checklist:

S/N	Criteria	Indicator	Yes	No
1	Bread is properly stored	1.1 Storage temperature is monitored		
		1.2 Relative humidity is controlled		
		1.3 Storage time is specified		
		1.4 Records are kept		
2	Field visit report is well done	2.1 Trainee identification is mentioned		
		2.2 Company identification is mentioned		
		2.3 Key competences gained are described		
		2.4 Recommendations are mentioned		



Learning outcome 4 end assessment

Written assessment

I. Read the following statements and encircle the letter corresponding with the correct answer.

1. What is the best way to store bread to keep it fresh for the longest time?

- A) In the refrigerator
- B) In a plastic bag at room temperature
- C) In a bread box

D) In the freezer

2. Which method is most effective for preventing bread from becoming stale?

- A) Keeping it in a warm, sunny spot
- B) Wrapping it tightly in foil
- C) Storing it in a paper bag

D) Placing it in an airtight container

3. How can you revitalize stale bread?

- A) Microwave it for a few minutes
- B) Soak it in water and then bake it

C) Place it in a preheated oven for a few minutes

D) Freeze it and then thaw it

4. Why is it not recommended to store bread in the refrigerator?
- A) It causes the bread to become too soft
 - B) It accelerates the staling process due to the cool, dry air**
 - C) It makes the bread taste too sweet
 - D) It attracts mold
5. Which of the following is the right purpose of bread packaging?
- A) To improve the taste of the bread
 - B) To protect the bread from external factors like moisture and contamination**
 - C) To increase the weight of the bread
 - D) To add nutritional value to the bread
6. What is a common feature of resealable bread packaging?
- A) It helps the bread stay fresh for a longer time**
 - B) It changes the flavor of the bread
 - C) It is designed to keep bread warm
 - D) It adds to the cost without any benefits
7. Which of the following is a common environmental concern related to bread packaging?
- A) It can cause bread to expire faster
 - B) It often uses single-use plastics that are not biodegradable**
 - C) It is made from expensive materials
 - D) It prevents bread from being sliced properly
8. Why do some bread packages have small holes in the packaging?
- A) To let moisture escape and prevent mold growth**
 - B) To help the bread smell better
 - C) To let the customer feel the bread before buying
 - D) To make the bread last longer
9. What does the "best before" date on bread packaging indicate?
- A) The date after which the bread should be thrown away
 - B) The date the bread was baked
 - C) The period during which the bread is at its freshness**
 - D) The packaging expiry date.

II. Read the following statements and answer by TRUE if the statement is correct, otherwise FALSE.

1. The ingredients listed on bread packaging must be in order of their quantity, from highest to lowest.**True**

2. The term "whole grain" on bread packaging guarantees that 100% of the flour used is whole grain..... **False**
3. Bread labeled as "multigrain" means it is healthier than white bread..... **False**
4. The "best before" date on bread packaging indicates when the bread will become unsafe to eat. **False**
5. Bread labeled as "gluten-free" is safe for individuals with celiac disease. **True**
6. Nutritional information on bread packaging must include details such as calories, fat, and carbohydrates..... **True**
7. If bread packaging says "no preservatives," it means the bread will spoil faster..... **True**

III. Match the bread packaging and storage methods (Column C) with their corresponding descriptions (Column B) in the table below. Write the answer in the provided place (Column A).

Column A	Column B: Description	Column C: Bread packaging and storage methods
1 = G	1. It can cause the bread to dry out and become stale more quickly due to the crystallization of starches.	A. Plastic bread bags
2 = B	2. Used for storing bread for extended periods	B. Freezing bread
3 = A	3. Ideal for soft breads to keep them moist and fresh.	C. "Best before" date
4 = F	4. It provides a cool, dry environment while allowing some airflow, helping to maintain the bread's texture.	D. Resealable packaging
		E. Paper bread bags
		F. Bread box
		G. Refrigerating bread

Practical assessment

Suppose that in your school there is a production unit that produces food products including bread. The management of the production unit hires you as a bread making technician and request you to go in production unit's bakery to store bread which will be sold in staff canteen. The task should be performed within 3 hours and note that all materials, tools and equipment are available in production unit's bakery.

Checklist

S/N	Criteria	Indicator	Yes	No
1	Bread is properly packaged	1.1 Packaging materials are prepared		
		1.2 Bread filling is done		
		1.3 Sealing is done		
2	Bread is correctly labelled	2.1 Labelling information is mentioned		
		2.2 Labels are attached		
3	Bread is properly stored	3.1 Store room is prepared		
		3.2 Storing conditions are monitored		

END



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