FOOD AND NUTRITION

GRADE 9 2020

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Introduction.

The Lesotho General Certificate of Secondary Education (LGSCE) Food and Nutrition syllabus introduces both theoretical and practical aspects of buying, preparing and serving food. It helps learners to deal with diet and health in everyday life, through the syllabus, learners study the nutritional value of basic foods and develop the skills and knowledge required to produce balanced family meals. Consumer awareness on issues related to food as well as high standards of personal and kitchen hygiene and safety, especially when learners put their knowledge into practice, in order to produce nutritious, creative and enjoyable dishes.

The Grade 9 syllabus is designed to support learners in becoming:

- confident in working with information and ideas- their own and others;
- responsible for themselves, responsive to and respectful of others;
- reflective as learners, developing their ability to learn;
- innovative equipped for new and future challenges; and
- Engaged intellectually and socially, ready to make difference.

The **Grade 9 Syllabus Food and Nutrition qualification** is accepted by universities and employers as proof of knowledge and understanding of food and nutrition. Learners will acquire variety of skills, body of knowledge and value and attitudes including:

- manipulation;
- investigation;
- decision making;
- critical thinking;
- investigation;
- observation;
- investigation;
- honesty;
- patience and tolerance;
- responsibility;
- measurement; and
- effective communication.

The Grade 9 Food and Nutrition is accepted by university and employers as proof of knowledge and understanding of food and nutrition. Successful LGCSE Food and Nutrition learners gain lifelong skills including:

- An understanding of nutrition and of health problems related diet.
- An understanding of how socio-economic factors affect diet.
- An awareness of how eating patterns and dietary needs depend on age and social group.
- An awareness of how the position of the consumer differs in developed and less developed economies.
- The ability to assess the effectiveness and validity of claims made by advertisers.
- Aesthetic and social sensitivity to dietary patterns
- An interest in the creative aspect and enjoyment of food.
- Skills necessary for food preparation and preservation.
- The ability to organise and manage family food resources and to use food sensibly in everyday life.
- Knowledge of safety and hygiene requirements.

Learners will also develop the ability to apply scientific skills, principles, methods and demonstrate their appreciation of Food and Nutrition as profitable enterprise to the individual and family.

INCLUSION

Disabled learners may be able to complete this syllabus provided facilities are available for them.

1. **METHODOLOGY**

The underlying for the teaching of the content in this syllabus is learner centered and competence based approaches. There is a large emphasis on the practical elements of the syllabus, and this should be reflected in the way the syllabus is taught. These approaches should take in to consideration different learning styles of individual learner while developing a wide range of skills and values and attitudes. Learner centred and demonstration should play a major in this syllabus.

ASSESSMENT AT A GLANCE

For the LGCSE Food and Nutrition, candidates take two compulsory components: Paper 1 theory and paper 2 Practical Test.

Paper 1 Theory	**2 hours**
Written paper consisting of short-answers, structured questions and open-ended essay questions.	
50% of total marks	**100 marks**

Paper 2 Practical Test	**2 hours 30 minutes with Planning Session of 1 hour 30 minutes**
Candidates have a planning session of 1 hour 30 minutes one week before the practical test of 2 hours and 30 minutes. At the start of the planning session, candidates are given their allocated test question (as detailed in the confidential instructions) and three preparation sheets. At the end of the planning session, all three preparation sheets are returned to the Practical examiner. At the start of the practical test, the preparation sheets are returned to the candidate.	
50% of total marks	**100 marks**

SYLLABUS AIMS AND ASSESSMENT OBJECTIVES

The aims of this syllabus describe the educational purpose of a syllabus in Food and Nutrition for the LGCSE Examination. The aims are to:

1. Develop candidates' understand of nutrition and health problems associated with diet.
2. Develop candidates' understanding of eating patterns and dietary needs, both for people of different ages and for differing groups within society.
3. Develop candidates' interest in the creative side and enjoyment of food and the skills necessary for food preparation and food preservation.
4. Develop candidates' understanding and awareness of how socio-economic factors affect diet.
5. Encourage candidates to develop aesthetic, psychological, physiological and social sensitivity to dietary patterns.
6. Develop candidates' food-related knowledge and skills so that they can organise and manage family resources effectively according to the needs and lifestyles of family members.

7. Develop candidates' ability to make informed judgements and choices about the use of food available to the family unit in everyday life.
8. Develop candidates' awareness of how consumer situation differs in developed and under-developed economies and how to assess the effectiveness and validity of claims made by advertisers.
9. Develop candidates' awareness of relevant mandatory and other necessary safety and hygiene requirements.
10. Develop candidates' entrepreneurial knowledge and skills to standardize and scale recipes, cost and market food products.

Assessment objectives

AO 1 Knowledge with understanding

Candidates are expected to:

- Use scientific and technological vocabulary and terminology correctly
- Show their understanding how diet and nutritional requirements are affected by social, economic, state of health and environment factors
- Show their understanding of scientific principles, definitions and theories.
- Choose suitable equipment and tools and use them correctly.
- Show their understanding of safety and hygiene rules and regulations.
- Show their understanding of basic quantities and methods and of the importance accurate measurement.
- Show awareness of consumer rights and responsibilities in buying food products.

AO2 Handling informed and solving problems

Candidates are expected to:

- Read and interpret information
- Translate information from one form to another
- Follow and give instructions
- Make use of numerical and other data.
- Organise and manage time, money, energy/effort, materials, equipment and tools and interest according to stated criteria for a given situation.
- Estimate and measure accurately area, shape, size, capacity, quantity, amount, weight, time and temperature.

AO 3 Experimental skills and investigations

Candidates are expected to:

- Identify problems
- Follow and give instructions
- Test and compare methods, materials and equipment used in food preparation
- Find and interpret evidence for making judgements and choices.
- Give reasons for judgements and choices in the light of evidence.
- Identify prioritieo

- Assess and evaluate the effectiveness of the course of action.
- Observe and record observations.

Relationship between assessment objectives and components

Assessment objective	**Paper 1 (%)**	**Paper 2 (%)**	**Approx. % total qualification**
AO 1 Knowledge with understanding	60	15	40
AO 2 Handling information and solving problems	20	60	40
AO 3 Experimental skills and investigations	20	25	20

Grade descriptors

ECOL provides grade descriptions to give an indication of what a candidate must achieve for a particular grade.

Grade A

To achieve an A grade, a candidate must show:

- Critical awareness and intelligent understanding of scientific and practical concepts in the syllabus.
- Excellent ability to select appropriate dishes and organise time.
- A good variety of skills needed for preparation.

Grade C

To achieve a C grade, a candidate must show:

- Some critical awareness and understanding of the scientific and practical concepts in the syllabus.
- Reasonable ability to select appropriate dishes.
- Some skills needed for preparation.

Grade F

To achieve an F grade a candidate must show:

- Some theoretical and practical understanding of the concepts in the syllabus.
- Some ability to select appropriate dishes.
- Some knowledge of skills needed for prepatation.

OVERVIEW - GRADE 9 FOOD AND NUTRITION

At the end of grade 9, learners should be able to:
1. describe the importance of minerals in the body.
2. explain the importance of water in the body. TG
3. describe dietary guidelines followed in Lesotho.
4. explain physiological and economic factors in meal planning.
5. discuss the value of main foods in the diet.
6. compare modern and traditional ways of cooking foods.
7. compare preserved and convenience foods.
8. discuss impact of food additives.
9. apply guidelines for effective preparation of flour mixtures.
10. discuss use of raising agents in flour mixtures.
11. describe food spoilage in relation to health and saving money.
12. discuss kitchen equipment and materials they made up of.
13. demonstrate skill of accurate measuring and weighing in food preparation.

14. apply basic math skills to recipe scaling.

15. draw a simple budget for monthly grocery.

GRADE 9 FOOD AND NUTRITION
ACTIVITY PLAN

Learning Outcomes: At the end of grade 9, learners should be able to:	**Concepts, skills, values and attitudes.**	**Suggested learning experiences.**	**What to assess: a teacher should assess learner's ability to:**	**Suggested resources**
1. describe the importance of minerals in the body.	**Concepts** **Minerals:** - calcium - iron - iodine - selenium - phosphorus - fluoride - sodium - zinc Sources Functions/importance Deficiency disease/conditions Symptoms	**Teacher and learners:** • discuss food groups from previous grades and different minerals found in food. • discuss sources and functions/importance of minerals and deficiency diseases or conditions resulting from lack of each mineral in the body. **Learners:** • collect pictures/food samples of foods containing different minerals. • explore food labels for nutritional information. • in groups discuss symptoms and conditions resulting from insufficient intake of	state different minerals. list sources of different minerals. name functions of minerals. Describe functions/importance of each mineral. name deficiency diseases or conditions of each mineral. save money by eating well and not spending on supplementary stuffs. explore food labels to find more on nutritional information.	Charts. Magazines. Internet. Food samples. Packaged foodstuffs.

	Skills Identification Decision-making Observation Investigation Recording Problem solving **Values and Attitudes** Awareness Empathy Appreciation Cooperation	different minerals. • select foods rich in different minerals. • analyse different meals basing on their nutritive value. • describe importance of eating well. • visit different health centres and investigate health problems associated with poor diet/ nutrition in different stages of human development. • research on consultancy fees paid by different out patients in different health centres. • calculate money saved if healthy diets are taken. • study available food supplements and their prices on counters and health centres. • Compare money spent on food supplements and foods. • Report their findings and decide on the best option.		

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
2. explain the importance of water in the body	**Concepts** Water - Functions/importance of bound water - sources extra water intake - safe and healthy drinking water/portable - Mineral water - clean and pure water. Standard requirements of daily allowances.	• Teacher and learners revise water pollution done in previous grades. • Discuss functions or importance and sources of (bound) water in the body. **Learners:** • In groups discuss conditions that require excess water intake. • collect drinking water from different sources, and brainstorm how each can be purified. • visit different companies, and then research on purification of water. I.e. WASCO. • in groups learners study	state sources of water list ways of purifying water for safe drinking. describe functions or importance of water in the body. explain conditions that require extra water. practice simple ways of purifying portable water in small scale. name consequences of drinking unsafe water. explain importance of water in relation to health and money.	Water. Charts.

	Skills Observation Reporting Recording Investigation Critical thinking Decision-making **Values and Attitudes** Responsibility Awareness Cooperation	ways of purifying water in small scale i.e. school and home. • read labels from bottled water and find out which minerals are present. • prepare a chart demonstrating uses/ lack of water in the body • Perform vigorous exercises that will lead to sweating e.g. khati, mokou running etc. • refrain from water intake for 24 hours and estimate the amount of water they drank after 24 hours • perform drama that indicate insufficient water intake • visit the nearby clinic to observe symptoms of dehydration in patients. • investigate on other conditions which may lead to dehydration to the body. I.e. vomiting and diarrhoea. • discuss medical treatments given to dehydrated patients. ORS and daily	identify daily requirements of water intake for different people.	

		requirements of water for different people. • calculate money spent on bottled in relation to water to health and cost effectiveness. • Teacher encourages learners to harvest and purify water to avoid spending money in buying water. • Teacher and learners discuss consequence resulting from drinking dirty (polluted/ contaminated) water. i.e. cholera.		

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
3. describe dietary guidelines followed in Lesotho	**Concepts** Dietary guidelines. Recommendations for a healthy lifestyle. Problems associated with high intake of sugar, salt and fat. Ways of reducing sugar, salt and fat. Importance of salt for other people such as low blood pressure. **Skills** Identification Investigation Critical thinking Decision-making **Values and Attitudes**	**Teacher and learners:** • discuss dietary guidelines for healthy lifestyle. • invite a resource person to discuss problems associated with high intake of sugar, salt and fat **Learners:** • interpret dietary guidelines from other countries. • investigate ways of reducing high intake of salt, sugar and fats as well as effects of health.	explain dietary guidelines for a healthy lifestyle. explain health problems associated with high intake of sugar, salt and fat. state ways of reducing intake of sugar, salt and fat.	Resource person. Internet. Teacher's guide. Books. TV programmes.

	Awareness Responsibility			

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
4. explain physiological factors in meal planning	**Concepts** Meal planning Physiological factors: - Age (infancy to elderly). - Gender (male or female). - Level of activity. - basal metabolic rate Economic factors: - cost/ income **Skills** Problem-solving Identification Critical thinking Decision-making Interpretation Differentiation Reporting	**Teacher and learners:** • discuss physiological factors affecting meal planning **Learners:** • research on different nutritional requirements for different ages, gender and level of activity. • present their findings. • plan l0w and high meals for different individuals.	explain personal dietary requirements in relation to age, gender, level of activity and basal metabolic rate. plan meals for different individuals. plan for low and high income meals. prepare less costly meals. prepare expensive meals.	Internet. Recipe books. Magazines.

	Recording **Values and Attitudes** Awareness Responsibility Cooperation			

Learning Outcomes: At the end of grade 9, learners should be able to:	**Concepts, skills, values and attitudes.**	**Suggested learning experiences.**	**What to assess: a teacher should assess learner's ability to:**	**Suggested resources**
5. discuss the value main foods in the diet.	**Concepts** Main foods: - Milk, pulses and nuts. - Nutritive value. - Hygienic rules in handling and storing milk. - Milk treatments (pasteurization, homogenization, sterilization and ultra -heat treatment. - Uses of milk,	**Teacher and learners:** • revise protein foods from previous grades • discuss nutritive value of milk, pulses and nuts • Discuss hygienic rules in handling milk • discuss heat treatments to improve keeping qualities of milk • take field trip to dairy centres to observe and report hygienic handling, various treatments of milk and products.	list the nutrients found in milk, pulses and nuts. explain the hygienic rules to follow in handling and storing milk. discuss the treatments involved in milk in order to improve keeping quality. explain changes during heating. state uses of milk, pulses and nuts in food preparation.	Pictures of Milk samples. Milking utensils and materials. Charts. Internet. Samples of milk products. Nuts and pulses samples. Teacher's

	pulses and nuts. - Milk products (cheese, yoghurt, cream, butter). - Preparation and cooking of pulses and nuts. - Proper storage of pulses and nuts. **Skills** Observation Decision-making Identification Recording Reporting Measuring Decision making Accuracy Cooking manipulation Discovery **Values and attitudes** Awareness Responsibility Cleanliness caring	• visit nearby shops and explore milk products available. **Teacher:** • demonstrate preparation of simple milk dishes. • observe and record changes happening to milk during heating. **Learners:** • in groups discuss uses of milk in food preparation. • prepare simple milk dishes. • evaluate their dishes. • list milk products. **Teacher and learners:** • discuss preparation and cooking of pulses and nuts. • discuss proper storage of pulses and nuts. **Teacher:** • demonstrates preparation of pulses and nuts. • demonstrates simple dishes	describe proper storage of milk, pulses and nut. list the products of milk. compare prices of different pulses and nuts and milk and milk products and decide accordingly. prepare and evaluate simple milk, nut and pulse dishes.	guide. Cooking equipment.

		using pulses and nuts. **Learners:** • in groups brain storm uses and storage of pulses and nuts. • prepare simple dishes using pulses and nuts • evaluate their dishes		

Learning Outcomes: At the end of grade 9, learners should be able to:	**Concepts, skills, values and attitudes.**	**Suggested learning experiences.**	**What to assess: a teacher should assess learner's ability to:**	**Suggested resources**
6. compare modern and traditional ways of cooking food.	**Concepts** Traditional ways of cooking foods: - Mud oven. - Open fire cooking. - Griddle. Modern ways of cooking food: Stoves: - coal - paraffin, - gas and	**Teacher and Learners:** • revise cooking methods and heat transfer from previous grades and identify ways of cooking foods sort them into modern and traditional. • discuss traditional ways practised in their respective homes. • Learners take field trip to observe the use of mud ovens. Again compare	state the traditional ways of cooking list advantages and disadvantages of modern and traditional ways of cooking foods. practise traditional and modern way of cooking food. operate different stoves. calculate cost of using	Mud ovens. Griddle. Dry cow dung. Recycled fuel. Modern stoves. Wood. Fire wood.

	- Electrical. Advantages and disadvantages of different stoves. Improved stoves to adapt to climate changes **Skills** Identification Observation Decision-making Recording **Values and attitudes.** Awareness. Appreciation. Responsibility. Cleanliness. Caring.	prices of modern stoves. • Learners report their findings. • Learners practise traditional and modern way of cooking food. • Teacher guides learners in operating different stoves. • Learners discuss advantages and disadvantages of different ways in terms of cost effectiveness, caring for the environment and labour. • Individual learner decides which way is preferable in different environment. And support their responses. • Investigate stoves designed to cater for saving fuel.	modern and traditional ways of cooking food.	

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
7. compare preserved and convenience foods	**Concepts** Convenience foods**:** - classification/types - advantages and disadvantages - Guidelines for intelligent use of convenience foods Reasons for popularity of preserved foods advantages and disadvantages **Skills** Identification Decision-making	**Teacher and Learners:** • revise methods of preserving methods done previously. • discuss convenience foods and their classification. • brainstorm advantages and disadvantages of convenience foods. • discuss guidelines for intelligent use of convenience foods **Learners:** • compare preserved and convenience foods in terms of cost, time labour and their availability.	define convenience foods classify convenience foods list advantages and disadvantages of both convenience and preserved foods. explain advantages and disadvantages of convenience foods describe guidelines for intelligent use of convenience foods explain reasons for popularity of preserved	Food samples. Charts. Internet. Teacher's guide.

	Recording Exploration Communication Observation. **Values and attitudes.** Awareness Appreciation Cooperation	• debate on the use of convenience and preserved foods. • In groups discuss reasons for popularity of preserved foods.	foods compare convenience and preserved foods in terms of time, cost, and their availability.	

Learning Outcomes: At the end of grade 9, learners should be able to:	**Concepts, skills, values and attitudes.**	**Suggested learning experiences.**	**What to assess: a teacher should assess learner's ability to:**	**Suggested resources**
8. discuss impact of food additives	**Concepts** Food additives Types of food additives/classification Functions of food additives Advantages and disadvantages of food additives	• Teacher and learners discuss food additives and their functions. • Learners explore food labels and identify different food additives used in different foods. • Learners group variety of foods which may have same additives. • Learners critically analyse	define food additives. list different types of food additives. state food additives from food labels. explain functions of different food additives. explain advantages and disadvantages of food	Food containers with labels. Internet. Teacher's guide.

	Skills. Reporting Recording Identification observation decision-making **Values and attitudes.** Awareness Cooperation Responsibility	usage of such additives in different foods. i.e some foods(processed) have additives others don't. • Learners research on approved additives by different countries. • In groups, learners research on advantages and disadvantages of food additives. • Learners report their findings through class presentations. • decide on which additives to use for their health.	additives.	

Learning Outcomes: At the end of grade 9, learners should be able to:	**Concepts, skills, values and attitudes.**	**Suggested learning experiences.**	**What to assess: a teacher should assess learner's ability to:**	**Suggested resources**
9. apply guidelines for effective preparation of flour mixtures	**Concepts** Flour mixtures. Rules for making flour	• Teacher and learners discuss rules for making flour mixtures. • Revise weights and	state general rules for making flour mixtures. describe the role of each	Teacher's guide. Recipe books.

	mixtures. Roles of ingredients in flour mixtures. Preparation methods. - Rubbing-in (any rubbed-in cake). Basic proportions in flour mixtures: - batters; and - scones. Faults and their causes. Shopping list **Skills** Measuring. Accuracy. Observation. Manipulation. Reporting. **Values and attitudes** Cleanliness. Cooperation. Awareness.	measures. • Discuss roles of ingredients in flour mixtures. • Discuss different methods of cake making • Discuss faults and their causes in flour mixtures. **Learners:** • take a tour and visit nearby shops to explore variety of ingredients as well as their prices. • discuss different of cake-making methods, faults and their causes. • **Teacher** demonstrates rubbing-in method. **Learners:** • Explore different recipes on rubbing in. • Choose recipe and scale it up. • Make a shopping lists. • Accurately weigh and measure ingredients to avoid waste.	ingredient in flour mixtures. describe faults and their causes. name different types of batters. state basic proportions for each type of batter. describe the method of making different types of batters. explain the characteristics of different batters measure ingredients accurately. draw a shopping list for different dishes.	Cookery equipment. TV programmes. Magazines. Internet

		• in groups prepare and bake a cake, biscuits, scones and batter using rubbing-in method under supervision of the teacher. • observe and record faults during cooking. • evaluate their dishes (sensory evaluation). • cost and price their products. • serve dishes appropriately. • compare prices of commercial and home-made products. • report their findings. • debate on the similarities and differences; brainstorm the possibilities for their findings.		

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
10. discuss use of raising agents in flour mixtures	**Concepts** Raising agents Classification: - mechanical raising agents (air) and ways of incorporating. - chemical raising agents (bicarbonate of soda and baking powder). - biological raising agents (yeast) **Skills.** Identification Critical thinking Manipulation Communication Observation **Values and attitudes.**	**Teacher and learners:** • Revise flour mixtures. • discuss different raising agents. **Learners:** • in groups, classify raising agents. • identify ways of incorporating air into flour mixtures. • use raising agents to prepare simple dishes. • explain the mechanical, chemical and biological reactions in the products. • suggest which raising agents are suitable for different flour mixtures and give reasons for their use. • make different mixtures with different raising agents and observe the results. • report their findings.	define a raising agent. classify raising agents into mechanical, biological and chemical. state ways of incorporating air into flour mixtures. explain mechanical, chemical and biological actions of raising agents.	Teacher's guide. Ingredients. Equipment. Recipes. Internet.

	Awareness Appreciation Cleanliness Responsibility			

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
11. describe food spoilage in terms of health and saving money	**Concepts.** Date labels: BB-best before use by: Pr- processed. Md –manufacture date Causes of food spoilage Natural decay: - moisture loss. Microbial decay: - Yeast; - Bacteria, and - Mould Conditions required for multiplication of micro-organisms**:** - Air; - Moisture; - Food; - Warmth; - pH; and - temperature.	**Teacher and learners:** • revise food spoilage and hygienic practices from previous grades. • experiment loss of moisture using fruits and vegetables and observe changes that occur on daily basis and record the findings. • discuss conditions required for multiplication of micro-organisms • discuss storage of perishable and non-perishable including terminology used for non - perishable foods-processed. I.e. MD, PR, BB and use by. • relate common hygienic practices they follow at home to food contamination. And relate food contamination and	explain causes of food spoilage. name micro-organisms which cause food spoilage. state conditions required by micro-organism for growth. explain how food can be stored safely. explain the importance of hygiene in the handling of food to prevent contamination.	Food samples. Internet. Books. Posters.

	Storage of perishable and non-perishable (check expired date often) Hygienic handling of food: - personal hygiene; and - kitchen hygiene **Skills.** Observation Recording Reporting Communication Decision making **Values and attitudes.** Awareness Responsibility Appreciation Caring	food spoilage. **Learners:** • visit local markets and food vendors to observe hygienic handling of food. • present their findings • estimate wasted money resulted from spoiled/ rotten food. • learn to avoid spoilage of food as to save money. • suggest ways of preventing food spoilage.		

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
12. demonstrate skill in accurate measuring and weighing of food.	**Concepts** Weights and measures: - unit of measure for volume, mass and temperature - equipment used for homely measures: measuring cups spoons, jugs - metric measuring equipment: scale - measuring abbreviations. Conversion table**.** **Skills.** Demonstration. Accuracy. Measuring. Observation. Manipulation. Comparison. Calculation.	• Teacher and learners revise measurements done previously. • Learners measure different temperatures, volume and weight of different ingredients in the food laboratory using metric and homely. • Learners explain importance of measuring food accurately. • Convert metric measures to homely measures and vice versa. • Save money and ingredients when measuring ingredients accurately.	state equipment and tools used for homely and metric measures identify measuring abbreviations used in recipes. describe importance of measuring accurately in food laboratory. convert different measures and weights differentiate homely and metric measures weigh and measure accurately.	

	Values and Attitudes Awareness. Appreciation. Cooperation. Honesty.			

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
13. discuss kitchen equipment and materials made up of.	**Concepts** Kitchen equipment Classification according to size and function: - large kitchen equipment - small kitchen equipment (cutting, preparation, measuring, cooking, serving) Choice, use and care of small kitchen equipment Materials used: - ceramic; and - earthen ware **Skills.** Demonstration. Accuracy. Measuring.	**Teacher and learners:** • discuss classification and use of kitchen equipment • discuss different materials that utensils and equipment are made up. **Learners:** • categorise equipment and identify materials they are made up. • draw and label kitchen equipment on chart papers. • match utensils and equipment with their functions. • discuss points to consider when choosing equipment. • practise proper cleaning and storing of different kitchen equipment. • compare prices of various equipment from shop to shop.	classify equipment into large and small equipment. identify materials used for making kitchen equipment. explain advantages and disadvantages of each material. state points to consider when choosing small kitchen equipment. explain correct use and care of different kitchen equipment.	Charts. Kitchen equipment. Internet. Magazines. Books.

	Observation. Manipulation. Comparison. Calculation. **Values and Attitudes** Awareness. Appreciation. Cooperation. Honesty.	• research on buying power of different customers in different shops on such equipment. • report and record their findings.		

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
14. apply basic math skill to recipe scaling	**Concepts.** Scaling recipes Measurements: homely and metric measures Conversion factor **Skills.** Calculation. Decision making. Logical thinking. Accuracy. **Values and Attitudes.** Awareness. Appreciation.	• Learners collect different recipes from books, magazines and internet. • Learners identify servings from each recipes. • Teacher and learners discuss ways of decreasing and increasing servings. • Learners convert metric and homely measures. • Learners use their maths skills to find conversion factor. • Learners determine the conversion factor and use the formula to scale up recipes. • Learners apply the skill in food preparation. • Learners assist cooks and other caterers to scale up recipes and earn money.	identify servings from different recipes. convert different measures calculate conversion factor. scale up variety of recipes.	Recipes. Measuring equipment and tools. Conversion chart or board.

Learning Outcomes: At the end of grade 9, learners should be able to:	Concepts, skills, values and attitudes.	Suggested learning experiences.	What to assess: a teacher should assess learner's ability to:	Suggested resources
15. draw a simple budget for monthly crockery.	**Concepts** Budget: individual and family. Shopping list **Skills.** Observation. Decision making. Discovery. Communication. Calculation. **Values and Attitudes.** Responsibility. Awareness. Honesty.	• Teacher and learners discuss grocery items needed for family and individuals (budgeting). • Identify needs and wants from the list (prioritisation).and give reasons for prioritising. • Teacher and learners discuss ways of distributing money wisely. And use till slips to estimate prices of different household items. • Learner role play earning, spending, investing and sharing income/ money they have. • Learners make a research on family budgets in different homes. • Learners analyse different budgets and shopping lists. • Learners draw a budget	prioritise grocery items for individual and family. budget for individuals and family. make shopping list. draw a budget template for individuals and families.	Books. Till slips. Internet.

		template for individuals and families and shopping lists.		