Basic agro food processing

Level-I

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Module Title: - **Finishing Products**

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Instruction sheet	
LG #55	**LO #1- Preparing to finish products**

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Accessing and follow work place information and procedures
- confirming and make availability of ingredients
- Check finishing equipment
- Preparing finishing materials
- Identifying environmental responsibility of staff in food processing

Legislative requirements to prepare fishing product.

This guide will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

- Accesses and follow work place information and procedures
- confirm and make availability of ingredients
- Check finishing equipment
- Prepare finishing materials
- Identify environmental responsibility of staff in food processing
- identify Legislative requirements to prepare fishing products

Learning Instructions:
Learning Instructions: 1. Read the specific objectives of this Learning Guide. 2. Follow the instructions described below. 3. Read the information written in the information Sheets **4.** Accomplish the Self-checks

Information Sheet 1	Accessing and follow work place information and procedures

1.1 Introduction

Policies and procedures are an essential part of any organization. Together, policies and procedures provide a roadmap for day-to-day operations. They ensure compliance with laws and regulations, give guidance for decision-making, and streamline internal processes. However, policies and procedures won't do your organization any good if your employees don't follow them. Employees don't always like the idea of having to follow the rules. But policy implementation is not just a matter of arbitrarily forcing employees to do things they don't want to do. Following policies and procedures is good for employees and your organization as a whole.

1.2 Workplace information

Each workplace relies on the exchange of information to carry out its daily business. Information is passed from employee to employee, customer to employee, supervisor to team member, supplier to customer, and so on. Dealing effectively with information and records is necessary and important for all organizations. The quantity and variety of information kept by an organization can be huge. Information needs to be sorted into related groups so that it can be stored easily and found when needed. An organization's success depends largely on how well it manages its information. You need to be familiar with the type of information used in your job and the way records are organized so you can collect, file, store and find information quickly and easily. Finding and using information is a large part of many jobs, so knowing how to deal with it is an important workplace skill. Being confident and efficient in this skill helps you and your organization succeed.it also includes:-

- batch/recipe instructions
- verbal or written operating procedures
- specifications: detailed description of design criteria for a piece of work
- production schedules

Self-check 1	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the best answer (4 point)

1. which on following are not workplace information
   A) Batch/recipe instruction
   B) Verbal or written operating procedures
   C) "A" and "B" are answer
   D) D. None
2. Which one of the following is the most important indicator for the consumer
   A. Quality of finished product
   B. Batch instruction
   C. Labeling of food
   D. . All
3. Which one of the following is legislatively regulated on national or international levels
   A. Recipe instruction
   B. Labeling of food
   C. Quality of finished product
   D. None

You can ask you teacher for the copy of the correct answers.

Note: **Satisfactory rating - 10 points** **Unsatisfactory - below 10 points**

Information Sheet 2	Confirming and make availability of ingredients

2.1 Ingredients available to meet finishing requirements

Raw materials (ingredients, processing aids, and packaging materials) are the foundation of finished food products. As such, they must meet regulatory requirements (safe and legal for your intended use) and your specifications (contribute to the functionality and quality of your process and product). Ingredient means any substance, including a food additive, used in the manufacture or preparation of a food and present in the final product although possibly in a modified form.

2.1.1 Understanding the ingredients

Finishing ingredients are usually elements that add visual appeal and flavor to a dish when used on the surface, but would lose their nuanced complexity if thrown in during the cooking process. Finishing salt is possibly the most well-known, but there are also finishing sugars, and other specialty ingredients.

A. **Food Additive** means any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result, (directly or indirectly) in it or its by-products becoming a component of or otherwise affecting the characteristics of such foods. The term does not include “contaminants” or substances added to food for maintaining or improving nutritional qualities.

B. Vegetable shortening is not lard.

It adds the cream texture to your icing, and does not soften quickly as margarine when it is warm. It can be purchased in bricks that you can cut to measure in a tube. If you need to measure it, scoop it into a measuring cup for dry ingredients and press it flat, trying to eliminate any air pockets and scrape it level. Another way to cake decorating measure shortening is to fill a larger liquid measure with water to a level you can recognize, for instance one cup, and scoop in your shortening until the water line reaches that first amount plus the amount of shortening you need.

C. Butter or margarine

Adds flavor to the icing and adds to the creamy texture. Do not use tub margarine, because it liquefies too easily at room temperature. You will find it easier to work with icing that is not made completely with butter because it has a lower melting point, which makes it soften too fast for use with piping. If the margarine you use is yellow, tinting icing to colours that would contain no yellow can prove impossible (like making purple or blue icing). Flavors are added to icing to make it taste better. Butter cream icing does not have much flavor other than being sweet unless you add a flavor. The most common that recipes suggest is vanilla, but you can use flavors such as rum, mint or lemon

D. Food colors

Food coloring, or color additive, is any dye, pigment or substance that imparts color when it is added to food or drink. They come in many forms consisting of liquids, powders, gels, and pastes. Food coloring is used both in commercial food production and in domestic cooking. Food colorants are also used in a variety of non-food applications including cosmetics, pharmaceuticals, home craft projects, and medical devices.

❖ **Purpose of food coloring**

People associate certain colors with certain flavors, and the color of food can influence the perceived flavor in anything from candy to wine. Sometimes the aim is to simulate a color that is perceived by the consumer as natural, such as adding red coloring to glacé cherries (which would otherwise be beige), but sometimes it is for effect, like the green ketchup that Heinz launched in 1999. Color additives are used in foods for many reasons including:

- To make food more attractive, appealing, appetizing, and informative
- Offset color loss due to exposure to light, air, temperature extremes, moisture and storage conditions
- Correct natural variations in color
- Enhance colors that occur naturally
- Provide color to colorless and "fun" foods
- Allow consumers to identify products on sight, like candy flavors or medicine dosages

1. Liquid Food Coloring

Liquid coloring is made using synthetic coloring and a water base. It is watery and as such the colors are not very concentrated. It is a good choice if you wish to achieve pastel colors, but you are after a stronger or darker color you would need to add a significant amount, which will thin out your mixture. Liquid food coloring is best used with other liquid medium such as syrup, water, chocolate, etc.

Figure 1 Liquid Food Coloring

2. Liqua-Gel

Liqua-Gel is also water based but contains glycerin and corn syrup, which makes it a semi-thick gel and concentrated form of food coloring. If it's the first time you use Liqua-Gel, it is always best to start by adding one drop at a time, mixing it well and then adding another drop if needed. This way you will avoid ending up with a darker than desired color. This is the type of coloring that you can use with practically any recipe (except chocolate), as it's not likely to affect the consistency of your mixture, but it's also not as thick as Gel Paste and therefore easier to use. Liqua-Gel is very popular due to its versatile uses and applications. You can practically use Liqua-Gel for most recipes, except for fat-based product such as chocolate.

Figure 2 Liqua-Gels

3. Gel Food Coloring

Gel or gel paste food coloring is much thicker than Liqua-Gel and the colors are even more concentrated and more vibrant. However it is more tricky to use as it's very easy to add a bit too much coloring. In fact the best way to add it to your mix is by collecting a teeny tiny amount using a toothpick, incorporating it into your mix, letting it rest for 10-15 mins and then repeating if needed. Gel colors become deeper with time that is why it's important to let the mixture rest and see how it changes before adding more color. Because of its consistency, it is ideal for coloring large batches of icing or dough at a time.

Figure 3 Gel Food Coloring

4. Powder Food Coloring

Powder food coloring is a completely dry form of food dye with no liquid. It is perfect for mixes that are sensitive to the amount of added liquid such as chocolate or macarons. It is important to know that it does not mix with water, so it must be mixed with a few drops of clear alcohol, or if you're incorporating it into the batter add a few drops of alcohol into the mixture. It can also be used dry to brush directly onto food as decoration. Due to its dry consistency, it is not very easy to incorporate into thick batter, and adding too much can dry out a mix. Allow the mixture to sit 5-10 mins after incorporating the dye in order to let the color fully develop.

Figure 4 Powder Food Coloring

Natural food coloring

Natural food coloring are made using dyes commonly found in nature, such as chlorophyll which gives plants their green color, or turmeric which is a plant commonly found in India and used for yellow coloring. This is the best choice of coloring for anyone with allergies and for health conscious people. Due to the relatively low heat resistance of the natural ingredients, it is best used with low/no heat desserts and toppings.

Natural Food Coloring is most commonly found in powder form. Most powder natural food coloring will fade within 24 hours when they are exposed to sunlight. Chef Master's Natural Food Coloring is formulated to have better stability and will hold its colors much longer than other coloring on the market.

Figure 5 Natural food coloring

Oil-Based Food Coloring

Chef Master's Candy Colors are formulated liquid food coloring that bind to oil-based products such as chocolate, candy melts & any fat-based/oil-based products. This type of food coloring is specialized to work with fat-based recipes where adding water would affect the mixture. Never use regular food coloring with chocolate, because the water content will "seize" & ruin your chocolate.

Figure 6 Oil-Based Food Coloring

7.Airbrush food coloring

Airbrush food coloring is similar to Liqua-Gel in terms of ingredients but has a different viscosity. It is designed to be thinner specifically to be used with an airbrush compressor machine. This method is perfect for creating more artistic effects on fondant, dry icing, cookies or cakes using different colors. Just remember to clean your airbrush gun after each use to ensure the colors don't mix.

Figure 7 Airbrush food coloring

Self-Check – 2	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: choose the best answer (5point each)

1. Which one of the following is any substance not normally consumed as a food
   A. Ingredient
   B. Food additive
   C. vegetable shortening
   D. none
2. Which one of the following are added to icing to make it taste better.
   A. Flavor
   B. Ingredient
   C. ‘’A’’ and ‘’B’’ are answer
   D. All

Score = _____

Rating: _____

Note: **Satisfactory rating -≥ 5 points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Information Sheet 3	Check finishing equipment

3.1 Check finishing equipment

Stainless steel finishes are an important aspect in sanitary food processing equipment, as finishing options alter more than just the appearance of the metal. A variety of methods are used to achieve stainless steel finishes hot and cold rolling, grinding with abrasives, buffing with cloth wheels, tumbling, dry etching, sandblasting, acid solutions, bead blasting, and more each one affecting the surface smoothness in varying degrees.

According to the International Association for Food Protection, surface roughness has been generally related to clean ability of stainless steel, with smoother surfaces often considered more cleanable. In a sanitary application, such as food processing, stainless steel needs a smooth, scratch-free, and non-corrosive finish to prevent the harboring and growth of bacteria. This equipment is employed to produce food and food product applications such as bakery goods to beverages and dairy. The food processing equipment can be designed and constructed to handle solid, semi-solid and liquid products, in a batch-wise or continuously, depending on the demands of the operation.

Figure 1. Stain less steel mixing bowel

- **Piping Bags & Tips**

If you want to decorate like a pro, you need these piping and pastry bags. Wilton carries a variety of pastry and icing bags that are perfect for the kind of intricate detail work to help make any dessert stand out! Plastic sandwich bags are a popular substitute for pastry bags. They are useful because they are disposable, most homes have them and they are easy to handle. You can use zip-top bags, slider-tip bags or simple sandwich bags that have a fold-over top. Simply put the frosting in the bag and push it tone corner.

Figure 2. Piping Bags

Figure 3.Roller and decorators

Fig 4 Piping bags

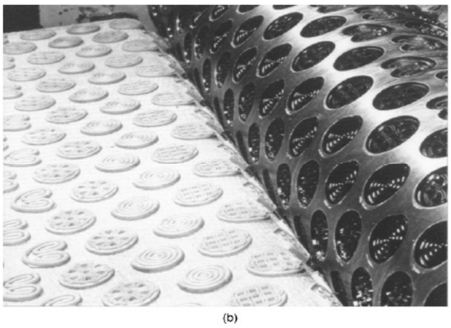

Fig 5 Biscuit former

- Nozzles

A narrow piece attached to the end of a tube.so that the liquid or air that comes out can be directed in a particular way.

Figure 6 .Nozzle cake

- **Spatulas**

Spatulas are one of the most common kitchen utensils in your kitchen. You probably have one for cooking and if you are a baker, you may have another specifically for baking, too. But did you know the spatula you use in the kitchen and the spatula you use for baking both have the same name but look different and are used differently for each kitchen task?

Through the years, the word "spatula" has morphed into other similarly alike kitchen utensils with other uses in the kitchen. While the spatula, in general, is a kitchen utensil used to flip or turn food in a pan, there are differences between the various spatulas you may have in your kitchen.

Figure 7 spatula

3.2 Principle of checking finishing equipment

1. Cleanable to a Micro-biological Level.

Food equipment must be constructed and be maintainable to ensure that the equipment can be effectively and efficiently cleaned and sanitized over the lifetime of the equipment. The removal of all food materials is critical. This means preventing bacterial ingress, survival, growth and reproduction. This includes product and non-product contact surfaces of the equipment.

2. Made of Compatible Materials.

Construction materials used for equipment must be completely compatible with the product, environment, cleaning and sanitizing chemicals, and the methods of cleaning and sanitation. Equipment materials of construction must be inert, corrosion resistant, nonporous and nonabsorbent. Essentially, the processor wants to minimize areas where microorganisms can hide, live and survive. By eliminating incompatible materials in the construction of the processing equipment, the processor reduces the likelihood of creating a hospitable environment where bugs can grow.

3. Accessible for Inspection, Maintenance, Cleaning and Sanitation.

All parts of the equipment shall be readily accessible for inspection, maintenance, cleaning and/or sanitation. Accessibility should be easily accomplished by an individual without tools. Disassembly and assembly should be facilitated by the equipment design to optimize sanitary conditions.

4. No Product or Liquid Collection.

Equipment shall be self-draining to assure that food product, water, or product liquid does not accumulate, pool or condense on the equipment or product zone areas. The processor does not want to have any areas in the system where water can collect, or where product can collect and later develop into a foreign material as it dries out, crusts and hardens. Standing water can serve as a harborage or growth point for microorganisms, and

any time moisture is introduced into an environment there is an increased chance for microbial growth.

5. Hollow Areas Hermetically Sealed.

Hollow areas of equipment (e.g., frames, rollers) must be eliminated where possible or permanently sealed (caulking not acceptable). Bolts, studs, mounting plates, brackets, junction boxes, name plates, end caps, sleeves and other such items must be continuously welded to the surface of the equipment and not attached via drilled and tapped holes. In most food processing plants, there is a lot of framework used on pieces of equipment, and we want to make sure that there are no penetrations that would allow moisture and/or food materials or organic matter to get inside or under the surface of equipment.

6. Hygienic Compatibility with Other Plant Systems.

Design of equipment must ensure hygienic compatibility with other equipment and systems (e.g., electrical, hydraulics, steam, air, water). Ensuring the hygienic compatibility of the equipment with other systems is both a processor responsibility to the equipment manufacturer as well as an equipment manufacturer responsibility to the processor. The processor wants to make sure that equipment introduced into a facility is designed and built to be usable with the plant systems. Processors can communicate to equipment manufacturers the established electrical, hydraulic, steam, compressed air and oil filtration and water systems information to assist in improved design strategies prior to the equipment being built and arriving at the plant.

7. Validate Cleaning and Sanitizing Protocols.

The procedures prescribed for cleaning and sanitation must be clearly written, designed and proven to be effective and efficient. Chemicals recommended for cleaning and sanitation must be compatible with the equipment, as well as compatible with the manufacturing environment.

Self-check 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (3point each).

1. Food equipment must be constructed and be maintainable to ensure that the equipment can be effectively and efficiently cleaned and sanitized.
2. Plastic sandwich bags are a popular substitute for pastry bags.

Test II: Choose the best answer (5point).

1. Finishing equipment may include the following principle
   A. Cleanable to a Micro-biological Level.
   B. Hygienic Compatibility with Other Plant Systems.
   C. No Product or Liquid Collection.
   D. Validate Cleaning and Sanitizing Protocols

Note: **Satisfactory rating - ≥4 points** **Unsatisfactory - below 4 points**

You can ask your teacher for the copy of the correct answers.

Information Sheet 4	Preparing finishing materials

4.1. materials to meet product finishing requirements

Foods come into contact with many different materials during preparation, processing, packing and transportation. These materials will be used in the machinery used to prepare and process the food, package the food and to serve the food to the final consumer. Much of the equipment used in food preparation and processing will consist of many materials, while modern packaging will often consist of multiple layers of different materials.

Among the most widely used materials are the many types of plastic used for bottles, films and containers. There is also a wide range of paper and board products, laminates and metal and wooden containers. Many modern forms of packaging will make use of all these in a single packaging product and will also contain adhesives to bond layers together and coatings and lacquers that allow the packaging to protect the foodstuff under often very harsh conditions during processing and transportation.

4.2. **Finishing materials may include** :

- fresh, mock or butter cream
- icing sugar
- glazes and similar fillings and coverings

4.2.1.fresh, mock or butter cream

Adds flavor to the icing and adds to the creamy texture. Do not use tub margarine, because it liquefies too easily at room temperature. You will find it easier to work with icing that is not made completely with butter because it has a lower melting point, which makes it soften too fast for use with piping. If the margarine you use is yellow, tinting icing to colours that would contain no yellow can prove impossible (like making purple or blue icing).

4.2.2. Icing sugar (can or confectioners or powdered sugar)

Do not substitute table sugar for icing sugar. Sift it to be sure there are no lumps. Some recipes use the weight, as the amount can vary dramatically depending on if you sift it or not (4 cups is about 454 grams).

Self-Check – 4	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (3point each).

1. Foods come into contact with many different materials during preparation; process finishing materials may include sing, packing and transportation.

Test II: Choose the best answer (5point).

1.Finishing materials may include

A.fresh, mock or butter cream

B.icing sugar

C.glazes and similar fillings and coverings

D.all

Note: **Satisfactory rating - ≥4 points** **Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

Information sheet 5	Identifying environmental responsibility of staff in food Processing

5.1 Identifying environmental responsibility of staff in food Processing

What to expect from a food safety inspection. Your responsibilities for keeping food safety to eat when your start up a food business, you must register with the environmental health service at your local council at least 28 days before opening registration is free of charge. When you register your business with your local council, they will advise you on safety requirements and inspections. The safe catering pack and safer food, better business Four Cs of food hygiene and safety if you run a food business, it is your responsibility to ensure that your food is safe i.e. not harmful to human health or unfit for human consumption. Kept clean and that food is handled in hygienic way.

Important food hygiene and safety considerations can be remembered as the four Cs:-

a) Cleaning

Make sure that surfaces and utensils that come into contact with food are kept clean and disinfected where necessary, and that hands are washed regularly.

b) Cooking

Make sure that foods that are served hot are thoroughly cooked. In particular, products such as sausages and burgers, and meats such as pork and chicken should not be served rare or pink in the middle and when pierced with a knife the any juices should run clear, not bloody. Once cooked food must be covered and kept hot (above 63^{o}c) to prevent the growth of food poisoning bacteria.

c) . Chilling

Do not put not food directly into the fridge or freezer, let it cool sufficiently first; but remember that cooling should be completed within one or two hrs. after cooking. Ensure that refrigerators and freezers are capable of storing foods at the required temperatures.

d) Cross contamination

Keep raw foods separate from cooked and ready to eat foods at all times. Use separate chopping boards and utensils for raw and ready to eat foods wash hands after handling raw foods and before touching other foods and utensils.

5.2 Food Hygiene responsibilities

You are responsible for monitoring the hygiene and safety levels in your business, including:-

- kitchen surfaces and equipment
- refrigerators
- dining areas
- delivery vehicles
- waste disposal
- toilets
- hand washing facilities
- Staff and training

You should make sure that food handlers involved in your business receive adequate training in food hygiene matters commensurate with their work activity training should cover areas such as HACCP, cooking, temperature control, cross contamination cleaning and disinfection, personal hygiene, pest control allergy awareness.

The level of training required will depend on the type of work being done. Staff should also be training in any necessary emergency procedures resulting from food contamination accident and incident reporting.

Self-Check – 5	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (2point).

1. Foods come into contact with many different materials during preparation; process finishing materials may include sing, packing and transportation.

Test II: Choose the best answer (5point).

1. Food Hygiene responsibilities
   A. kitchen surfaces and equipment
   B. refrigerators
   C. dining areas
   D. delivery vehicles
2. Which one of the important food hygiene and safety considerations
   A. Cleaning
   B. Cooking
   C. Chilling
   D. all

Note: **Satisfactory rating - ≥6points** **Unsatisfactory - below 6 points**

You can ask you teacher for the copy of the correct answers.

Information sheet 6	Legislative requirements to prepare finishing products.

6.1 Legislative requirements to prepare finishing products.

Food legislation developed in many countries around the globe requires that microbiologically safe food shall be produced by means of process equipment that minimizes the risk of contamination and that is easily cleanable. Legislative requirements are typically reflected in finishing product procedures and specifications.

Legislation relevant to the industry includes:

- the Food Standards Code,
- labelling,
- weights and
- Measures.
- Occupational health and safety (OHS) hazards and controls.

6.1.1. Legislative regulatory and requirements

The primary purpose of food regulations is protection of the consumer. With the growing complexity of production and processing techniques, and the psychological conditioning of the consumer through advertising when goods are put on the market, it is necessary to provide the public with legal safeguards against anything that may adversely affect its health or abuse its trust.

Food Safety Principles an important part of healthy eating is keeping foods safe. Food may be handled numerous times as it moves from the farm to homes. Individuals in their own homes can reduce contaminants and help keep food safe to eat by following safe food handling practices. Four basic food safety principles work together to reduce the risk of food borne illness—Clean, Separate, Cook, and Chill.

6.1.2 Components of basic food safety

- Maintaining personal hygiene while storing and handling food
- Preventing contamination, cross contamination
- Reporting and preventing pest infestation

- Safe disposal of waste
- Safe handling and storage of cooked and un-cooked food
- Use of personal protective equipment

Self-Check – 6	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (3point each).

1. All people and organizations are required to comply with relevant legislation to which they are subject.

Test II: Choose the best answer (5point).

1. Which one of the following Legislation relevant to this industry includes
   A. Food standards code
   B. Occupational safety health
   C. ‘’A’’ and ‘’ B’’
   D. none
2. Which one the following is some of the primary legislation that may need to be considered when applying for a grant.
   A. Governance
   B. Human resources
   C. practices issues
   D. All

Note: **Satisfactory rating - ≥4 points** **Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

LG #32	LO #2- . Assembling and finishing products.

Instruction sheet
This learning guide is developed to provide you the necessary information regarding the following content coverage and topics: • Applying finishing materials • Finishing products • Identifying, rectifying or report unacceptable product • Assemble products • Maintaining housekeeping standards • conducting work This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to: • Apply finishing materials Finish products • Identify rectifying or report unacceptable product • Assemble products • Maintaining housekeeping standards • Conduct work

Learning Instructions:

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
3. Read the information written in the information Sheets
4. Accomplish the Self-checks
5. Perform Operation Sheets
6. Do the “LAP test

Information Sheet 1	Applying finishing materials

1.1 Applying Finishing materials

Finishing is completing the presentation of a food product to a high standard. It may include:

- fresh, mock or butter cream
- icing sugar
- glazes and similar fillings and coverings

1.1.1 applying fresh, mock or butter cream

The cake decorating world is full of fancy piping tips, clever cutters and specially tools you can use to create amazing effects. But that doesn't mean you have to buy out the store to get started. In fact, its way better to start with the basics: pick up just what you need to nail that perfectly smooth, flawless fondant or butter cream surface.

Once you have mastered that key skill, the rest is just icing.

- Cake pans
- Parchment paper
- Sharp knife or x-acto blade
- Cake boards or drums
- Off-set spatula and/or bench scraper
- Turntable or lazy Susan

Fondant icing, also commonly referred to simply as fondant, is an icing used to decorate or sculpt cakes and pastries. It is made from sugar, water, gelatin, vegetable fat or shortening, and glycerol.

- Shortening: - air is the enemy of fondant, so keep it covered at all times. Leaving fondant out for even a few minutes can cause it to dry out and crust, which gives it a gross skin and makes it tear easily. Shortening, on the other hand, is fondant's best friend. When

fondant starts to get dry, add a small amount of shortening to the fondant to condition it and make it workable again.

Fondant is supper stick, especially when you are rolling it out to cover a cake. It is best to use powdered sugar or corn starch on the surface to keep the fondant from sticking. It doesn't matter which, but keep one in a shaker and disperse it evenly while rolling out your fondant

- Large and small fondant rollers
- Fondant smoothers

1.2 **Icings**

The basic process as mentioned earlier, icing a cake is an art where one can utilize ones creative potential to the fullest extent. But before going further, let us first learn the very basic procedure of icing a cake. For example Decorations we can divide the process into four steps, namely

- **Preparing a cake base:**
  It is important to place the cake on a firm base so that it is easy to handle it during and even after decoration. A thick cardboard is cut slightly bigger than the size of the cake. If the cake is round, then the base can be 1" bigger in diameter than that of the cake. If the cake is square, then the cake base should be %" bigger on. each side. This cardboard is then covered evenly by an aluminum foil, so that the base looks attractive as well as becomes grease proof, and hygienic. Keep the prepared base on the turntable. The cake is then placed upside down in the center of the cake base, so that you get a smooth, even top for decorating.
- **Giving filling in the** cake: Depending upon the type of the cake, a filling is given inside the cake, e.g. chopped pineapple for pineapple decorated cake. For this you have to cut the cake horizontally into two equally thick layers. Place the bottom sheet of the cake on the base and cover with the filling. Then place the top layer over it in the original position as far as possible.
- **Applying icing on top and sides:** The icing is then applied evenly on top and sides of the cake by a palette knife. This requires skill as it has to be smoothened by a palette knife. Hold the palette knife vertically and rotate the cake stand keeping the palette knife surface in

contact with the cake sides, if the cake is round. For a square cake the palette knife again has to be kept vertical and the sides of the cake should be smoothened. Similarly for the top, the surface has to be smoothened by the palette knife. The sides of the cake can then be combed with a cake comb to make the sides look more attractive. It is like a mason plastering a wall.

1.3 Piping and Decoration:

Lastly, the top is decorated by piping some icing into different designs. For this we require a piping bag and different nozzles for making different designs. Nozzles are available in different shapes. E.g. star nozzle, flower nozzle, ribbon nozzle etc. The icing mixture is filled in a piping bag, and the mixture is then piped on top of the cake e.g. a border can be given with a plain or a star nozzle, flowers can be prepared with a flower nozzle.

1.4The procedure of preparing decorating finishing Cake.

1. Grease proof paper- to line a cake base or to make a piping bag if needed.
2. Piping bags of canvas or nylon. These are available readymade in the market.
3. Scissors for making a cut in the piping bag.
4. Nozzles of different shapes - these are needed to create various designs.
5. Brushes of differ rent sizes - ranging from %" to 2" icings.
6. Palette Knife- to smoothen the first layer of icing on top and sides of the cake.
7. Sharp Knife - to slice the cake into two halves.
8. Rolling pin - to roll out icing in order to make flowers etc.
9. Flower cutters or biscuit cutters - to cut the icing into interesting shapes.
10. Cakes stand or timetable - on which the cake can be placed and moved easily while icing.
11. Cake pillars - needed to create two or three tiered cakes.
12. Cooling rack - to cool the sponge before icing.
13. Cake combs - for giving a decorative touch.
14. Cake decorations - like ribbons, laces, beads, flowers etc. These mayors may not be edible.

Self-Check – 1	Written test

Name…… ID…… Date……

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: choose the best answer. (3point each)

1. Which one of the following is very basic procedure of icing a cake?
   A. Preparing a cake
   B. Giving filling in the cake
   C. Applying icing on top and sides
   D. All

2. Which equipment can be used to finish cake decoration?
   A. .piping bag
   B. Nozzle.
   C. filler
   D. roller and knife
   E. All

Note: **Satisfactory rating - ≥3 points** **Unsatisfactory - below 3 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Operation sheet 1	decorating finishing cake

Procedure

Step1.select Grease proof paper- to line a cake base or to make a piping bag if needed.

Step2. Ready Piping bags of canvas or nylon. These are available made in the market.

Step3. Use Scissors to cut piping bag.

Step4.use Nozzles of different shapes

Step5. Brushes of differ rent sizes - ranging to icings.

Step6. Palette Knife- to smoothen the first layer of icing on top and sides of the cake.

Step7. Sharp Knife - to slice the cake into two halves.

Step8. Rolling pin - to roll out icing in order to make flowers etc.

Step 9.use Flower cutters or biscuit cutters - to cut the icing into interesting shapes.

Step 10. Use Cakes stand or timetable - on which the cake can be placed and moved easily while icing.

Step11 .use Cake pillars - needed to create two or three tiered cakes.

Step 12.use Cooling rack - to cool the sponge before icing.

Step 13.use Cake combs - for giving a decorative touch.

Step14. Use Cake decorations - like ribbons, laces, beads, flowers.

Reference.

https://www.youtube.com/watch?v=gb_Vebrz_ig

https://www.youtube.com/watch?v=gb_Vebrz_ig

LAP TEST	Performance Test

Nam ----------ID----------Date----------

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within **1** hour. The project is expected from each student to do it.

Task 1: perform decorating finishing cake.

Information Sheet 2	Finishing products

2.1. Finishing products

Finishing products are goods have completed required manufacturing process and are ready to be fitted/mixes/processed with final product. The final product itself could also be called finished goods. Examples: food, car, furniture. Finished goods are goods that have completed the manufacturing process but have not yet been sold or distributed to the end user.

2.1.1. Manufacturing has three classes of inventory

- Raw material
- Work in process
- Finished goods

A good purchased as a ‘’raw material’’ goes into the manufacture of a product. A good only partially completed during the manufacturing process is called work in process. When the good is completed as to manufacturing but not yet sold or distributed to the end user, it is called a finished good**.**

Examples of finished goods include:

Fruits and vegetables

processed food such as cereals &sardines

- pulses
- Meat

Self-Check – 2	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: choose the best answer (3point each)

1. Which one of the following are goods that have completed the manufacturing process but have not yet been sold or distributed to the end user.
   A. Manufacturing
   B. Finished products
   C. Work in process
   D. none
2. Which one of the following are the classes of inventory for manufacturing
   A. Raw material
   B. Work in process
   C. Finished goods
   D. All

Note: **Satisfactory rating - 3≥ points** **Unsatisfactory - below 3 points**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Information Sheet 3	Identifying, rectifying or report unacceptable product

3.1 Identifying, rectifying or report unacceptable product

To Identifying, rectifying or report unacceptable product, we first know defect the product and defect classification. Defect classification is a vital step for determining if goods should pass or fail inspection. And considering the quantity and severity of different types of defects found helps you make an informed shipping decision and identify unacceptable products.

Quality control professionals typically classify quality defects into three main categories:

- Minor
- Major
- Critical.

The nature and severity of a defect determines in which of the three categories it belongs.

Importers have the power to specify how many of each type of defect they're willing to accept in their finished goods. This tolerance, in turn, impacts how many units per SKU an inspector would check during inspection—the sample size.

Importers commonly set these quality tolerances using a statistically valid acceptance sampling method known as acceptable quality limits, or acceptable quality levels.

A. Minor defects

Minor defects are usually small, insignificant issues that don't affect the function or form of the item. In most cases, the customer wouldn't even notice a minor defect on a product. And the customer wouldn't likely return an item due to a minor defect alone. Importers often set the highest tolerance or AQL, if applying that standard for minor defects in their inspected sample size. But an item can still fail inspection if the number of minor defects found exceeds the limit set by their tolerance (related: How AQL Sampling Affects Your Inspection Results).

B. Major defects

Major defects are more serious than minor defects. A product with quality defects a major defect departs significantly from the buyer's product specifications. Major defects are those which could adversely affect the function, performance or appearance of a product.

These defects are readily noticeable by the customer. And these defects would likely cause a customer to return the product, lodge a complaint or request a refund in response. Most importers set a lower limit for major defects than minor defects in their inspected sample size. They'll often accept an order with relatively few major defects. But they're likely to reject an order, or ask their supplier to hold or rework it, if the goods fail inspection due to an excessive number of major defects found.

C. Critical defects

Critical defects are the most serious of the three defect types. Critical defects render an item completely unusable and/or could cause harm to the user or someone in the vicinity of the product. These defects put businesses at serious risk of product liability issues, lawsuits and product recalls. Many importers have a "zero tolerance" policy for critical defects in their orders commensurate with this risk. An item will often fail product inspection if a single critical defect is found within the order.

3.2 Rectifying and reporting unacceptable product

Socially unacceptable products were defined as those which, despite consumer satisfaction, are considered by large portions of society to be unacceptable because of the potential and/or actual harm that they cause to individuals and/or society.

3.3 Report Defective Products to the Company

Consumers are also reporting defective products to the companies that create them. Speak to your local dealer about getting in touch with the company. Companies may not know of a defective product unless informed by consumers. Therefore, consumers have a duty to immediately report any defects that they find to the company. Look for the company's website, and find out how you can contact them. Look for a toll-free number, and inform the company about the defect. The company is then under an obligation to immediately report the defect to the federal agency that oversees that particular good.

Self-Check – 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (2point each)

1.Defect classification is a vital step for determining if goods should pass or fail inspection.

2.Critical defects render an item completely unusable and/or could cause harm to the user.

Test I: choose the best answer (3point each)

1. The nature and severity of a defect determines in which of the three categories it belongs.
   A.Minor,
   B.Major
   C.Critical.
   D.All
2. ---------- Defects are the most serious of the three defect types.
   A.Minor,
   B.Major
   C.Critical.
   D.All

Note: Satisfactory rating - 5≥ **points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Information Sheet 4	Assembling products

4.1 Assemble line production system

An assembly line is a manufacturing process (often called a progressive assembly) in which parts (usually interchangeably parts) are added as the semi-finished assembly moves from workstation to workstation where the parts are added in sequence until the final assembly is produced.

4.2.Assembly in industry

Assembly line, industrial arrangement of machines, equipment, and workers for continuous flow of work pieces in mass-production operations. A food assembly line starts with after completed process:

Steps of assemble products:

Step 1- Select decorating material

Step 2- identify decorating ingredients

Step 3- prepare finish product

Step 4- decorate finish product

Step 5- assemble finish product

Self-Check – 4	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (2point each)

1.Defect classification is a vital step for determining if goods should pass or fail inspection.

2.Critical defects render an item completely unusable and/or could cause harm to the user.

Test II: choose the best answer (3point each)

1.Which one of the following is a manufacturing process in which parts are added as the semi-finished assembly moves from workstation to workstation where the parts are added in sequence until the final assembly is produced

A.Assembly line

B. Assembly in industry

C. ‘’A’’ and ‘’B’’

D. All

Note: **Satisfactory rating - 5≥ points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

5.1 Maintaining housekeeping standards

Effective housekeeping can help control or eliminate workplace hazards. Poor housekeeping practices frequently contribute to incidents. If the sight of paper, debris, clutter and spills is accepted as normal, then other more serious hazards may be taken for granted. Housekeeping is not just cleanliness. It includes keeping work areas neat and

Housekeeping practices are part of the workplace quality program as well as the safety program.

Poor housekeeping practices such as inadequate cleaning of work areas and equipment may lead to a build-up of bacteria that could contaminate meat product. Good housekeeping is also fundamental to maintaining a clean, tidy and safe working environment. This fact sheet focuses on the safety aspects of housekeeping. In addition, good housekeeping practices generally reflect good management practices and pride in the workplace, signaling that the company cares about safety. This is important in an industry that needs to win and maintain the trust of the general public that the company can consistently produce quality product to customer specifications.

Worksites that have poor housekeeping practices with rubbish, waste and broken items around the grounds and a general appearance of poor maintenance do not instill confidence in consumers about the products produced on site. Poor housekeeping practices may cause accidents in the workplace and/or provide fuel for fires. Poor housekeeping practices may lead to slips, trips and falls.

These accidents may be the result of:

- Poor maintenance practices
- Inadequate cleaning practices
- cracked and uneven floors
- Work areas and walkways blocked by waste, equipment, unused items, broken items etc.
- hoses and equipment lying around
- product overflow

Good housekeeping practices and supervision are crucial to basic workplace safety. Work health and safety laws mandate that senior management must take a risk management approach to minimize the risks to health and safety in the workplace. This involves taking a systematic approach to identifying all the risks associated with poor housekeeping and implementing control measures to eliminate the risks or, if that is not possible, to reduce the risks to the lowest possible level.

5.2**. Practice good housekeeping in the workplace**

- Ensure all spills are immediately cleaned up.
- Maintain clean light fixtures to improve lighting efficiency.
- Keep aisles and stairways clear.
- Regularly inspect, clean and repair all tools.

Self-Check – 5	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false (2point each)

1. Defect classification is a vital step for determining if goods should pass or fail inspection.
2. Critical defects render an item completely unusable and/or could cause harm to the user.

Test I: choose the best answer (3point each)

1. Which one of the following practices may cause accidents in the workplace and/ or provide fuel for fires.
   A. Good housekeeping
   B. poor housekeeping
   C. Inadequate cleaning practices.
   D. All
2. Which one of the following are poor housekeeping practices.
   A. Inadequate cleans
   B. Poor maintenance practice
   C. Cracked and uneven floors
   D. All

Note: **Satisfactory rating - 5≥ points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Information Sheet 6	Conducting work

6.1 conducting work

Companies should establish safe work practices/safe job procedures for addressing significant hazards or for dealing with circumstances that may present other significant risks/liabilities for the company. They should reflect your company's approach to controlling hazards.

Some regulations require employers to have written procedures/instructions for specific activities/conditions. The number of practices/procedures and the degree of detail will depend on the range of work activities your company performs. It is important that management and supervision are involved in the development of safe work practices and that they provide adequate training for workers likely to follow these practices.

Safe work Practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. Safe job procedures are a series of specific steps that guide a worker through a task from start to finish in a chronological order. Safe job procedures are designed to reduce the risk by minimizing potential exposure.

Safe work practices should be developed as a result of completing a job safety analysis (JSA) or a hazard risk assessment (HRA) and should closely reflect the activities most common in the company's type or sector of construction. Safe job procedures are usually developed by management and workers as a result of a JSA/HRA, accident or incident investigation, and/or as a supplement to a safe work practice.

All safe work practices should be kept in a location central to the work being performed and readily available to the workforce. Some safe work practices will require specific job procedures, which clearly set out in a chronological order each step in a process.

Safe work procedures should be included in the company's "Worker Orientation" program. All workers should be aware of the fact that safe job procedures have been established, are in effect, are written down, and must be followed. IHSA suggests that you build your collection of safe practices/procedures incrementally start with a few major items and add to them as needed. Avoid simply repeating clear regulatory requirements. Rather, if needed, provide direction on how your company will implement/apply those requirements.

Self-Check – 6	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: write true or false. (3point each)

1. Safe job procedures are a series of specific steps that guide a worker through a task from start to finish in a chronological order.

2. Safe work procedures should be included in the company's "Worker Orientation" program.

Test II: Choose the best answer (3point)

1. Safe work practices are generally written methods outlining how to perform a task with minimum risk to:

A. people,

B. equipment,

C. materials,

D. environment,

E. all

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

You can ask you teacher for the copy of the correct answers.

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