

Bakery

Level - C



Context

Pratham has been registered with the National Institute of Open Schooling NIOS, Delhi under the Open Basic Education programme (OBE) Registration no. OB1100502 since the year 2002. Pratham carries out the academic and administrative functions of this programme.

The NIOS board introduced the OBE programme as an alternative educational programme, equivalent to the Elementary Education Programme of the formal education system. Over the years, since the inception of the programme, Pratham identified children who were out of the education system and needed a platform to be included. We acknowledged the need to adapt the current curriculum to suit the needs of all children. Keeping in mind the NCERT, State Board, and NIOS guidelines, this adaptation is aimed to provide children with an opportunity to equal and approachable learning.

Note: The current developed content is in sync with the curriculum guidelines developed and designed by the NIOS Board. The representative images in this book have been taken from google images. We thank and give credit for the images to Google. In case of any changes, the POS team will inform registered schools and individuals accordingly.

Foreword

The team has worked very hard to put this curriculum together. I hope that children will find this curriculum simple and friendly. The teachers using this will surely benefit. This syllabus would not have been possible without the teamwork of all the individuals who are experts in their own fields.

A committee was constituted to affirm and ascertain the quality and validate the Pratham Open Basic Education content for wider use. This committee has reviewed the content, design and applicability.

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Lesson - 1

Cooking



OBJECTIVE : This course is aimed at developing basic cooking skills in children so that they can help others in meal preparation as well as make simple meals for themselves.

What is Cooking?

Cooking is the practice or skill of preparing food by combining, mixing, and heating ingredients.

Why do we cook food?

1. Cooking makes food easy to digest.

When food is cooked it becomes soft so that can be easily chewed and swallowed. The juices that digest food are able to mix well with the softened food. Hence, the food gets simplified for use by our body for digestion.



2. Cooking improves the appearance, texture, colour, flavour and taste of the food.

Cooking improves the taste and flavour of food, and changes its colour and appearance. Addition of spices and condiments during cooking further improves the acceptability and palatability of foods.

3. You can make a variety of dishes.

Cooked foods provide variety in our meals.

You must have seen a variety in cooking potatoes – such as pakora, potato chips, aluparatha and batata wada.

4. Cooking helps to keep the food longer, and makes the food safe and sterile.

Cooking destroys or inactivates the harmful organisms such as bacteria and viruses which are present in certain food. The cooked food can stay for longer time without getting spoilt. E.g. Milk

Benefits of Cooking

- Ø Makes food digestible.
- Ø Improves the colour, flavour, taste and appearance of food.
- Ø Makes the food attractive so that we feel like eating it.
- Ø Helps to provide a variety in our meals.
- Ø Makes food last longer.
- Ø Makes food safe for eating.



EXERCISE :

1. Answer the following questions.

a) State any two reasons for cooking food.

b) Write any three benefits of cooking.

c) Name a few spices that you add to your food to enhance the flavour.

Activity

Do you like cooking?

How often do you cook?

How do you make your favourite dish ?

What are the things do you like to make?

Observe the picture and write five sentences about it.



Lesson - 2

Kitchen Tools



Kitchen Tools

A kitchen is filled with different tools, utensils and equipment, each performing a particular task. It is beneficial to know their names and uses before cooking. The difference between hand tools and utensils is that hand tools can literally be held and operated by hand. Utensils include pots, pans and mixing bowls that you use in a kitchen. Many of these require more than one hand to operate. Appliances like refrigerator help us to store the food and keep it fresh whereas microwave oven and stove help us to cook/heat the food.

Types of Equipments

- Kitchen equipments can be classified in two categories according to their size:

Small Equipments: Kitchen equipments that are easy to carry and move around the kitchen are known as small equipments. E.g. knife, grater, rolling pin.



Large Equipments: Kitchen equipments that are usually immobile and are often fixed to the floor or a bench are known as large equipments. E.g. oven, refrigerator, mixer.



- Apart from their size, we can also categorise equipment as being non-mechanical, mechanical or powered.

Non-Mechanical Equipments

- Non-mechanical equipments generally do not have any moving parts.
- There are usually small.
- Most hand-held tools and utensils fall into this category.

E.g. knives, mixing bowls and spoons.



Mechanical Equipments

- Many kitchen tasks are time consuming and repetitive. Hence, we use a variety of mechanical devices in order to make these tasks easier.
- These mechanical equipments are small enough.
- They are either held in the hand or moved around freely.



Powered Equipments

- These equipments need electricity, gas or steam to work.
- They are large and heavy.
- They are fixed in one spot.
- Most powered equipments with moving parts, like mixers and blenders, are driven by electricity.
- Ovens, boilers and steamers, which have few moving parts, but generate heat, are usually powered by gas, wood or electricity.



- Improvements in the design and manufacture of powered equipments mean that one person can do the work of several people in a very short time.
- Also, some tasks are performed better by machines than could ever be done by hand.

Kitchen Verbs



Grate



Grill



Layer



Level



Melt



Pinch



Pour



Scramble



Serve



Simmer



Slice



Spread



Stir



Taste



Add



Bake



Blend



Boil



Bread



Broil



Chop



Cut



Dip



Fry

Equipment Chart

The following chart is a useful way to categorise the different types of kitchen equipments.

Non-mechanical

Small Items		Large Items	
Hand Tools	Utensils	Mobile and Bench-top	Fixed or Immobile
1) Knives 2) Whisk 3) Piping bag 4) Piping nozzles 5) Scraper 6) Wooden spoons 7) Plain rolling pin 8) Measuring-spoons	1) Mixing bowls 2) Colander 3) Sieve 4) Ladle 5) Spoons 6) Sauce pans 7) Fry pans 8) Tongs 9) Scoops 10) Measuring jugs 11) Grater 12) Oven trays and dishes	1) Mixing bowls 2) Pans	Benches Shelves

Non-mechanical

Small Items		Large Items	
Hand Tools	Utensils	Mobile and Bench-top	Fixed or Immobile
1) Egg slicer 2) Hand juicer 3) Kitchen scissors 4) Potato scoop	1) Rolling pin 2) Can opener 3) Scales 4) Vegetable mill 5) Timer 6) Mandolin 7) Thermometer 8) Mortar and pestle	Pan-scales	Floor scales

Powered : gas, steam or electric

Small Items		Large Items	
Hand Tools	Utensils	Mobile and Bench-top	Fixed or Immobile
1) Wand-type 2) blenders 3) Electric knives	1) Scales 2) Blender 3) Food processor and attachments 4) Electric mixer 5) Timer 6) Thermometer	1) Electric mixer 2) Potato peeler 3) Bowl 4) Chopper 5) Electric slicer 6) Deep fryer 7) Microwave 8) Toaster	1) Refrigerator 2) Freezer 3) Boiler 4) Brat pan 5) Dishwasher 6) Steamer 7) Stove 8) Oven 9) Electric mixer 10) Bain-Marie 11) Char Grill 12) Flat top grill 13) Salamander 14) Hot press 15) Deep fryer

EXERCISE :

1. Write the uses of the following equipments :

a) Peeler - _____

b) Frying Pan - _____

c) Mixer - _____

d) Refrigerator - _____

e) Colander - _____

f) Juicer - _____

g) Oven - _____

Activity

1. Grating a cucumber



Ingredients : Cucumber

Equipments : Peeler, Grater, Plate, Napkin

Method:

- Peel a cucumber using a peeler.
- Grate the cucumber onto a plate using the grater.

2. Extracting juice from an orange/sweet lime



Ingredients : Orange/Sweet Lime

Equipments : Knife, Juicer, Glass, Napkin, Cutting board

Method :

- Cut the orange/sweet lime on a cutting board using a knife.
- Take a juicer. Place the cut orange on the top of the juicer.
- Turn the orange in clockwise direction to extract the juice.
- Pour the juice into a glass.

Lesson - 3

Personal Hygiene

Cooking and preparing meals are a great way to have fun and to learn about healthy eating. However, it is important to create a safe and happy environment when preparing food as well as learn how to handle food safely and hygienically.

Personal hygiene is the first step to good health. It not only protects you from poor health, but also shields those around you from suffering illness that are from poor personal habits.

Some of the habits to maintain hygiene are:

- Wash your hands with soap and water before and after handling food.
- Wear a hygiene cap or tie back long hair.
- Wear a clean apron.
- Do not sneeze or cough on the food.
- Store food appropriately.
- Wear closed-in shoes to protect your feet in case of hot spills or breakages.
- Keep food preparation surfaces clean.
- Wash vegetables and fruits under cold water before use.
- Wipe up food spills immediately.
- Wash kitchen and eating utensils after use in soapy water. Wash the cleanest dishes first, and messiest dishes last.
- Check the expiry date on all packaged food.
- It's important to make sure that an adult is supervising the children at all times in the kitchen. The adult can help with



the more difficult tasks, such as chopping vegetables, using the stove, and taking hot food out of the oven or microwave.

1 Always wash your hands for at least 20 seconds with warm soapy water before cooking. Always wash your hands after going to the bathroom.

2 Always keep your nails short so dirt and germs don't live under your nails.

3 Hair must be tied back or a hat or hair net must be worn so hair does not get into food.

4 Always remove all hand jewellery before cooking. Germs live underneath and on jewellery and may get in the food.

5 Enclosed shoes must be worn in the kitchen.

6 Your apron and clothing must be clean every time you come to your kitchen.

7 Do not come to the kitchen if you are sick.

EXERCISE :

Make a chart on personal hygiene

Lesson - 4

Uniforms And Protective Clothing

While cooking, a uniform is worn for safety reasons as well as hygiene reasons.



Safety Reasons

- a) Protect the body against burns from boiling hot liquids.
- b) Protect the body from heat rays from ovens and grills.

Apron

- An apron serves many purposes in the kitchen.
- Protects your clothes from stains.
- An apron has pockets to keep things like small napkin, knives and cutlery.



Shoes

Good quality shoes serve more than just one purpose -

- You can stand for long periods of time without aches and pains.
- They can protect you from safety hazards like dropping of heavy or sharp objects, or spilling of hot liquids.



Fire Resistant Clothing

One of the most important qualities of a professional chef's uniform is that the materials are made of clothing resistant to flame to prevent accidents. You can buy fire resistant clothing and chef's jackets at uniform stores or from a specialty retailer.

Long Sleeves

It may seem silly to wear long sleeves in a hot kitchen, but professionals know that to do otherwise increases your chances of getting burned, either by fire or hot liquids. A chef's jacket is a great way to solve this problem;

you can simply hang it on a hook in your kitchen and put it on whenever you're ready to start cooking. While long sleeves are important, it's also important to make sure that your sleeves are not so loose fitting that they hang by the flame when you're at the stove. If you go with a chef's jacket, make sure to try it on first so that the sleeves aren't too long. Not only is this distracting, but it's also an easy way to catch your sleeve on fire.



Hair Restraints

There's no health code that says you have wear a hat or head cover, but it still makes perfect sense to do so.

Wearing a hat serves several purposes. First, it keeps hair out of your food. Second, long hair can very easily get caught in equipment or catch fire.



The toque is a chef's hat that dates back to the 16th century. Different heights may indicate rank within a kitchen.



Kitchen Towel

A kitchen towel is an important accessory to have on hand in the kitchen.

It can mop up spills quickly, keep a cutting board stable on the counter, or remove that hot pan from the oven before you can get to your oven mitt.

Buy towels that are heavy duty and absorbent, and buy a few so that you always have a clean one on hand. Use it to mop up spills, but make sure you don't use a wet towel to remove a hot pan from the oven. If you have an apron, a towel is the first thing you should put in one of the pockets.



EXERCISE :

1. Write the uses of the following :

a) Apron - _____

b) Kitchen towel - _____

2. Match the following :

1) Hair restraint



2) Apron



3) Kitchen towel



4) Long sleeves



3. Write the following statements are True or False :

1) Not necessary to wear apron while cooking. _____

2) Wash your hands with soap and water before
and after handling food. _____

3) Do not sneeze or cough on the food. _____

4) Personal hygiene is the first step to good
health. _____

5) Not necessary to check the expiry date on
all packaged food. _____

Lesson - 5

Safety Porcedure In Handling Equipment



A busy kitchen can be a dangerous place indeed, with many hazards, including sharp edges, heat and open flames, oils and acids, and a fast-paced working environment. Therefore, you must maintain a high degree of safety procedure in handling equipment in order to prevent injuries.

BASIC KITCHEN SAFETY TIPS

1. Make sure all wires, cords and plugs on your appliances are not frayed and that the plugs have 3-prong grounded connections. This would include coffee makers, toasters, blenders, microwaves and mixers.
2. Don't use extension cords for a cooking appliance, as it can overload the circuit and can cause fire.
3. Get rid of any appliance that is broken or damaged. New ones are very inexpensive these days.
4. Don't leave the kitchen with pots & pans cooking on the stove. Make sure to turn off burners as soon as you take the pot off.
5. Avoid wearing inappropriate clothing while cooking. That means loose sleeves and sweaters.
6. Keep dish towels, pot holders and oven mitts away from the stove.
7. Keep matches and lighters in high places where curious little hands can't reach them.

8. If using candles in the kitchen, don't leave the room (or home) while they're burning. Make sure they are in a safe place and are in flame proof containers.
9. Check furniture, curtains, dish towels, etc. to be sure they are not blocking heaters or vents.
10. Keep a fire extinguisher in or near the kitchen, but not near the stove or the heater.
11. In case of a grease fire, salt and/or baking soda will help if you do not have a fire extinguisher.
12. Keep emergency numbers handy.
13. Scalding is one of the most common injuries in the kitchen. Make sure to turn pot handles away from the front of the stove and away from little curious hands.
14. Scalding can occur from hot steam as well. Be careful when lifting lids from hot food.
15. Handling Knives:
 - (a) Always cut away from your body when using a knife. It can slip and cut you.
 - (b) Always use a cutting board.
 - (c) Protect your counter tops.
 - (d) Keep blades sharp.
 - (e) Keep knives clean (including handle) – slippery handles can cause injuries.
 - (f) Don't put knives in a sink of soapy water – they may not be seen and accidents can occur.
 - (g) Wash and dry carefully, keeping sharp edges away from your hands.
 - (h) Always lay them flat, never on the back or edge.

- (i) Don't attempt to catch a knife as it falls – better it hits the floor than cut your hand.
 - (j) Wash knives with warm soapy water after each use.
16. Be sure appliances are unplugged before touching sharp
 17. Never stick a fork in a toaster to retrieve trapped toast – you may get shocking results.
 18. Always be sure the blender is unplugged before touching the blades.
 19. Be careful of sharp edges: scissors, broken glass, potato peeler, knife.
 20. Never ever, ever leave cooking foods unattended – not even for a minute.
 21. Casualness causes casualties – don't answer or talk on the phone while cooking – you can be distracted and injuries can result.
 22. Clean up spills immediately – wet floors are slippery when wet.
 23. Keep the kitchen floor clear of toys and other items.
 24. Be certain that walking areas are always clear of toys and other items.
 25. Keep young children out of the kitchen while cooking.
 26. Always use a step-stool to reach high places.
 27. Store cleaning supplies and all chemicals in a safe place. Use safety latches.
 28. While cutting chillies, we should not touch our eyes or any other part of our body to avoid chilly burn.



Equipment Safety

Many pieces of kitchen equipment use a chopping or mincing action with sharp blades moving at high speed and can cause serious injury if not used properly.

You need to be extra careful and follow the proper health and safety regulations when using this type of equipment.

Before you use any piece of kitchen equipment, you should spend some time reading through the operator's manual.

The manual will not only contain information about how to use the equipment, but will also tell you how to clean and maintain the equipment.



Kitchen Safety Rules



- Always wash your hands before and after handling food.
- Tie back long hair.
- Wear an apron and roll up your sleeves.



- Keep food preparation surfaces clean.
- Wash fruits and vegetables under cold water before use.



- Always ask an adult before handling knives or going near hot things.



- Handle knives and other sharp equipment with care.
- When using a knife, always cut away from yourself or downwards on a chopping board to avoid cutting yourself.



- Turn handles of saucepans away from the front of the stove when cooking.
- Use oven mitts when taking hot dishes from the oven or microwave.



- Do not run around the room where food is being prepared.
- Wipe up food spills immediately.



- Store food appropriately in sealed containers. Always keep raw meat away from cooked meat at the bottom of the fridge.
- Wash kitchen and eating utensils after use in hot soapy water.

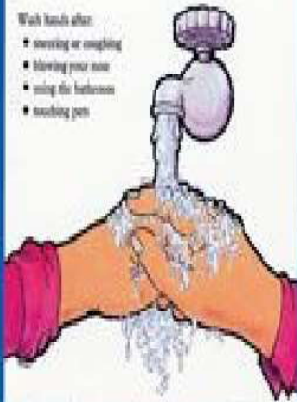


Wash Your Hands and Utensils

Keeping your hands as well as your equipment and work area clean will prevent bacteria from growing and spreading. Wash with hot soapy water.

Wash hands after:

- sneezing or coughing
- blowing your nose
- using the bathroom
- touching pets



Food-Handling Tips

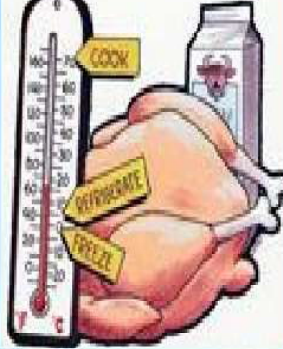
- Rinse all fresh produce.
- Keep foods away from household cleaners and chemicals.
- To taste food while cooking, use a clean spoon. Do not use the mixing spoon or your fingers.
- Do not handle food for others when you are sick.
- Use a hand towel for drying hands; a dish towel is for dishes only.



Keep Food at Safe Temperatures

Keep all food either hot or cold. This will stop dangerous bacteria from growing. Do not leave food at room temperature for over two hours.

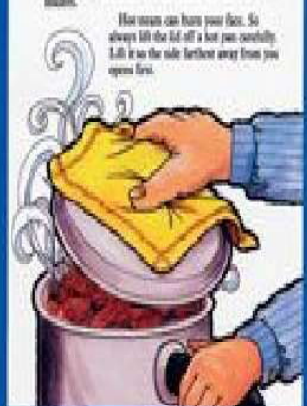
- Cook and reheat at temperatures above 71.1°C (160°F).
- Refrigerate at temperatures below 5.0°C (41°F).
- Freeze at temperatures below 0°C (32°F).



Use a Pot Holder and Lift Lids Away from You

Pick up hot pans, lids, and lids with thick, dry pot holders.

Hot steam can burn your face. So always lift the lid off a hot pan carefully. Lift it so the side furthest away from you opens first.



Turn Handles Back

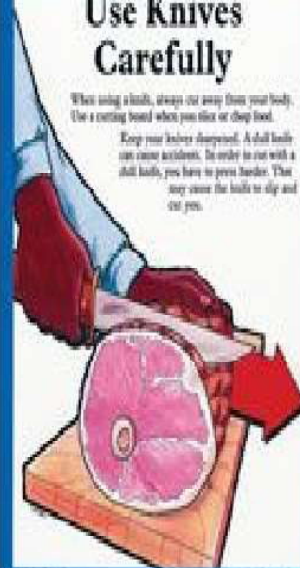
Knocking over a pan can spill burning hot food on you. Always turn pan handles away from the front of the range. This way, nobody will bump into them by accident.



Use Knives Carefully

When using a knife, always cut away from your body. Use a cutting board when you slice or chop food.

Keep your knives sharpened. A dull knife can cause accidents. In order to cut with a dull knife, you have to press harder. This may cause the knife to slip and cut you.

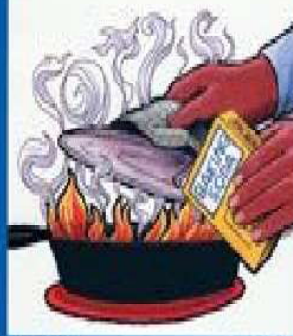


Fry with Caution

Cook greasy foods at medium or low heat. Make sure the food is dry. Water on food causes hot fat to splatter. It can burn you.

If hot fat catches fire:

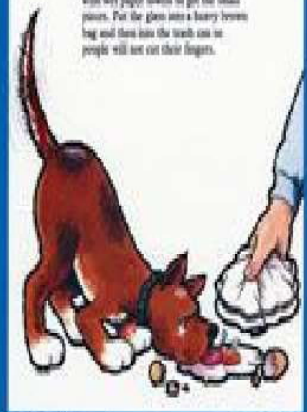
1. Turn off the heat.
2. Cover the pan.
3. Pour baking soda or salt on the flames.



Clean Up Spills

Wipe up any spills or food immediately. Wet floors are slippery and can cause a fall fall.

If glass gets broken, use a broom and dustpan to clean it up. Wipe the floor with wet paper towels to get the small pieces. Put the glass into a heavy brown bag and then into the trash can so people will not cut their fingers.



Wash Knives Separately

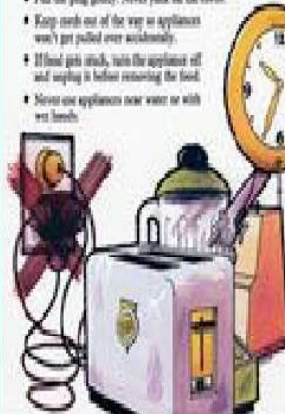
Never put sharp knives into a sink full of soapy water. You might reach in and get a hot cut.

Instead, wash each knife by itself. To dry, run a dishcloth along the back side of the blade.



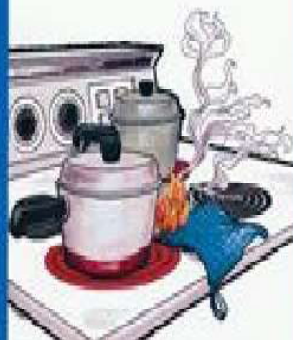
Use Appliances Safely

- Use only one appliance at a time in each outlet.
- Unplug appliances when they are not being used.
- Pull the plug gently. Never yank on the cords.
- Keep cords out of the way so appliances won't get pulled over accidentally.
- If food gets stuck, turn the appliance off and unplug it before removing the food.
- Never use appliances near water or with wet hands.



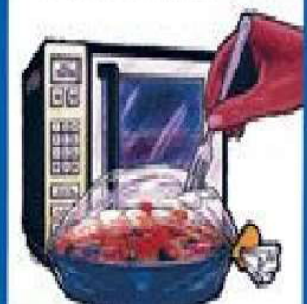
Keep Burners Clear

Be sure that books, papers, plastic containers, pot holders, and all other items are kept away from the stove. Remember, a burner that is turned off can still be very hot.



Rules for Microwave Safety

- Do not run the oven when it is empty.
- The door must be closed for the oven to operate.
- Do not use metal utensils, metal dishes, or metal-foil in a microwave oven.
- Make a hole in plastic pouches. They need some fresh air. If tightly closed, they could explode.
- Use pot holders. Be careful of hot food!



EXERCISE :

1. Write any two safety procedures you should follow before using an electrical equipment.

2. Fill in the blanks.

- 1) _____ the body against burns from boiling hot liquids.
- 2) A kitchen _____ is an important accessory to have on hand in the kitchen.
- 3) Keep dish towels, pot holders and oven mitts away from the _____.
- 4) Never stick a fork in a _____ to retrieve trapped toast – you may get shocking results.
- 5) Keep a _____ in or near the kitchen.

3. Write whether the following statements are True or False

- 1) Wear loose sleeves and sweater while cooking. _____
- 2) Keep the kitchen floor clear of toys and other items. _____
- 3) Keep young children in the kitchen while cooking. _____
- 4) Wash knives with warm soapy water after each use. _____
- 5) Don't use extension cords for a cooking appliance. _____

Lesson - 6

Pre-preparation Of Foods

1. Washing

Washing is necessary to remove dirt and dust particles.

(This is a great way of teaching the students names of vegetables and fruits. This will not only help them to identify the fruits and vegetables, but will also help them in sorting, separating and assembling them.)



2. Cutting



We convert ingredients into required sizes by cutting.

(Cutting soft ingredients like butter, mushrooms, cheese cubes, sides of the bread and other soft fruits and vegetables using a strong plastic knife)

3. Separating leaves from stems

For example – Leaves of vegetables like spinach, methi are consumed.



4. Peeling



For example – The activity for the same would be peeling boiled potatoes.

5. Squeezing

Squeezing lemon for lemon juice/lemonade, squeezing sweet lime to make juice.

For example – Lemon, Sweet Lime



6. Stirring



To add glucose powder in a glass of water and stir it.

(Stir sugar into lemon juice)

7. Mashing with a fork or masher

This can be used to mash potatoes or any other boiled/soft fruit or vegetable. It is advisable to watch out for temperature.



8. Grating



Grate cheese, carrots, paneer with the help of a grater.

9. Using a pestle and mortar

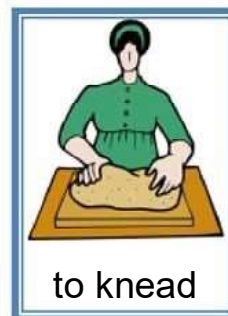
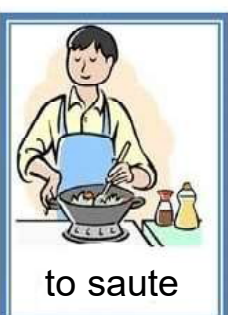
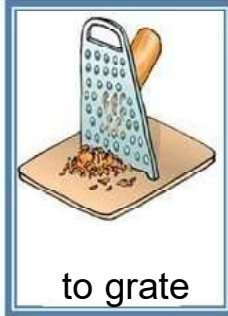
It is a tool that is used to crush spices like pepper, clove or crush garlic and ginger and make spice mixes.



10. Mixing

Using either a spoon or hands to mix together ingredients such as salad, dry snacks and bhel.





Useful Cooking Verbs



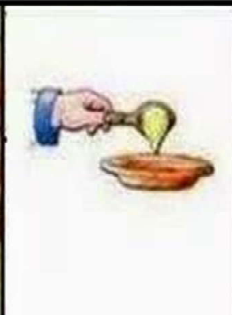
Crush



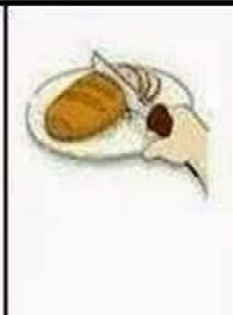
Mash



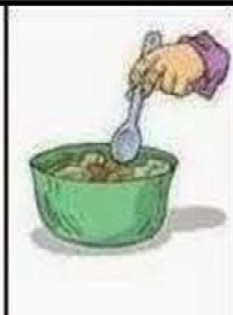
Mix



Serve



Slice



Stir



Melt



Grill



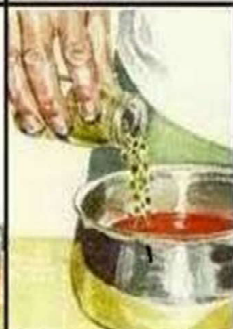
Simmer



Pinch



Pour



Sprinkle



Peel



Grate



Squeeze



Carve



Spread



Strain/Drain

KITCHEN VERBS



CHOP



MINCE



BAKE



SLICE



POUR



STEAM



ROLL



BREAK



KNEAD



BOIL



MEASURE



SPRINKLE



GRATE



STIR



WHISK



STRAIN



FRY



CLEAN



MASH



SERVE

Lesson - 7

Methods of Cooking

There are different methods of cooking. They are:

Boiling

- Before boiling, wash the food items thoroughly.
- Cover the food with adequate quantity of water.
- First boil the water and then put the food carefully into the water.
- Cook in a pan which has a well-fitting lid. This way the steam from the boiling water will not go out from the pan and water will not dry up. Food cooks faster when the cooking pan has a lid on.
- Do not boil the food longer than needed. If food is cooked for a very long time, it will lose its colour, shape and taste. Potatoes and the other root vegetables should be boiled with their skin on.
- Water used for boiling should cover the food. Water soluble nutrients present in food dissolve in the water in which the food is being boiled.
- You can use this nutrient rich water to make gravy for another vegetable.



Simmering or Stewing

- Stewing is cooking for a long time in water, below the boiling point.
- Food is cooked in a small quantity of water. Once the boiling starts, the flame is lowered and the food is allowed to cook slowly.

Advantages: This method is suitable for cooking hard and tough food like dals and dried vegetables.

While cooking by this method, we do not have to constantly keep an eye on the food. And there are lesser chances of food getting burnt.

Steaming:

- Steaming can be done for solid and semi-solid foods.
- Water is heated in a pan on the fire.
- The pan is covered with a clean muslin cloth. Food is placed on the cloth.
- The steam passes around the food and cooks the food placed above.



Example: To make idlis, the batter is put in the idli mould, which is then lowered into a container with water at the bottom. The steam cooks the idlis.

Advantages:

- Steaming shortens the duration of cooking.
- Helps to conserve nutritive value, colour, flavour and palatability of food.
- Steamed food is light, nutritious and easy to digest.

Frying:

Frying is the process of cooking food in hot fat or oil. Food can be fried in two ways.

- a) Shallow frying b) Deep frying

Advantages of frying food

- Quick method of cooking
- Maintaining quality of food is increased

Some precautions while frying food

- i. Food should be cut in suitable size and shape.
- ii. Do not put in too many pieces of food at the same time. It will lower the temperature.
- iii. Food should be fried to golden brown colour on both sides by turning over the food, if necessary.

Example: puri, samosa

a) Shallow Frying

- You need very little oil for frying.
- You can fry them on a tava or a frying pan.
- The food is turned over, so that both sides may be browned and cooked.



Example: Vegetable cutlet and potato pattice

b) Deep Frying

- Ghee / oil in a kadhai heated to the smoke point.
- The food to be fried is carefully put in the hot ghee / oil.
- The food should be completely dipped in ghee / oil.
- Put only a few pieces of food to be fried at a time.
- Avoid using large quantity of oil / ghee or overheating.
- If some ghee is left over after frying, drain and store in a container to be used again.
- Frying is a quick method of cooking as compared to boiling or stewing.



Pressure Cooking

- Pressure cookers are generally of an aluminum alloy which is very strong.
- Raw food is put in the container along with water, and cooked under pressure.
- Under pressure, the temperature of water is increased up to 112°C .
- Food is cooked faster than boiling.



Advantages: Pressure cooking kills all the bacteria and hence, the food is safe and hygienic for us to eat. Rice, dal, meat, potatoes, roots, beans and peas are cooked in the pressure cooker.

Microwave Cooking

- Food is cooked by microwave radiation.
- Heat is generated in the food by rapid vibrations of water molecules produced by microwave energy.
- It is the quickest method of cooking. Cooking time is reduced to ten times less than other methods of cooking.



Cooking in dry heat

There are three methods of cooking food by dry heat using hot air.

- a) Baking b) Roasting c) Grilling

a) Baking

- Baking is the method in which food is placed inside a closed box called an oven.
- The air inside the oven is made hot by fire or electricity.
- The food gets cooked by hot air.
- These ovens are also known as 'Bhatti'.
- In very big bakeries, the air is heated by electricity.



Roasting

- Cooking food by dry heat is called roasting.
- Roasting is cooking on a glowing fire.
- While roasting, the food is put directly on the hot tava, hot stand or hot fire and cooked.



Example: Chanas, brinjals, potatoes, maize, ground nuts, cashew nuts, papad, meat are cooked by this method.

Grilling

- Grilling is cooking over a glowing fire.
- The food is supported on an iron grill over the fire, or between electrically heated grill bars.
- The bars are brushed with oil to prevent food sticking and can be heated by charcoal, coal, gas or electricity.
- The food is cooked on both sides to give the distinctive flavour of grilling.



Example: Chicken, fish, potato, sweet potato, brinjal can be grilled for making various dishes.

EXERCISE :

1. What is the difference between shallow frying and deep frying ?

2. Look at the pictures and write the method of cooking.









Lesson - 8

Conservation of Nutrients

Saving nutrients during the process of cooking is called conservation.

Let us see how we can conserve nutrients in foods.

1. Wash vegetables before cutting them so that minerals and vitamins are not destroyed. Do not wash the foods more than necessary.
2. Peel vegetables thinly as vitamins and minerals are found just under the skin.
3. Cut vegetables into large pieces just before cooking. Small pieces mean greater loss of nutrients.
4. If vegetables are to be cooked in water, put them into boiling water.
5. Use just enough water for cooking. Do not throw away the extra water. Use this extra water to cook some other food.
6. Do not use cooking soda. Use of tamarind or lemon juice helps to conserve the vitamins.
7. Cook in a pan which has a well-fitting lid. When you cook in an uncovered pan, most nutrients are lost.
8. Do not overcook the food as many nutrients will be destroyed.

Definition of Enrichment

The process of improving the nutrients in foods by special methods is called Enrichment.

Importance of enhancing nutritive value of food

- To meet the nutritional requirements of the body.
- To make proper selection and preparation.
- To consume food in a balanced manner.

- To improve the flavour and texture of the food.
- To get variety in food.
- To assist in planning the daily menu, keeping in view the nutrient content of the food.
- To prevent deficiency diseases in the body.
- To develop good food habits.

Methods of Enrichment of Nutrients

There are three methods by which you can enhance or increase the nutrients present in your food.

a) Combination

b) Fermentation

c) Germination

Let us study about each one further.

a) Combination

Combination is the process of combining commonly available foods from different food groups to improve the quality of nutrients. Combination helps you to:



i) Eat a diet that has good quality nutrients.

ii) Enhance the nutrient content of food considerably.

iii) Provide a balanced diet.

b) Fermentation

Fermentation is a process in which some micro-organisms are added to the food. They change nutrients already present in the foods into simpler and better forms and also make other new nutrients.



Curd, bread, khaman. dhokla, idli are all examples of fermented foods.

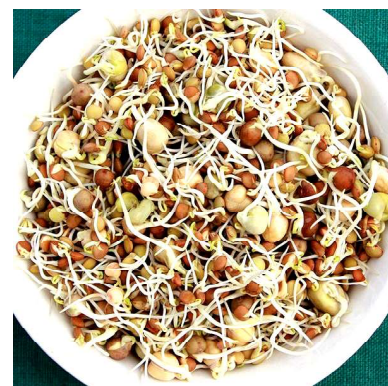
Advantages of Fermentation

- i) Fermentation improves the digestibility of foods.
- ii) The micro-organisms which cause fermentation break the proteins and carbohydrates into smaller parts, which are easier to digest.
- iii) During fermentation of cereals and foods like peas, beans the minerals, calcium, phosphorus and iron are changed into better quality ones.
- iv) These are then easily absorbed by the body.
- v) Fermented foods become spongy and soft, and are liked by children and adults.

c) Germination

Germination is a process in which small shoots come out of the grain or cereal when these are soaked in water.

- Grains like wheat, bajra, jawar can also be sprouted.
- These grains can then be dried in the shade and roasted lightly on a tava.
- They can be ground and used in many dishes.
- Pulses like moong, peas, kala chana are also sprouted first and then steamed and eaten after adding salt, chilli powder, lemon juice and other spices.
- The time and water which each grain or pulse needs for soaking and sprouting is different.
- Normally 8-16 hours are needed for soaking and 12-24 hours for sprouting.



- The cloth in which the soaked grain and cereal is tied should be kept moist all the time.
- In the winter months sprouting can be done faster by using warm water.

Sprouted wheat can be ground it into a fine powder. This can then be fermented, and bathuras made from the dough. Such dough will be rich in vitamins. Here the food is first sprouted then fermented. When sprouting is followed by fermentation, the vitamin content becomes much more.

Germination helps you to increase the digestibility of foods.

- Some carbohydrates and proteins are broken down into smaller and easily digestible forms.
- Grains and pulses become soft after sprouting, so they take less time for cooking and are easy to digest.
- The nutritive value of the food is increased with no additional cost.
- Vitamins and minerals increase when food is germinated. Vitamin B becomes almost double in quantity while vitamin C increases almost 10 times.

EXERCISE :

Home Activity : Germination of pulses (moong, chana)

Ingredients: Chana / Moong, Water

Equipments: Bowl, Napkin, Clean Muslin Cloth or Handkerchief

Method:

- Soak the pulses overnight in a bowl of water.
- Drain the water the next day.
- Put the pulses in a damp muslin cloth or handkerchief.
- Observe the sprouts the following day.

Lesson - 9

Simple Instant Recipes

CORN BHEL

Ingredients:

- Boiled sweet corn - 1cup
- Finely chopped onion - ½ cup
- Finely chopped cucumber - ½ cup
- Finely chopped tomato - ½ cup
- Green chutney - 1 tea spoon
- Sweet chutney - 1 tea spoon
- Finely chopped coriander- 2 tea spoons
- Lime juice - 1 tea spoon
- Chaat masala – ½ tsp
- Fine sev - 2 table spoons



Method

1. Put boiled corn in a big bowl.
2. Add onion, tomato, cucumber, green chutney, sweet chutney and lime juice and mix them well.
3. Sprinkle chaat masala and sev.
4. Garnish with coriander and serve immediately.

Nutritional Value

- Carbohydrates : corn
- Vitamins and minerals : tomato, onion, cucumber and chutneys
- Fat and proteins : sev

SPROUT BHEL

Ingredients:

- 2 tbsp olive oil
- 2 cups moong sprouts
- 1 onion, finely chopped
- 1 tomato, finely chopped
- 2 green chillies, finely chopped
- 1 cucumber, finely chopped
- 2 potatoes, boiled, peeled and chopped
- 50 gms paneer (cottage cheese), cut into small pieces
- 100 gms roasted peanuts
- 100 gms roasted chana
- 2 cups puffed rice (kurmura)
- 2 tbsp lemon juice
- salt to taste

Method

1. Heat the oil in a pan and add the moong sprouts. Cover and cook on a slow flame for 2 minutes.
2. Remove from the flame and transfer the mixture in to a bowl.
3. Add the roasted peanuts, puffed rice and chana, and toss well.
4. Add the onions, potatoes, tomatoes, green chillies, cucumber, paneer, lemon juice and salt, and mix well.
5. Serve immediately.

Nutritional value:

- Carbohydrates and fat : potato, olive oil, puffed rice, chana
- Vitamins and minerals : tomato, onion and peanuts
- Proteins : sprout moong



SEV PURI

Ingredients

- Flat puries - 8
- Finely chopped onion - $\frac{1}{2}$ cup
- Finely chopped boiled potato - $\frac{1}{2}$ cup
- Finely chopped tomato - $\frac{1}{2}$ cup
- Finely chopped coriander - $\frac{1}{2}$ cup
- Green chutney - $\frac{1}{2}$ cup
- Sweet chutney - $\frac{1}{2}$ cup
- Fine sev - $\frac{1}{2}$ cup
- Chaat masala - 2 pinch



Method

1. Place puries on the plate.
2. Keep potato, onion and tomato on each puri.
3. Put little green and sweet chutney on top of each puri.
4. Cap the puries with sev on top of chutney.
5. Sprinkle chaat masala and coriander on all puries.
6. Serve immediately.

Nutritional Value

- Carbohydrates and fat : puri, sev and potato
- Vitamins and minerals: tomato, onion and chutneys
- Proteins: sev

LEMON JUICE

Ingredients

- $\frac{1}{2}$ cup lemon juice
- 2 tablespoon sugar



- 1/2 cup ice cubes
- 1/2 cup water
- 1 pinch salt
- 2 lemon wedges

Method

- Mix lemon juice, salt and sugar in a glass.
- Add some chilled water.
- Stir well and add some ice cubes. Garnish with lemon slice and serve.

VEGETABLE SANDWICH

Ingredients

- Bread - 2 slices (preferably whole wheat bread)
- Butter - 2 tsp
- Green chutney - 2 tsp
- Sliced tomato - 4 slices
- Sliced cucumber - 8 slices
- Sliced boiled potato - 4 slices
- Sliced boiled beetroot - 2 slices
- Sliced onion - 2 slices
- Sandwich masala - 1 pinch



Method

1. Spread butter evenly on the bread slice.
2. Spread chutney on the buttered bread.
3. Place sliced cucumber, tomato, potato, beetroot and onion on the bread.
4. Sprinkle sandwich masala on the preparation.

5. Spread butter and chutney on the other slice of the bread.
6. Place that slice on the preparation. Cut it into 4 pieces.
7. Decorate and serve your sandwich.

Nutritional Value

- Carbohydrates: bread and potato
- Vitamins and minerals: tomato, beetroot, cucumber, onion and chutney
- Fat: butter

CHEESE SANDWICH

Ingredients

- Bread - 2 slices (preferably whole wheat bread)
- Butter - 2 tsp
- Cheese slice or grated cheese – 1 slice or 1 cube
- Tomato ketchup
- Chaat masala



Method

1. Butter the bread slices lightly.
2. Spread the cheese slice or grated cheese on the bread slice.
3. Sprinkle chaat masala.
4. Place the other bread slice on it.
5. Cut the cheese sandwich into four pieces.
6. Decorate the sandwich with tomato ketchup.

Nutritional Value

- Carbohydrates: bread
- Proteins, vitamins and minerals: cheese

FRUIT SALAD

Dressing

- 3 tbsp fresh lemon juice
- 3 tbsp granulated sugar
- 3 tbsp olive oil
- 3 tbsp vegetable oil
- 3 tbsp honey
- 2 tsp poppy seeds



Salad

- 8 oranges, peeled and segmented
- 4 apples (preferably 2 gala and 2 golden delicious)
- 4 ripe kiwis, peeled and diced
- 4 bananas, peeled and diced
- 1 ½ cup pomegranate arils (from about 1 large)

Method

- 1. For the dressing:** In a mixing bowl or jar, whisk together lemon juice and sugar until sugar has dissolved.
- 2.** Mix in olive oil, vegetable oil and honey until well blended. Stir in poppy seeds.
- 3. For the fruit salad:** In a salad bowl toss together all of the fruit, then pour dressing over top and gently toss to coat.
- 4.** Serve immediately for best result.

MASHED POTATO BALLS

Ingredients:

- 2 cup potatoes (boiled, peeled and finely shredded)
- 3 tbsp corn starch
- ½ tsp salt
- 1 tsp ginger (finely shredded)
- 1 tbsp green chillies (finely chopped)
- ½ cup grated cheese (Optional)
- 2 tsp oil



Method

1. In a bowl, mix potato, about 2-1/2 tablespoons corn starch, and salt. Oil your palm and knead the potatoes, making into very smooth dough. Add the ginger, green chillies and 1/2 cup grated cheese, and knead it again.
2. Divide the dough into 20 pieces, and roll them between your palms, making them into smooth balls.
3. Heat the oil in a frying pan on medium heat. To check if the oil is ready, put little batter in the oil. The batter should rise to the top, but not change colour right away.
4. Drop the potato balls slowly in the oil, making sure they not to overlap.
5. Fry the potato balls until they turn golden brown, turning them occasionally.
6. When they are golden brown, take them out with a slotted spoon. Place them on a paper towel to absorb the extra oil.
7. Crispy potato balls will be crispy outside and soft inside.

Exercise: Practical assignments

- 1) Grill vegetable Sandwich
- 2) Mix veg. Cheese Balls

Lesson - 10

Simple First Aid at Home

First aid is the assistance given to any person suffering a sudden illness or injury, with care provided to preserve life, prevent the condition from worsening, and promote recovery.

Minor mishaps occur all the time in the kitchen, whether you cut your finger while dicing an onion or scorch your hand against a hot utensil.

First Aid Kit

A first aid kit is a box or case containing basic supplies that are used on someone who is injured or suddenly becomes ill. It is important to have a well-stocked first aid kit in your home so that you can treat minor accidents and injuries. It needs to be kept in a cool, dry place out of the reach of children.

A first aid kit should have the following:

- Cotton
- Antiseptic lotion [Dettol / Savlon Lotion]
- Antiseptic Cream [Soframycin Ointment]
- Band-aid
- Scissors
- Cotton gauze
- Small, medium and large sterile gauze dressings
- Disposable gloves
- Thermometer
- Relief spray



Cuts with knives and broken glass

Things to watch out for: When using knives, extra caution should always be taken along with broken glass in the kitchen area.

Top Tips: Always point knives away from you and your fingers when cutting. If a glass has broken, sweep up with a brush and put it into a separate container. Warn others about the accident in case, there happens to be small pieces left. Use a sponge or a cloth to collect the small pieces left behind.

Action to Take: If a cut does occur, hold the injured area to reduce the blood flow, reducing loss of blood, and then cover with a plaster/band-aid. However, if the cut appears to be deep and serious, or there is glass in the foot or hand, do not attempt to remove the object, but get to a hospital straight away.

Opening cans

Things to watch out for: Be careful when opening cans as the can opener can slip – opened cans will be sharp can easily get hurt.

Top Tips: Use a magnetic can opener to avoid any slip-ups when trying to tackle those tough tin openers. The magnet holds the lid instead of you trying to handle it which can be safer for little fingers.

Action to Take: If you end up cutting yourself on a tin can, apply pressure to stop the bleeding (a clean towel wrapped around the affected area can work if you don't have bandages).

Keep the hand raised above the heart, and if the cut is deep or the bleeding does not cease, then seek medical attention immediately.

Treating a cut

1. Wash your hands before you touch the cut. Doing this will limit the risk of you infecting the cut with bacteria from your hand.
2. Clean the cut. Use clear, running water to rinse the wound. Wash it with medicated soap and pat the cut dry with a clean towel.
3. Check how deep the wound is. If the cut is too deep, the bleeding may not stop and you may need to go to the doctor. If the cut is

minor, the bleeding usually stops after few minutes.

4. Apply an antibiotic cream or ointment on the cut. This will prevent infection.
5. Bandage a cut. Cover the cut with a bandage to keep it clean and prevent harmful bacteria from getting into the cut.
6. Change the dressing once a day till the wound has healed enough.
7. Get a tetanus injection the cut is dirty or deep.
8. Seek medical help if the cut becomes swollen, red, full of pus or you experience fever as these are symptoms of a possible infection.

Minor burns

What are the different types of burns?

Touching a hot utensil or splashing boiling water on your skin are just two common causes of burns around the house. When you get a burn, first check to see which type it is.

- First degree burns are painful, but minor. They turn red and may swell.
- Second degree burns form blisters. The skin may be very red and painful.
- Third degree burns make the skin look white or charred. The burns may not hurt because nerves have been damaged.

Pepper/Chilli burns

Things to watch out for: Using pepper and chillies in the kitchen to spice up a recipe is exciting. However once these spicy ingredients touch the eye or a small cut, peppers it results in a burning sensation.



Top Tips: Wear gloves or even glasses, to stop the excess spices jumping into the eyes, and cover cuts, if any.

Action to Take: To wash your eyes with water until you can

eventually open them – this could take 5-15 minutes. Chilli in the eye can be pretty miserable for all involved, so this is definitely one best avoided!

Burns while handling hot utensils and pans

Things to watch out for: One can get burnt in all different ways, grabbing metal handles of a hot pan, touching the surrounding areas of a stove, or even touching a hot stove, and reaching out and touching hot food and drinks.

Top Tips: Keep the hot pans and food on the back burner of the stove.

Action to Take: Hold the burn under cold running water and keep there to cool for about 10 minutes. Do not as this can cause damage to the skin. After 10 minutes, wrap the burn with cling film. If the burn looks serious or affects an area of skin larger than the palm of your hand – get to a hospital straight away.



How to treat a burn

You can treat minor first degree burns and small second degree burns at home. Third degree burns require medical help.

Place the burnt area under cold running water for at least 5 minutes to reduce swelling.

Apply an antiseptic spray, antibiotic ointment, or aloe vera cream to soothe the area.

Loosely wrap a gauze bandage around the burn.

Take a painkiller to relieve the pain.

EXERCISE :

1. State whether the following statements are true or False.

- 1) Use of tamarind or lemon juice helps to conserve the nutrients. _____
- 2) Fermented food, like idli, is difficult to digest. _____
- 3) We should hold our hand under cold running water if we get a scald or burn. _____

2. List the items necessary in first aid box.

3) Write two names for each:

- Baked food : _____
- Dry fruits : _____

4. Answer the following questions:

- 1) Define "First Aid".

- 2) What safety measures will you keep in mind while handling knives?

3) Differentiate between deep frying and shallow frying.

5. Write short notes on:

1) Enrichment of nutrients

2) Microwave Cooking

Make your own first aid kit.

Lesson - 11

Science of Baking

What is baking?

Baking is a method of cooking food that uses prolonged dry heat, normally in an oven, but also in hot ashes, or on hot stones. The most common baked item is bread, but many other types of foods are baked. Heat is gradually transferred from the surface of cakes, cookies, and breads to their centre. As heat travels through, it transforms batters and doughs into baked goods with a firm dry crust and a softer centre



Materials used for baking

1. Flour

Flour that is used in baking comes mainly from wheat, although it can also be milled from corn, rice, nuts, legumes, and some fruits and vegetables. The of flour used is vital at getting the right results in the end product. Different types of flour are suited to different items, and all flours are different.



Types of flour:

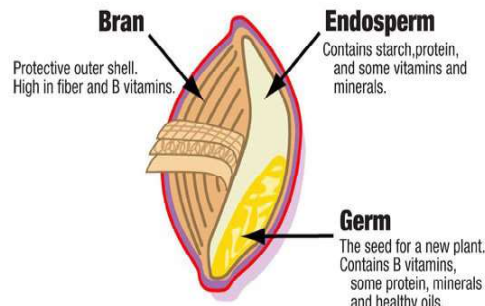
Whole-wheat flour is a powdery substance, a basic food ingredient, derived by grinding or mashing the whole grain of wheat. Whole-wheat flour is used in baking of breads and other baked goods. Whole-wheat flour is a full-flavored flour containing vitamins, minerals and protein. Whole-grain flour is more nutritious than refined white flour.

- **All-purpose flour-** Maida

All-purpose flour, also known as maida, refined flour or simply flour, is made from wheat grains after removing the brown covering.

It is then milled, refined and bleached.

It is very common in Indian cuisine specially for various Indian breads. It is commonly used in baking cakes, pies and other desserts. It may also be used as a thickening agent. It is white and powdery unlike whole-wheat flour which is creamish and grainy.



Whole-Wheat Flour	Brown Flour	White Flour	Self-Raising Flour
Contains all the parts of wheat—bran, Endosperm	Coarser part of bran is removed.	Most of the bran and germ is removed. Contains mainly endosperm.	Has higher protein content.
Used for making chapatis. Also known as 'atta'.	Used for brown breads.	Used for breads, buns, cakes, biscuits.	Used for breads, buns, patiiice.

2. Chemical ingredients used in baking

- **Baking powder-** It is probably the most common aerating agent in baked products like cakes. It is made up of bicarbonate of soda and cream of tartar. Baking powder is a chemical aeration agent.
- **Ammonium bicarbonate**, also known as baking ammonia, is a white powder or crystal that is used in the food industry as a raising agent for flat baked goods, such as cookies and crackers. It was commonly used in the home before modern day baking powder was made available.
- **Baking soda**, also known as sodium bicarbonate, is widely used in baking. This is because it has leavening properties, meaning it causes dough to rise by producing carbon dioxide.

3. Fats used in baking

Generally, fats are solid while oils are liquid. Fats come from a variety of animals and plants. Oils mostly come from plants. In baking, butter, ghee, and refined oils are commonly used. Their main functions are:

- To shorten or tenderise the product
- To trap air during creaming and aerate the cake during baking to give good volume and texture
- To assist with layering in puff pastry
- To help prevent curdling by forming an emulsion
- To add flavour
- To also provide some nutritive value

It is important to add the correct amount of fat as too much fat will make the baked product greasy and unpleasant to eat, while too little fat will leave you with a product that lacks flavour and stales quickly.

- **Butter-** It imparts lots of tenderness and flavour, and can be used in many ways. Butter can be creamed and combined with other ingredients to create fluffy cakes and cookies; it can also be used in pie crusts and pastries for a perfectly flaky finish. Butter is also employed in plenty of pastry and baked good toppings and fillings.
- **Ghee-** Oil and butter can be replaced with ghee in cooking and baking. To create ghee, butter is simmered to separate the ghee from the other components, which are strained off. Ghee traces its roots to the ancient tradition of Ayurveda, where it was considered a sacred, medicinal, cleansing, and nourishing food.
- **Refined Oil-** Liquid oils (commonly neutral-flavoured oils such as vegetable or canola oil) can be used in many different recipes for baking. Oil is frequently used in baking breads and cakes. It results in a slightly more airy, coarse-textured crumb.

Butter	Margarine	Vanaspati Ghee	Refined oil
<ul style="list-style-type: none"> • Made by churning milk fat. 	<ul style="list-style-type: none"> • It is a cheaper butter substitute made from hydrogenated oils. 	<ul style="list-style-type: none"> • Made by hydrogenating vegetable oils. 	<ul style="list-style-type: none"> • Consists of 100^o fats with low melting point.
<ul style="list-style-type: none"> • Contains about 85% fat and rest is water and milk protein. 	<ul style="list-style-type: none"> • Contains hydrogenated oils, ripened milk, colour and salt. 	<ul style="list-style-type: none"> • Contains mainly fat. 	<ul style="list-style-type: none"> • A liquid at room temperature, it cannot be used for creaming.
<ul style="list-style-type: none"> • Has a pleasant aroma and good for bakery due to this. 	<ul style="list-style-type: none"> • Has no aroma, but rest of the physical characteristics are similar to butter. 	<ul style="list-style-type: none"> • Has grainy texture and no aroma. Due to the grainy texture, less suitable for baked goods. 	<ul style="list-style-type: none"> • Mainly used for frying and tin greasing
<ul style="list-style-type: none"> • Should be firm and stored at a temperature below 40^oF. 	<ul style="list-style-type: none"> • Can be stored at room temperature. 	<ul style="list-style-type: none"> • Can be stored at room temperature. 	<ul style="list-style-type: none"> • Can be stored at room temperature.

4. Sugar

Sugar gives cakes and other baked products sweetness, and is used in many forms and many ways. Sugar improves the crust colour of baked products, improves flavour, and helps to retain moisture, keeping products softer for longer time, and so reducing staling. Examples of sugar form are granulated sugar, castor sugar and icing sugar. Sugar also comes in liquid form such as syrup, honey and caramel.

- **Crystalline sugar-** Crystalline sugar is made from sugarcane and sugar beets. It is also the most common type of sugar used in baking and cooking.

- **Powdered sugar or icing sugar-** Sugar that has been ground so fine that it becomes a powder. It is then mixed with a little bit of corn starch to prevent it from clumping.



- **Brown sugar-** Brown sugar is made of crystalline sugar combined with a small amount of molasses, which is responsible for its characteristic colour and rich flavour. Brown sugar is used very similarly to granulated white sugar, but provides a touch of extra flavour. Common uses for brown sugar include sweetening baked goods, beverages, sauces, and marinades.
- **Glucose-** Generally glucose for baking and cooking use comes in two forms: powder and syrup. The powder looks a lot like icing (powdered) sugar, but is not quite as fine and it is only 50-75% as sweet as regular sugar.
- **Honey-** Sugar can be substituted with honey in cooking and baking. Substituting honey for the full amount of sugar may produce a heavy texture in baked goods. In recipes calling for large amounts of sugar, such as cakes or breads, substitute honey for half of the sugar and reduce the liquid to make a lighter product.

5. Other ingredients

- **Milk** is used in baked products to improve texture and mouthfeel. The protein in milk also gives a soft crumb structure in cakes, and contributes to the moisture, colour and flavour of a baked product. Cakes that contain milk also tend to have a longer shelf life.
- **Milk Powder-** Powdered milk is typically low-fat milk with the water removed. That leaves the protein, lactose, and remaining fat. Low-fat powdered milk has a long life of about a couple of months.
- **Condensed Milk-** Sweetened condensed milk has rich sweet flavour and is used widely in recipes for desserts and confectionaries. It is commonly used as a topping or it can be beaten with sugar and butter and baked to make bakery products. You can use it for making desserts such as coconut laddoos, kheer, and condensed milk fudge.

- **Corn flour-** Corn flour, or cornstarch, is the finely powdered white starch from maize kernels, which are soaked and ground to separate the germ from the bran. It is virtually tasteless, and is used as a thickening agent.
- **Salt-** Salt is usually only added in very small amounts to baked products, but it has a noticeable effect on the flavour of baked products. It not only provides its own flavour, but brings out the natural flavour of other ingredients.
- **Eggs-** Eggs are another basic ingredient in many baked products. They provide structure, aeration, flavour and moisture. They also tenderise cakes, and add colour and nutritive value.
- **Cream-** Cream has a rich and creamy texture that makes cakes baked with it a real treat. If over whipped, this cream might become too thick for use. So, tablespoons of milk are often added to the cream before whipping it. Cream is used extensively as cake topping and filling.
- **Cocoa & chocolate powder-** It is a powder derived from the cocoa bean, and is used in everything from baked goods to savoury dishes to cosmetics. Cocoa powder is a key ingredient in things like chocolate cake, chocolate frosting, and other chocolate-based goodies and drinks.
- **Essence** is a flavouring agent: Such as vanilla essence, rose essence, and pineapple essence.

Lesson - 12

Icing

What is icing?

Icing is used to decorate a cake and make it look more attractive. It is made out of butter, sugar, cream, and flavour. There are different types of icing. Icing is used for decorative purpose as well as for making the cake last for longer time. It adds to the creamy delicious sweetness of the cake.

FOLLOWING MATERIALS ARE REQUIRED FOR ICING



NOZZLES



ICING BAG



PALETTE KNIFE



SERRATED
KNIFE



CAKE TURNTABLE



CAKE STAND



BAKING TRAY



FOOD ESSENCE



FOOD COLOURS



CAKE BOARD



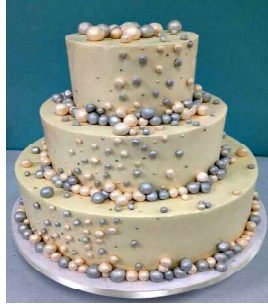
ICING



COOLING RACK



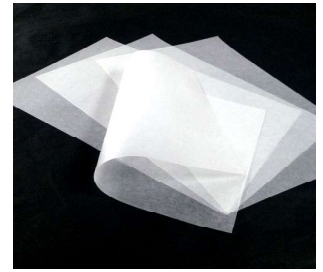
RIBBONS



BEADS FLOWER



GEMS



BUTTER PAPER

Types of Icing

Butter Icing

This is the most common kind of cake icing, made from butter, sugar, milk, and vanilla. The mixture is creamed until you get a soft, cream icing. Cakes with buttercream icing should be refrigerated so that the icing doesn't melt.

Ingredients

250 g butter

450 g icing sugar

60 ml milk

- Place the butter in a large mixing bowl. Use an electric beater to beat for two minutes or until light and fluffy.
- Gradually add the icing sugar and beat until the mixture is very pale and fluffy.
- Gradually add the milk and beat until smooth and well combined



Cream Icing

Ingredients

400 g chilled fresh cream

80 g icing sugar

Ice

¼ tea spoon Vanilla essence

- Place the chilled fresh cream, sugar and vanilla essence in a clean bowl.
- Place the chilled fresh cream, sugar and vanilla essence in a clean bowl.
- Place this bowl over a bed of ice kept in another bowl.
- Using an electric beater, beat the cream till it is light and fluffy, and doubles in volume.



Glaze Icing

Ingredients

250 g icing sugar

4 table spoon warm water

Few drops of food colouring

- Sieve the icing sugar into a clean bowl.
- Gradually add the water to obtain the consistency of thick cream.



Chocolate icing

We can make chocolate icing or a ganache by taking equal parts of chocolate and cream, along with butter and any additional flavourings desired. This can be used for pouring over cakes, dipping cupcakes and cookies, pouring over ice cream, as well as other pastries or sweet treats.



Icing a cake

Once the cake is cool and the icing/frosting made, it's time to decorate your cake.

Step One -

Place your cake on a butter paper, top down and keep it on the cake board. (The butter paper can be removed later so that the cake board remains clean)



Step Two -

By placing the cake top down, you'll have a flatter surface to work with. Moisten the cake with any fruit syrup or mixture of jam and water.



Step Three -

Take the frosting and put it in the middle of the bottom cake layer. Use a spatula made especially for frosting cakes. Be sure to push the spatula through the icing. To avoid cake crumbs, always push the icing from the middle outwards. Then lift the spatula and begin again in the middle, going out in each direction. When it's time to evenly spread the frosting, keep the spatula on the frosting. Don't let it touch the unfrosted cake unless there's plenty of icing on the spatula.



Step Four -

Carefully, add the second cake layer top side up. The frosting using the same technique as mentioned above.



Step Five -

Frost the sides of cake. Use the last of the icing on the sides of the cake. Smoothen out the frosting evenly on all sides using the palette knife.

Step Six - Decorate the top of the cake with edible flowers, gems, sprinkles, chocolate swirls and other edible decoration.

Step Seven- Keep the cake in the refrigerator.

Lesson - 13

Recipes - Baking

1. SUGAR COOKIES

Ingredients

- 1 cup butter, room temperature
- 1 cup white sugar
- 1 egg
- 1 teaspoon vanilla extract
- 2 $\frac{3}{4}$ cups plain flour
- 2 teaspoons baking powder

Method

1. Preheat the oven to 350 degrees
2. Mix the dry ingredients. Place the flour, salt and baking soda in a bowl. Whisk until they are fully combined.
3. Cream the wet ingredients in a separate bowl. Place the butter, sugar, egg, and vanilla in a bowl and beat the ingredients are incorporated, and the mixture is light and fluffy.
4. Mix the wet and dry ingredients. Pour the flour mixture into the bowl of wet ingredients. Use a long-handled spoon to stir the batter until you can no longer see the specks of white flour.
5. Use a spoon or a small ice cream scoop to place even amounts of cookie dough onto the baking sheet. Space them an inch or two apart to allow the cookies room to spread.
6. Use the bottom of a drinking glass to press the cookies flat.
7. Sprinkle the cookies with sugar. This will give the cookies a sweet, crunchy finish.



8. Place the baking sheet in the oven and bake the cookies for 15 minutes, or until the tops turn slightly golden.
9. Remove them from the oven and place them on a cooling rack or a plate. Let them cool for a minute or two before eating.
10. Sugar cookies are fun to decorate with glaze or icing. Add sprinkles or edible glitter to make them look festive.

CAKE WITH ICING : BLACK FOREST CAKE

Ingredients

- 1 cup all purpose flour
- 1/2 cup sugar
- 1/4 cup butter
- 225 gm whipped cream
- 1/4 cup sugar
- 2 tablespoon cherry juice
- 1/2 cup cocoa powder
- 1 teaspoon baking powder
- 2 eggs
- 200 gm cooking chocolate
- 1/4 cup water
- 1 cup cherry jam



Method

Step 1- Sift together flour, baking powder and cocoa.

Step 2 - In a bowl, beat the butter and sugar till creamy. Add eggs and beat till frothy. Fold in the dry ingredients.

Step 3 - Beat well for a minute. This measurement is for 1 chocolate cake. We will need 2 cakes like this. So repeat this process for the 2nd cake.

Step 4 - Pour each separately prepared batter into separate greased pans. Bake both cakes in a 350 degree pre-heated oven for 30-35 mins. Remove the baked cakes from the oven and cool them on a cooling rack.

Step 5 - Meanwhile, prepare a sugar syrup with 1/2 cup sugar and 1/4 cup water. When the sugar syrup is ready, let it cool and add cherry juice.

Step 6 - Process 3-4 tbsp of cherry jam in a food processor till filling it slightly crushed. Save the rest of the cherry jam as filling for later.

Step 7 - Now, to assemble the cake, place the 1st layer of the chocolate cake on a platter. Drizzle with the cherry flavored sugar syrup till the cake is moist.

Step 8 - Spread with one layer of whipped cream. Top with the processed cherry jam filling.

Step 9 - Now place the 2nd layer of the cake. Spoon whipped cream onto the top layer and frost the cake using a spatula.

Step 10 - After the whole cake has been frosted with the whipped topping, spoon some cherry jam onto the middle of the top cake layer.

Step 11 - Now decorate around the cherry filling using a piping bag filled with whipped topping fitted with a star shaped nozzle.

Step 12 - Grate the chocolate bar to get chocolate shavings. Sprinkle this on the sides of the cake.

Step 13 - Decorate the lower part of the cake with the star nozzle piping bag. Refrigerate till you are ready to cut it. Enjoy!

PINEAPPLE CREAM CAKE

Ingredients

1 yellow cake mix
1/2 cup butter (1 stick), room temperature
11 ounce can mandarin oranges
1/2 cup oil (vegetable or canola oil)
4 large eggs



For the Frosting

3.4 ounce box vanilla instant pudding
20 ounce can crushed pineapple
1/2 cup powdered sugar
1 heaping cup shredded sweetened coconut
1 1/4 cups heavy whipping cream

Method

Preheat oven to 350 degrees F.

Combine the cake mix, butter, the whole can of mandarin oranges (juice and all), oil, eggs, and mix well.

Pour into a greased 9x13" pan and bake for 22-27 minutes or until a toothpick inserted comes out clean.

Mix the dry pudding packet and the whole can of crushed pineapple together. Refrigerate while you do the next steps.

In a large mixing bowl beat the heavy cream until peaks start to form. Add the powdered sugar and beat well.

Fold in the coconut and the pineapple/pudding mixture.

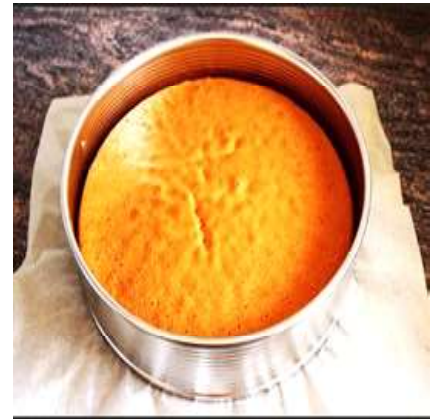
Spread frosting over cooled cake and refrigerate until ready to serve. (I garnished the top of my cake with some toasted coconut.)

CAKE WITHOUT ICING : SPONGE CAKE

1. Sponge cake

Ingredients

- 6 eggs (medium – large)
- 250 g caster sugar
- 250 g plain flour
- 100 ml Warm Water
- 100 ml vegetable oil/sunflower oil
- 12 g baking powder



Method

1. Preheat the oven to 185 degree C/365 degree F
2. Separate the eggs. Place the egg whites and egg yolks in 2 bowls. Use the larger bowl for the egg yolks.
3. Beat the egg whites until stiff & set aside.
4. Add castor sugar to egg yolks and mix until nice and pale.
5. Sift in the flour (mixed with baking powder), add oil & water, & mix until all ingredients are well blended and the batter is smooth.
6. Now fold in the egg whites.
7. Pour the mixture into a cake tin lined with baking parchment (grease the sides of the tin as well).
8. Bake at 185 degrees C/365 degrees F for 30-35 minutes or until baked throughout. Check with a fork to see if it's ready.

2. Eggless Vanilla Sponge Cake

Preparation Time: 10 mins | Cooking Time: 50 mins

Ingredients

Maida – 1 and 1/2 cups (200 gms)

Plain yogurt (curd) – 1 cup (250 ml)

Granulated Sugar – 3/4 cup (165 gms)

Baking soda – 1/2 tsp

Baking powder – 1 and 1/4 tsp

Cooking oil – 1/2 cup (125 ml)

Vanilla essence – 1 and 1/2 tsp

Milk – 1 tbsp (just for brushing the top)

Method

1. Sieve maida twice and keep aside.
2. Whisk cream, sugar and curd until sugar completely dissolves. Add baking powder, baking soda to the creamed mixture, and mix well.



3. Leave aside for 5 minutes, and you can see the bubbles appearing.
4. Now add vanilla essence and cooking oil, and mix well.



5. Next, slowly add maida in portions at a time, and blend with wet ingredients.
6. Beat well with a whisk until creamy and thick.
7. Preheat oven to 200 degrees C for 10 minutes.
5. Next, slowly add maida in portions at a time, and blend with wet ingredients.
6. Beat well with a whisk until creamy and thick.
7. Preheat oven to 200 degrees C for 10 minutes.
8. Meanwhile, grease a butter paper, lay it in the cake tin or loaf pan, pour the batter into the tin, and keep it ready.



9. Bake in preheated oven at 200 degree C for 10 minutes then reduce the temperature to 180 degrees C and bake it for 30-35 mins or till a fork inserted into the centre of the cake comes out clean.
10. Just brush the top of the cake with 1 tbsp milk, 10minutes before the ending time, to get a nice polishing glaze.
11. Allow the cake to cool down for 10 minutes, then invert and remove the butter paper. Then cut/slice it into pieces and enjoy!

LIGHT FRUIT CAKE

Ingredients

- 3/4 cup (120 grams) candied mixed peel
- 1/2 cup (100 grams) candied red or green cherries (cut into

- 1/2 cup (100 grams) candied red or green cherries (cut into quarters)
- 1/3 cup (40 grams) dark raisins
- 2-3 tablespoons Grand Marnier, rum, brandy or sherry (optional)
- 1/2 cup (113 grams) unsalted butter, room temperature
- 1/2 cup (100 grams) granulated white sugar
- 3 large eggs, room temperature
- 1/2 teaspoon pure vanilla extract
- 1/4 teaspoon pure almond extract

Method

If desired, in a bowl, combine the candied mixed peel, cherries, and dark raisins. Stir in the alcohol, cover, and let sit room temperature at least a day (up to two days). Stir occasionally.

When ready to make the cake batter, preheat oven to 350 degrees F (180 degrees C), with the oven rack in the centre of the oven. Butter or spray with a nonstick vegetable spray, a 9 x 5 x 3 inch (23 x 13 x 8 cm) loaf pan.

In a separate bowl, whisk together the flour, ground almonds, baking powder, salt, and lemon zest.

In the bowl of your electric mixer, or with a hand mixer, beat the butter and sugar until light and fluffy. Add the eggs, one at a time, beating well after each addition. Scrape down the sides of the bowl as needed. Beat in the extracts. Add the candied and dried fruits, along with any juices, and beat until incorporated. Beat in half the flour mixture just until incorporated. Then beat in the milk and the remaining flour mixture.

Scrape the batter into the prepared pan and, if desired, decorate the top of the cake with sliced or flaked almonds. Bake for about

60 - 70 minutes or until a toothpick inserted into the centre comes out clean. (If you find the cake is browning too much, cover with a piece of aluminum foil.) Remove from oven and let cool on a wire rack for about 10 minutes before removing from pan. The cake does benefit from being stored a day or two before serving, as this softens the outer crust and allows the flavours to mingle. You can cover and store this cake for about a week at room temperature, or it can be frozen.

EXERCISE :

1. Name the following:

- a) Flavouring agent _____
- b) Types of icing _____
- d) Types of sugar _____
- e) Cakes with icing _____

2. Find the odd one out :

- a) oil, butter, flour, ghee, margarine
- b) almonds, fig, apricot, walnuts, tomato
- c) milk, cinnamon, cardamom, nutmeg, clove
- d) paneer, cheese, cream, rabdi, jalebi

3. Write the recipe to make cake.

4. What can be used to decorate a cake?

5. What care will you take before putting the cake into the oven?

6. Write the uses of the following.

Baking pan :

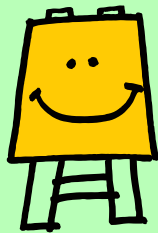
Piping bag :

Weighing scale :

7. What should be done to avoid wastage of ingredients while cooking any food?

Activity

Decorate a small cake using butter icing and write 'HAPPY BIRTHDAY' ON TOP.



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