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Department of Education
National Capital Region
SCHOOLS DIVISION OFFICE
MARIKINA CITY

TVL - Home Economics

Bread and Pastry Production

First Quarter-Module 2

Baking Ingredients and their Substitutions

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City of Good Character
DISCIPLINE • GOOD TASTE • EXCELLENCE

Mayroong pag-asa dahil sa iyo, dahil sa inyong mga kabataan. Ang iyong mga ngiti, tawa, sigla, at likas na kabutihan ang inspirasyon naming mga magulang at guro upang pagbutihin ang pag-aalaga sa iyo, nang maipagpatuloy mo ang iyong pag-aaral at mga libangan.

Lagi ka sanang maging malusog, masayahin, masipag, at mapagmahal.

Ako ay sabik na maghihintay sa iyong pagbabalik sa paaralan sa hinaharap.

- Mayor Marcy

Paano iniiwasan ng ating pamilya ang COVID-19?

Inaalagaan ba natin ang ating kalusugan sa pamamagitan ng **sapat na tulog, ehersisyo, at masustansyang pagkain**?

Lagi ba tayong **naghuhugas ng kamay** gamit ang sabon at tubig o mga alcohol-based na produkto?

Pinapanatili ba natin ang kalinisan sa pamamagitan ng **palagiang pagdi-disinfect ng bahay**?

Binubuksan ba natin ang mga bintana para **makadaloy ang hangin** (natural ventilation)?

Iniiwasan ba natin ang **paglabas ng bahay at pagpapapasok ng bisita** kung hindi naman kailangan? Kung may lalabas man, tayo ba ay nagsusuot ng **face mask at face shield**?

Nagbabasa o nakikinig ba tayo sa mga **balita at bagong impormasyon** tungkol sa COVID-19?

Tinatandaan ba natin ang mga **karaniwang sintomas** ng COVID-19? At alam ba natin kung saan tatawag kung sakaling mayroong may sintomas sa pamilya?

Tinuturuan ba tayo ng ating mga magulang at nagiging mabuti ba silang modelo ng mga nabanggit na health at safety protocols?

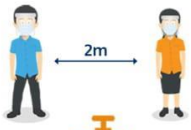
I love Marikina

Make Marikina COVID-19 Free

Stay safe, stay healthy!

MGA PAALALA UPANG MAIWASAN ANG COVID-19

Laging magsuot ng face mask at face shield.



Practice Social Distancing
(Dumistansya ng 2 metro kapag nakikipag-usap)

Laging maghugas ng kamay at gumamit ng alcohol.

Kumain ng masustansyang pagkain at uminom ng maraming tubig.

Uminom ng bitamina.

Panatilihing malinis ang kapaligiran.

Manatili lamang sa bahay kung walang mahalagang aasikasuhin at panatilihing ligtas ang tahanan sa COVID-19.

Agad sumangguni sa inyong doktor o pinakamalapit na health center kapag nakaramdam ng mga palatandaan ng COVID-19.

Marikina COVID-19 Hotlines:

0926 626 3695
0927 456 6682
0961 470 3326
0961 470 3327

Make Marikina COVID-19 Free
Stay safe, stay healthy!

HiNDi PA TAPOS ANG LABAN SA COViD-19: MGA PAALALA LABAN SA FAMiLY CLUSTER iNFECTiON

Iwasan ang hawaan sa pamilya, gawing ligtas ang tahanan. TANDAAN:

MARIKINA COVID-19 CALL CENTER
HOTLINE:
0926-626-3695
0927-456-6682
0961-470-3326
0961-470-3327

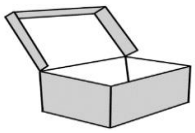
SWAB TEST

GAWiNG LiGTAS ANG TAHANAN.

- Huwag balewalain ang sintomas ng COVID-19
- Sundin ang quarantine protocols
- Huwag munang mag-dine in sa mga kainan/café
- Iwasan ang selebrasyon, inuman, at pagtambay
- Iwasan ang pulutong ng mga tao
- Huwag huhubarin ang face mask kapag nakikipagusap at panatilihin ang 2 meters na distansya
- Iwasan magpapasok ng mga bisita na hindi essential sa loob ng bahay
- Palaging maghugas ng kamay

i ♥ Marikina

Hindi kaya ng pamahalaan lamang.
Magkakasama nating talunin ang COVID-19 sa Marikina.
PARA SA LiGTAS NA MARiKiNA



What I Need to Know

This module was designed and written with you in mind. It is here to help you develop knowledge, skills, and attitudes in the performance of Bread and Pastry tasks. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

Quarter I – L.O.1 Prepare and Produce bakery Products
L.O.2 Decorate and present Bakery Products
L.O.3 Store bakery products

The module is divided into 8 lessons, namely:
Lesson 1 – Accurate measurements of ingredients
Lesson 2 – Baking ingredients, and its substitution
Lesson 3 – Types, kinds, and classification of bakery products
Lesson 4 – Mixing techniques and procedures in bakery products
Lesson 5 – Baking tools, utensils, and equipment
Lesson 6 – Baking techniques, principles, and guidelines in baking
Lesson 7 – Decorate and present bakery products
Lesson 8 – Selecting packaging materials and storing bakery products

Learning Outcomes: At the end of the lesson the students are expected to do the following:
L.O.1. Prepare bakery products:
1.2 Baking ingredients and their substitutions

Baking Terminologies

As you wish to pursue baking as a career, you should familiarize yourself with the common preparation and baking terminologies that come across in the process.

Acid is a substance having a sour or sharp flavor.

Butter a ripened cream of milk. It contains 80% butter fat.

Confectioner sugar is the finest among the types of sugar. It contains 3 % cornstarch. It is also known as powdered sugar.

Flour is a powdery substance produced by finely grinding grain through a process called milling.

Hydrogenated turns liquid fats into a solid fat, or sometimes called a plastic fat.

Leavening agent substances that produce gas while mixing or heating the batters and dough that make baked products rise.

Shortening is a group of solid fats, usually white and tasteless, that are especially formulated for baking.

Spices provide flavor and aroma and are usually derived from plant sources like seeds, flowers, barks of trees, roots, and fruits.

Wheat cereal grains are a source of baking flour.

Yeast is a microscopic, single-celled plant that produces carbon dioxide. Gas as it grows it needs food, liquid, and warm temperatures to grow.

What I Know

List down 5 ingredients that you know in baking. Explain the uses and characteristics of each ingredient. (2 points each)

1. _____
   _____
   _____
2. _____
   _____
   _____
3. _____
   _____
   _____
4. _____
   _____
   _____
5. _____
   _____
   _____

How Well Did You Perform?

Your performance will be rated using the rubrics below.

Rubrics for Scoring:

1	Able to discuss comprehensively the significant task.
2	Able to discuss appropriately the task with 1 or 2 errors.
3	Able to discuss appropriately the significant task with 3 to 5 errors.
4	Able to discuss appropriately the significant task with 6 to 8 errors.

Scale	Description	Points
4	Excellent	93 - 100
3	Good	86 - 92
2	Fair	79 - 85
1	Poor	78 - below

Lesson 2 Baking Ingredients and Their Substitutions

In this module, the students will give knowledge and understanding on the different baking ingredients and their characteristics and functions which the apprentice, expert and professional bakers should know. It particularly discusses the definition and classification of flour, sugar, leavening agent, milk, and other ingredients. It also includes the proper selection and functions of dry and liquid ingredients and the proper way to store them.

What's In

In baking, one thing you should always bear in mind to prepare a baked product successfully is to know how to measure the ingredients. Knowing the proper techniques and guidelines for measuring liquid and dry ingredients. Also, make sure use the standard measuring tools such as standard measuring cup and spoons, and weighing scales

Notes to the Teacher

In this lesson, the learners are expected to use appropriate measuring tools and utensils, follow the proper techniques during the laboratory but as a teacher always remind them to practice safety measures, sanitation at all times.

What's New

Let's Guess It! The students will get a partner. One will present to the class one actual baking ingredient and his/her partner will tell something and give its function.

How Well Did You Perform?

Your performance will be rated using the rubrics below.

Rubrics for Scoring:

1	able to discuss comprehensively the significant task
2	able to discuss appropriately the task with 1 or 2 errors
3	able to discuss appropriately the significant task with 3 to 5 errors
4	able to discuss appropriately the significant task with 6 to 8 errors

Scale	Description	Points
4	Excellent	93 - 100
3	Good	86 - 92
2	Fair	79 - 85
1	Poor	78 - below

What is It

Baking ingredients and their substitution.

I. Flour is a powdery substance produced by finely grinding grain through a process called milling. The classification of flour is based on the amount of protein that each type contains. Protein determines the gluten strength of the flour.

A. Types of Flour

1. **All-purpose flour** used for all general baking. Made of a blend of hard and soft wheat. It has 10-11% protein content.
2. **Bread flour** has more gluten than all-purpose flour. It is creamy in color and is rather rough and granular. It contains 12-14 % protein.
3. **Cake flour** has less gluten that all-purpose flour. Contain 7-9% protein. You can substitute all-purpose flour for cake flour, use 1 cup minus 2 Tablespoons of all-purpose flour.

B. Other forms of flour

1. **Pastry flour** a weak flour but slightly stronger than cake flour with 7-8 % Protein content. It is called third class flour.
2. **Rye flour** has a distinctive flavor many people like and it contains no gluten. Use in combination of wheat flour.

3. **Self-Rising flour** all-purpose flour with baking powder and salt added. If you do not have self-rising flour, you can substitute the following: For each cup of self-rising flour use 1 cup all-purpose flour, 1 ½ tsp. Baking powder and ½ tsp. salt.
4. **Instant Blending flour** that has been specially treated to blend easily with liquids. Used for sauces and gravies.
5. **Corn flour** derived from milling corn.
6. **Cassava flour** derived from milling cassava root crop
7. **Rice flour** it Contains 6.5 – 7 % Protein. Does not form gluten.

C. Uses of flour

1. Provides structure, texture, and color to baked products.
2. Provides nutritive value to baked products
3. Used as thickening agent
4. Used as binder of food
5. Used as stiffening agent in laundry

D. Storage of flour

Flour should be store in a tightly sealed container and kept in a cool, dry place. Flour can be kept for two to three months.

II. Sweetener - Gives sweetness to the bake product.

Types of sweetener

a. Sugar is sweet, soluble organic compound that belongs to the carbohydrates group of food.
b. Honey is a sweet thick substance made by bees.
c. Molasses is a thick brown sweet liquid substance that is made by raw sugar.
d. Corn syrup is a sweet thick liquid from corn.

A. Types of sugar

1. **Very fine sugar** is used for cakes and cookies. Sometimes this sugar is called “baker’s special”, also known as Caster sugar.
2. **Granulated sugar** is the sugar commonly found on the table at home.
3. **Brown sugar** is often called “soft sugar” because of its moisture content. Its color may vary from light to dark brown.
4. **Confectioner’s sugar or powdered sugar** granulated sugar that has pulverized. To prevent lumping and caking about 3 % cornstarch is added.
5. **Muscovado** is a crystalline brown sugar. It is dry rather than moist like regular brown sugar. Demerara sugar is sometimes used in baking, but it is more often served as sweetener with coffee and tea.

B. Effects of sugar in Baking

- ✓ They add sweetness and flavor
- ✓ They create tenderness and fineness of texture, partly by weakening the gluten structure.
- ✓ They give crust color.
- ✓ They increase keeping qualities by retaining moisture.
- ✓ They act as creaming agents with fats and as foaming agents with eggs.
- ✓ They provide food for yeast.

III. Eggs

Eggs are considered a complete protein, containing all the essential amino acids human use to build other proteins needed by the body. Whole eggs consist of the yolk which is rich in fat and protein. The yellow color varies from light to dark. They constitute half or more of the cost of the ingredients.

A. Market forms of Eggs

1. **Fresh or shell eggs** may be purchased individually, by dozen or in trays. Fresh eggs have rough, chalky white shell. Do not have undesirable color.
2. **Frozen eggs** are made of quality fresh eggs. They come in the form of whole eggs with extra yolks and whites. Frozen eggs are pasteurized and must be thawed before use.
3. **Dried eggs** are seldom used in bakeshops. Their whites are used for preparing meringue. Dried eggs are used by manufacturers of cake mixes.

B. Uses of Eggs in Baked Products

1. Helps incorporate air into baked products when you beat them.
2. Add color texture, flavor, moisture, and richness to the batter.
3. Contributes structure in baked products.
4. Helps give dough elasticity and structure.
5. Acts as leaveners, stabilizer thickeners and binders.
6. Provide protein and nutrients to the body.
7. Serves as emulsifier of fat and liquid.

C. Composition of Eggs

1. **Mucin** is a protein which is found in egg whites and responsible for its gel characteristic.
2. **Ovalbumin** is another protein found in egg whites which coagulates and involve both in heat coagulation and whipping.
3. **Lecithin** present in egg yolk which is responsible for its emulsifying property. It is the portion of the egg yolk that causes spoilage when eggs are stored at warm temperature.

D. Storage of Eggs

Eggs should be kept at room temperature to avoid of losing the quality. Avoid them to store that will easily absorb undesirable flavor and odor. Left over whites or yolk should be used one or two days in a tightly covered container inside the refrigerator.

IV. Fats

Fats are organic compounds that are not soluble in water. This is used to prevent the sticking of gluten strands while mixing so that gluten is shortened and makes the product tender.

A. Types of fats

1. **Shortening** is any fat acts as a shortening in baking because it shortens gluten strands and tenderizes the product. However, we generally use the word shortening to mean any of a group of **solid fats**, usually white and tasteless. Shortenings may be made from vegetable oils, animal fats, or both.
2. **Butter** is made of fatty milk proteins. It contains 80-85 % fat;10-15% water and 5 % milk solids.
3. **Margarine** is made from hydrogenated vegetable oil. It contains 80-85% fat, 10-15% water and 5 % salt.
4. **Lard** is made of fat from pork
5. **Oil** is made from plant products such as corn, cotton seeds, soybeans, and peanuts
6. **Cocoa butter** the ivory colored natural fat of the cocoa beans extracted during the manufacturing of chocolate and cocoa powder.

B. Uses of shortenings

- ✓ Help make baked products tender –tenderizes the gluten.
- ✓ Coats the flour particles.
- ✓ Helps trap air which aids in leavening and give better volume.
- ✓ Prevent the cohesion of gluten.
- ✓ Improve the aroma. color and texture of baked products.
- ✓ Improve the shelf life of baked products because of its moisture.

C. Storage of fats

All fats become rancid when exposed to the air too long. Also, they tend to absorb odors and flavors from other foods. Highly perishable fats, such as butter, should be stored, well wrapped, in the refrigerator. Other fats and oils should be kept in tightly closed containers in a cool, dry, dark place.

V. Leavening Agent

Are gas produce or incorporated during the mixing and heating of batter and dough to make the mixture rise, increase, volume, and give shape and texture to baked products.

A. Kinds of leavening agent

1. **Chemical Leaveners**. are chemical mixtures or compounds that release gases, usually carbon dioxide. Chemical leaveners are used in quick breads and cakes, as well as cookies. Examples of chemical leaveners are.

    a. **Baking Soda** otherwise known as bicarbonate of soda, or Sodium Bicarbonate. It is a chemical salt with diverse practical uses. It is a powerful leavener that readily reacts as soon as it comes in contact with batter or dough.
    b. **Baking Powder** is a combination of baking soda and acid salt.
    c. **Baking ammonia** is a mixture of ammonium carbonate, ammonium bicarbonate, and ammonium carbamate. It decomposes rapidly during baking to form carbon dioxide gas, ammonia gas, and water. Only heat and moisture are necessary for it to work. No acids are needed.
    d. **Cream of tartar** is tartaric acid and is a fine white crystalline acid salt which is a by-product of the wine-making industry. It is used in the whipping of egg whites to stabilize them and allow them to reach maximum volume.

2. **Biological Leaveners**. is yeast, a living organism; neither plant nor Animal is a leavening agent in bread, dinner roll, Danish pastries and similar Leavening with yeast is a process based on fermentation, the process of converting sugar to alcohol and to carbon dioxide.

    Types of Yeast

    - ✓ Dry or granular
    - ✓ Compressed or cake type
    - ✓ Instant

3. **Physical leaveners** – is a leaveners that can be produce physically ex. Air and steam. This air expands during baking and leavens the products.

    a. **Air** is incorporated into all dough's and batters during mixing. The formation of air cells is important even in products leavened by yeast or baking powder because the air cells collect and hold the leavening gases. Air is trapped in mixtures during beating and stirring.
    b. **Steam** is produced in products that contain high water content. The high temperatures used in baking will cause steam. Some products are leavened by steam.

B. Uses of leavening on baked

1. Leaveners increase the volume of the baked products.
2. They give shape and texture that make the bread more palatable.
3. Leavening agents make brad lighter and easy to chew.
4. Digestion is facilitated with the use of leaveners in baked products.

C. Storage of Leavening agent

Chemical leaveners are always kept in tightly closed containers in a cool dry place because heat causes deterioration. Yeast should always keep refrigerated.

VI. Liquids

Liquids ingredients in baking may be plain water, milk, cream, or fruit juice.

a. **Water** the cheapest liquid used in baking.
b. **Milk** next to water, milk is the most important liquid in the bakeshop. It also moistens dough and batters and contributes to the nutritive value of bake products. It gives finer, more velvety grain. It adds flavor. It helps the product stay longer.

Forms of Milk

1. **Pasteurized milk** has been heated to 161°F (72°C), held at this temperature for 15 seconds to kill disease-causing organisms, and then quickly chilled milk.
2. **Whole milk** is fresh milk as it comes from the cow, with nothing removed and nothing (except vitamin D) added. It contains about 3 1/2% fat (known as milk fat or butterfat), 8 1/2% nonfat milk solids, and 88% water.
3. **Skim or nonfat milk** has had most, or all the fat removed. Its fat content is 0.5% or less.
4. **Low-fat milk** has a fat content of 0.5 to 2%. Its fat content is usually indicated, usually 1% and 2%.
5. **Fortified nonfat or low-fat milk** contains added substances increase its nutritional value, usually vitamins A and D and extra nonfat milk.
6. **Homogenized milk** has been processed so the cream doesn't separate**.**
7. **Condensed milk** is a whole milk that is heavily sweetened with sugar that acts as preservatives. About 60 % of its water content has been removed.
8. **Evaporated milk** of water is removed whether whole or skimmed is milk from which about 60 %. It is preferred in baking.

Uses of milk in baked products

- ✓ Increases nutritive value of baked products.
- ✓ Enhances texture and increase softness of baked products.
- ✓ Acts as strengthener when mixed with flour because it helps in the formation of gluten.
- ✓ Provides moisture and tenderness to baked products.
- ✓ Enhances flavor and color.
- ✓ Extends the shelf life of a cake.

Storage of milk

1. Buttermilk, fresh and skimmed milk, and other fermented products must be refrigerated at all times.
2. Unopened cans of evaporated milk must be kept in a cool storage area. Milk should be removed from cans and transferred immediately to a container after opening for refrigeration**.**
3. Condensed is stored in a cool, covered place.
4. Dried milk is kept in a cool dry place.
5. Milk powdered should keep in a well-covered in a dry place.

VII. Minor ingredients

They are not as important as the major ingredients in baking, but they are essential in attaining the sensory qualities of baked products. They are used in small quantities.

Example of Minor Ingredients

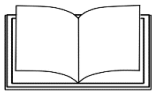
a. **Flavorings** are not essential ingredients, but they help make baked products special. Extracts are flavorful oils and other substances dissolved in alcohol.
b. **Salt** adds flavor to many baked products. Regulates the action of yeast in baked products.
c. **Spices** are plant or vegetable substances used to flavor foods. Plant parts used as spices include seeds, flower buds (such as cloves), roots (such as ginger), and bark (such as cinnamon).
d. **Wines** various alcoholic beverages are useful flavoring ingredients in the pastry shop. These include sweet alcohols, often called liqueurs, non-sweet alcohols, and wines.
e. **Coffee** are derived from roasted and ground coffee bean
f. **Chocolate and cocoa** are derived from cocoa or cacao beans. When the beans are fermented, roasted, and ground, the resulting product is called chocolate liquor, which contains a white or yellowish fat called cocoa butter. Cocoa is the dry powder that remains after part of the cocoa butter has been removed from chocolate liquor.

Substitutes for common ingredients

Ingredients stated in the recipe	Substitutes
1 tablespoon All-purpose flour	1/2 tablespoon cornstarch; potato starch; rice starch; or arrowroot starch
1 tablespoon cornstarch	2 tablespoon All-purpose Flour
1 cup sifted cake flour	7/8 cups All-purpose flour sifted, 1 cup all-purpose flour sifter minus 2 tablespoons
1 cup sifted cake flour	7/8 cups All-purpose flour sifted, 1 cup all-purpose flour sifted minus 2 tablespoons
1 cup granulated sugar	1¹/³ cup brown sugar, lightly packed, 1 ½ Cup corn syrup minus ½ cup liquid, 1 cup honey minus ½-1/3 cup liquid.
1 cup honey	1 ¼ cup sugar plus ½ cup liquid
1 ounce chocolate	3 tablespoon cocoa plus 1 tablespoon cocoa plus 1 tablespoon fat.
1 tablespoon baking powder	¼ teaspoon baking soda plus ½ cup fully soured milk or lemon juice mixed with sweet milk to make ½ cup, ¼ teaspoon baking soda plus ¼ to ½ cup molasses, ¼ teaspoon cream of tartar.
1 tablespoon active dry yeast	1 package (7grams) dry yeast or 1 compressed yeast cake
1 whole egg	2 egg yolks or 3 tablespoons thawed from frozen eggs, 2 ½ tablespoon sifted dry whole egg powder plus 2 ½ tablespoon lukewarm
1 egg yolk	11/3 tablespoon frozen egg yolk
1 egg white	2 tablespoon frozen egg white, 2 teaspoon sifted dry egg yolk powder plus 2 teaspoon water.
1 square unsweetened chocolate	3 tablespoon cocoa plus 1 tablespoon fat.
1 cup butter	1 cup margarine,7/8 to1 cup hydrogenated fat plus ½ teaspoon of fat, 7/8 cup lard plus ½ teaspoon of salt, 7/8 rendered fat plus ½ teaspoon salt.
1 cup coffee cream (20 %)	3 tablespoon butter plus 7/8 cup milk

1 cup heavy cream (40%)	¼ cup butter plus about ¾ cup of milk
1 cup whole milk	1 cup reconstituted non – fat dry milk plus 2 ½ teaspoon of butter or margarine
1 cup milk	3 tablespoon of sifted non- fat dry milk powder plus 1 cup water, 6 tablespoons of sifted non-fat dry milk crystals.
1 cup buttermilk or sour milk	1 tablespoon of vinegar or lemon juice plus enough sweet milk to make 1 cup (let stand for 5 minutes) 1 ¾ teaspoons of cream of tartar plus 1 cup sweet milk.

Substitution of ingredients are used when specified recipe are not available.



What's More

Classify the different ingredients into major and minor ingredients. Then identify if it is liquid, dry, or moist ingredients.

	Dry ingredients	Liquid ingredients	Moist ingredients
Major ingredients	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4.
Minor ingredients	1. 2.	1. 2.	1. 2.

What I Have Learned

In two sentences, answer the following questions. (5 points each)

1. Give the different sweetener that are used in baking. Describe each.
   _____
   _____
   _____
   _____

2. Why is it necessary to substitute ingredients? Explain your answer.

_____
_____
_____
_____

How well did you perform?

Your performance will be rated using the rubrics below.

Rubrics for Scoring:

1	able to discuss comprehensively the significant task
2	able to discuss appropriately the task with 1 or 2 errors
3	able to discuss appropriately the significant task with 3 to 5 errors
4	able to discuss appropriately the significant task with 6 to 8 errors

Scale	Description	Points
4	Excellent	93 - 100
3	Good	86 - 92
2	Fair	79 - 85
1	Poor	78 - below

What I Can Do

Online Learners: Demonstrate and create a video presentation on how to prepare pancakes. Follow the procedure below. Submit your output as per teacher's instruction.

Offline learners: Using the task sheet below, the students will do the activity, and they will be graded using the scorecard. Make an observation report signed by the parent or guardian. Take pictures of the procedure in preparing pancakes and send it to the teacher.

Learning competency: Baking Ingredients and Their Substitution

1. Procedure:

   Prepare a basic recipe of pan cake. Make 2 recipes, but for every half recipe use different fats. For the 1st half use butter, for the 2nd use margarine, for the 3rd use oil, for the 4th use lard.

   Evaluate your product according to texture, flavor, and smell. Which pan cake has the best texture, flavor, and smell?

Pan cake

Ingredients:

- 1 cup all-purpose flour
- 1 tablespoon sugar
- 1 teaspoon baking powder
- ½ teaspoon salt
- 1 tablespoon fat
- ½ egg
- ¾ cup milk
- ½ tsp. vanilla

Procedure:

Mixing: Muffin method

1. Sift together the dry ingredients.
2. Combine the eggs or egg yolks, milk, and fat.
3. Add the liquid ingredients to the dry ingredients. Mix until just combined. Do not overmix.
4. For waffles: Just before they are to be cooked, whip the egg whites until they form soft peaks, then beat in the sugar until the meringue is stiff. Fold into the batter.

Cooking Pancakes

1. Using a 2-oz (60-mL) ladle, measure portions of batter onto a greased, preheated griddle (375°F/190°C), allowing space for spreading.
2. Fry the pancakes until the tops are covered with bubbles and begin to look dry, and the bottoms are golden brown.
3. Turn and brown the other side.
4. Serve hot, accompanied by butter, maple syrup, fruit syrup, jams or preserves.

Guide Questions:

Based on the finished product, complete the table about the differences on the taste, texture, and appearance of pancakes.

PANCAKE	Taste	Texture	Appearance
Using Butter			
Using Margarine			
Using Oil			
Using Lard			

How well did you perform?

Your performance will be rated using the rubrics below.

Rubrics for Scoring:

4	Can perform this skill without supervision and with initiative and adaptability to problem situations.
3	Can perform this skill satisfactorily without assistance or supervision.
2	Can perform this skill satisfactorily but requires some assistance and or supervision.

1	Can perform this skill satisfactorily but requires considerable assistance and or supervision.

Scale	Description	Points
4	Excellent	93 - 100
3	Good	86 - 92
2	Fair	79 - 85
1	Poor	78 - below

Assessment

I. Baking Ingredients

Match **Column A** with **Column B**. Write the letter of the correct answer.

	A	B
1.	A powdery product obtains from milling cereal grains and other root crops.	a. Water
2.	A sweet soluble organic compound that belongs to carbohydrates.	b. Salt
3.	It is a gas produced or incorporated during mixing and heating batter or dough to make the mixture rises.	c. Sugar d. Flour
4.	A cheapest ingredient in baking.	e. Eggs
5.	It inhibits the growth of the yeast.	f. Leavening agents

II. Substitution of Ingredients

Give the substitute equivalent of the following ingredients.

1. 1 c. cake flour sifted =_____ cup All-Purpose Flour sifted
2. 1 tablespoon of APF =_____ tablespoon cornstarch
3. 2 ounces chocolate =_____ square chocolate
4. 1 c. butter =_____ cup margarine
5. 2 tablespoon active dry yeast =_____ package dry yeast compressed

Additional Activities

With the help of your parents or guardians, get a sample of all the varieties of flour available in your area. (All-purpose flour, bread flour, cake flour etc.) Get a handful from each sample and press on your palm. Consider and note differences in feel, color, smell, and jot down in the space below.

Flour variety	Color	Odor	Texture
1. All-purpose flour 2. Bread flour 3. Cake flour 4. Ready mix flour			

How well did you perform?
Your performance will be rated using the rubrics below.

Rubrics for Scoring:

4	Can perform this skill without supervision and with initiative and adaptability to problem situations.
3	Can perform this skill satisfactorily without assistance or supervision.
2	Can perform this skill satisfactorily but requires some assistance and or supervision.
1	Can perform this skill satisfactorily but requires considerable assistance and or supervision.

Scale	Description	Points
4	Excellent	93 - 100
3	Good	86 - 92
2	Fair	79 - 85
1	Poor	78 - below

Answer Key

What I Know

Answers may vary.

1.Flour – give structure to a bake product.

2.Baking powder – it makes the bake product rise.

3.Sugar – it gives sweetness to the baked products.

4.Butter – it makes the product soft and tender

5.Eggs – it gives protein and makes the product light.

What's More

Answer:

B. Substitution:

1. 7/8 cups all purpose flour
2. 1/2 tablespoon cornstarch
3. 2 square chocolate .
4. 1c.margarine
5. 2 package active dry yeast

Assessment
A.Matching type :

1.D
2.C
3.F
4.A
5.B

B. Analogy

1. 4½ Tbsp. cocoa + 1 ½ Tbsp. fat
2. 2 ½ tbsp.vinegar + enough milk
3. 1 1/2 tbsp. cornstarch
4. 1 ¾ c. APF
5. 2 ½ c. + 1 c. liquid

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