Home Science

Class Seven









National Curriculum and Textbook Board, Bangladesh

Prescribed by the National Curriculum and Textbook Board
as a textbook for Class Seven from the academic year 2013

Home Science

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Revised for the year 2026

National Curriculum and Textbook Board, Bangladesh

Published by

National Curriculum and Textbook Board

69-70, Motijheel Commercial Area, Dhaka

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First Publication : December 2012
Revised Edition : November 2014
Revised Edition : October 2024
Revised Edition : October 2025

For free distribution by the Government of the People's Republic of Bangladesh

Printed by :

Preface

The importance of formal education is diversified. The prime goal of modern education is not to impart knowledge only but to build a prosperous nation by developing skilled human resources. At the same time, education is the best means of developing a society free from superstitions and adheres to science and facts. To stand as a developed nation in the science and technology-driven world of the 21st century, we need to ensure quality education. A well-planned education is essential for enabling our new generation to face the challenges of the age and to motivate them with the strength of patriotism, values, and ethics. In this context, the government is determined to ensure education as per the demand of the age.

Education is the backbone of a nation and a curriculum provides the essence of formal education. Again, the most important tool for implementing a curriculum is the textbook. The National Curriculum 2012 has been adopted to achieve the goals of the National Education Policy 2010. In light of this, the National Curriculum and Textbook Board (NCTB) has been persistently working on developing, printing, and distributing quality textbooks. This organization also reviews and revises the curriculum, textbook, and assessment methods according to needs and realities.

Secondary education is a vital stage in our education system. This textbook is catered to the age, aptitude, and endless inquisitiveness of the students at this level, as well as to achieve the aims and objectives of the curriculum. It is believed that the book written and meticulously edited by experienced and skilled teachers and experts will be conducive to a joyful experience for the students. It is hoped that the book will play a significant role in promoting creative and aesthetic spirits among students along with subject knowledge and skills.

Home Science is a life-oriented and career-oriented education. The skill-based knowledge acquired in this subject will enhance students' adaptability. Also, this experience will make students skilled in using limited resources to achieve desired goals, manage many unexpected events at home and outside, and overcome problems that arise in the home environment. The Home Science Textbook for grade VII students has been developed considering these issues and keeping in mind the needs of the times.

It may be mentioned here that due to the changing situation in 2024 and as per the needs the textbook has been reviewed and revised for the academic year 2026. It is mentionable here that the last version of the textbook developed according to the curriculum 2012 has been taken as the basis. Meticulous attention has been paid to the textbook to make it more learner-friendly and error-free. However, any suggestions for further improvement of this book will be appreciated.

Finally, I would like to thank all of those who have contributed to the book as writers, editors, reviewers, illustrators and graphic designers.

October 2025

Professor Robiul Kabir Chowdhury
Chairman (Additional Charge)
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Section – A
Home Management and Household Resources

Home management is the combination of several successive steps. The sequence of these steps is to be maintained in all activities at home. In order to achieve a goal, it is essential to use all kinds of resources properly. Proper utilization of money, energy and time can be accomplished if you know the techniques of simplifying the work and can apply these techniques. It is possible to purchase a genuine and accurate thing if you know the way of purchasing household materials and are aware of the consumer rights as a consumer. Besides, the home can be made attractive and beautiful by having knowledge about the principles and elements of arts and their application to decorate home properly.





After studying this section we will be able –

- To explain the steps of home management;
- To classify the household resources and make the list of resources;
- To apply the techniques of simplifying the household works;
- To explain the techniques of purchasing the household things/ materials, and to explain the respective rights as a consumer;
- To explain the importance of principles and elements of art to make the home attractive and pleasant.

Chapter One

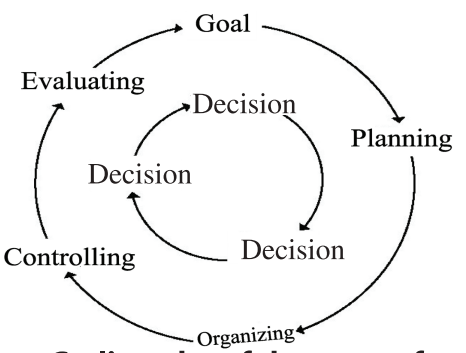
Steps of Home Management and Household Resources

Lesson 1 – Steps of Home Management

There are different types of goals or aims in our life. For achieving these goals, we perform different kinds of works. To do these activities we use various types of resources. We have resource constraints according to our needs. So, in order to achieve the goals, by using the limited resources, we have to take proper and right decision. In order to achieve these goals, we need to make a plan to use our resources, such as, organizing, controlling and evaluating. In a word, this is called home management. From this definition it can be understood that home management is a combination of some activities for achieving the family goals. Again, this process consists of some consecutive steps. The steps of home management move in a cyclic order centring the goal.

Planning

The first step of home management is *planning*. It means, in order to accomplish a task, one has to think about the reasons and the way of doing it. Next activities are done following a plan. For this, *planning* is considered as the base of any action. In other words, *planning* is the prior preparation of future activities to achieve a goal. While making a plan, we have to remember what to do, why to do, who will do, when and how to do etc. to achieve the goals. It is easy to make a plan if there is a good relationship among the members of the family. In this case, comfort and problems/troubles



Cyclic order of the steps of home management

of all family members must be considered to make a plan. A plan should be simple and easy so that everyone can understand. If necessary there should be an option to change the plan. Special importance should be given to make the plan realistic and to make it execute through the concerted efforts of all.

Organizing

Organizing is to co-ordinate different actions of a plan. In this second stage of home management, it is decided how to do well, where and who will do, which activities will be done by whom and which resources will be used. In a word, *organizing* is to bring agreement and adjustment among work, workers and resources. There will be a good result if there are motivation, encouragement, skill and attention towards an action. The desired goal can be achieved by organizing a plan. In this stage, the activities that are planned must be decided logically. So it can be said that the main objective of *organizing* is to determine logical steps to complete an action successfully.

Controlling

Controlling means to put a plan into action and make the *organizing* stage effective. This third step of management is very important. In spite of having creative ideas and a good plan, it is difficult to achieve the goals if there is no implementation of the plan. *Controlling* is to carry out the plan into action. This stage moves forward with several phases. The first phase is to become active. It means initiating an action. It is easy to initiate an action if we know what to do and how to do. In the second phase of *controlling* the progress of the activities is checked. There should be a monitoring of the progress of an action to ensure that it is being done within the allocated time. The third phase is to adjust the with the situation. If any problem arises, it may be necessary to change the plan and take a new decision to complete the task successfully and this is called adjustment.

Evaluation

The final stage of home management is *evaluation*. Evaluation is to assess the

result of the activities after they are being done. Through an evaluation, it can be assessed whether the process of action could achieve the goal or not. Without evaluation it is not possible to determine the success or failure of activities. There will be success with the achievement of goals. The way of achieving this success will be considered as the guidelines of future plans. Similarly if anyone fails to achieve the goals, the modification can be done after identifying the causes of failure. It becomes easy to achieve the goals through rectifying and changing the plans and activities in future.

Home management consists of some consecutive steps which are interdependent and interrelated. Again, it is essential to take decision at each step. So the decision making is shown as the main point in the framework of home management.

Task 1- What will you do to arrange a class party following the steps of home management?

Lesson 2 – Household resources

Concept of resource –We all know that the house, land property, money, furniture, equipment etc. are resources. These are used for our different needs. From the definition of home management, we have learnt that different kinds of resources are used for achieving the family goals. We have to do many activities to achieve our goals. And to accomplish these activities, we have to depend on some kinds of goods and services. These goods and services are resources. Different kinds of needs can be fulfilled by using the resources. Thus, resources are the tools to fulfill the needs.

Now think about Maisha who wants to be a doctor in future. She goes to school regularly and studies attentively. She tries to gain knowledge by reading many

other books besides the textbooks. The result of her examination is always good. The teachers and guardians hope that Maisha will be able to achieve her goals.

The factors that are working behind Maisha's struggle for achieving goal–her talent, punctuality, intelligence and diligence. These are her own qualities which are a kind of resource of her. The money that her family spends and the facilities that her family provides to arrange her education are also resources. So, it is necessary to use different kinds of resources to achieve any goals. Our houses, properties, money, furniture and other equipments etc. are considered as resources to fulfill our needs. Similarly, our different qualities such as – knowledge, abilities, intelligence, energy etc. are also considered as resources to reach our goals.

Some basic characteristics of resources

1. **Utility of resources -** All resources have more or less utilities. It means, all resources have the ability to meet the needs. But utilities can be different for different kinds of resources. For example- with the resource like money we can purchase many necessary things.

2. **Resource constraints -** One basic characteristic of resources is that all resources are limited. For example, a person or a family may have limited income and limited land.

3. **Inter-relation of the use of resources -** Different resources are used together to achieve a specific goal. For example - in most cases money, time and energy are needed together to accomplish an action. It is possible to achieve a goal through a combined use of all resources.

4. **All Resources have the ownership -** The owner mast have the ownership of the resources. If a owner lose the ownership or fail to use the resources, it cannot be owner's resources anymore.

Ownership of money, house, land property, all the furniture at home, equipment etc. is transferrable. But the ownership of one's intelligence, energy, capability, skills, time etc. cannot be transferred as these are the qualities of a human being.

There are some resources that require practice to enhance. For example – knowledge, health, skill, energy etc.

Money and property can be increased by different kinds of income generating activities.

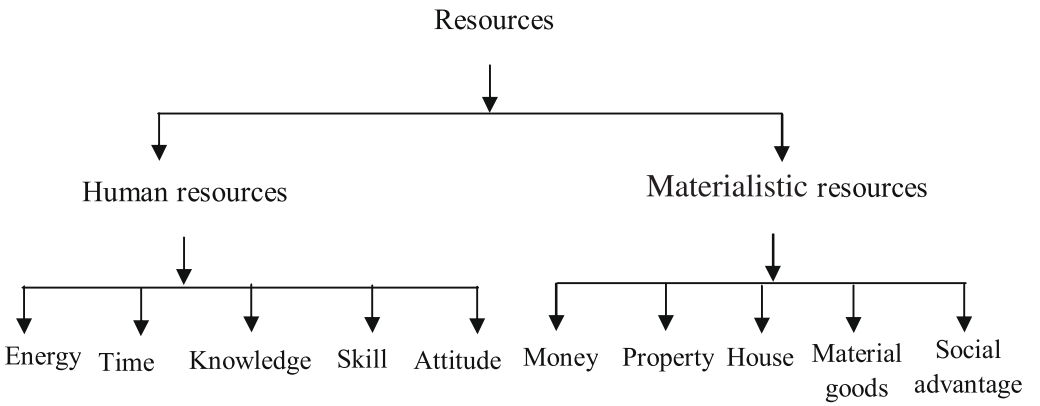
Task 1- Mention one of your goals and make a list of resources that you will use to achieve the goal.

Task 2- According to the characteristics of resources identify the resources of your family.

Lesson 3 – Classification of resources

Resources are the tools to meet the various demands of a human being. A person becomes the owner of resources through different ways. Every person has some kinds of resources. However, many people are ignorant about the types and quantity of the resources that they have. As a result, they cannot use these resources to achieve the goals. In the case of home management, things that we use to achieve our goals is known as resource. We can learn about all kinds of resources through classifying them and thus we can make proper use of them to achieve our goals.

From the home management point of view, resources are two types.



Human resources

There is more than one member in a family. The members of a family have many qualities of their own. Their qualities, e.g., knowledge, skill, energy, interest, attitude etc., are considered as human resources. It is not possible to see or touch the qualities of human being like material resources. These are the internal qualities of a person. The members of a family can achieve the goals by using these human resources. We can make development of ourselves as well as of our families through proper utilization of these human resources.

Farhan is a brilliant student. He usually helps his mother in cleaning and making necessary arrangement at home. Sometimes he helps his mother in the preparation of cooking. This attitude and interest of Farhan to help his mother can be considered undoubtedly as a human resource of a family. Human resources are related to and dependent on each other. A person may have knowledge about and competency to do a certain work/activity. However, the activity will not be accomplished properly if the person lacks the attitude or interest in doing that.

Materialistic resources

House, property (land), money, household equipment and furniture - all these are considered as the material or non-human resources. We do many works by using these resources which help us to achieve our goals. Among all material

resources, money is the most valuable and effective resource. In exchange of money, we can collect other material resources.

In order to achieve the family goals, both human and material resources are used. However, we should be careful in using these resources properly. Otherwise, it will be a waste of resources. Again, we will not also be able to achieve the desired goals. We can get maximum satisfaction out of limited resources through proper planning.

Examples of human and materialistic resources

Human resources			Materialistic resources
Name of the Resources	**Examples**	**Name of the Resources**	**Examples**
Time	Proper utilization of time means proper use of time.	Money	Salary, wages, savings, investment, business etc.
Knowledge	To know the right information about any subject.	Material or goods	Car, household furniture, equipments, clothes etc.
Energy	Energy to walk, move or work	Social facilities	School, college, *madrasa*, library, park, hospital, roads, market etc.
Skill	Skilled in any special subject / doing any work.		
Attitude	Willingness to adapt to the people, environment, situation etc. and to co-operate with others	Space	House, land property etc.

Task 1- Identify your own human resources. How are those resources helping you to achieve the goals?

Task 2- Make a list of all materialistic resources of your family.

Lesson 4 – Money, Time, Energy

Money, time and energy- these three are considered as the principal family resources. Every family has some of these resources in different forms. We can achieve different kinds of goals by using these resources. According to the general characteristics of resources, each resource is limited. It is possible to achieve the family goals through the proper use of these limited resources.

Money – Money is one of the main resources of a family. Money is essential to fulfill the basic needs of human life. Every family earns money by some means. A family earns money through job, business, investing money in a business or through any other occupations. Money is more effective than any other material resources as it has purchasing power. We receive goods and services in exchange of money. We bear our expenditure with this money.

Functions that money performs

1. **Mode of exchange –** Money is a mode of exchanging things. Goods and services are received in exchange of money.
2. **Determinant of value –** We can know the prices of goods and services in terms of money.
3. **Standard of credit repayment –** Repayment of credit is done by money.
4. **Store of savings –** We can save money for future.

   Even our needs can be fulfilled with limited money if we use money properly in family life. We must spend money with a proper plan. A budget is a future plan for spending money. All must make a habit of spending money by making a budget. Thus, we will be able to fulfill our essential demands in a proper way. It will prevent us from spending money without reasons. In this way, we will learn to become economical and frugal.

Time –Time is one of the important human resources. Time runs according to the rule of nature. We become the owner of this resource since our birth. Time is a limited resource and it is easy to measure this resource. No one can have

more than 24 hours in a day. We cannot save time for using it in future. Therefore, everyone is to work in time. It should not be wasted without reasons. If we do our work making a proper planning of time, we can complete our work properly and we can achieve our desired goals.

Everyday Rupam gets up from sleep at 6 in the morning. He studies from 7 a.m. to 9 a.m. He stays at school from 11 a.m. to 4 p.m. He goes to the playground in the afternoon when he comes back from the school. He studies from 8 p.m. to 10 p.m. and goes to sleep at 11 p.m. Rupam does his daily works and takes rest in time. Like Rupam, we can also do our daily works according to a time table. It will save our valuable time from being wasted. By following a timetable, we will be able to do our works in time, and thus reach our goals.

Energy – Energy is a human resource. We accomplish a work by using our energy and achieve our goal. A person earns this resource and everyone is not energetic in a same way. However, one is able to do a lot of work with his energy while other cannot do the same and becomes tired quickly. Like other resources, we need to be careful in using energy too. We should use minimum energy in doing any kind of work. We need to work a lot by using less energy. Energy is also a limited resource like other resources. This is why a work list will help to utilize this energy.

Nilu is a student of class seven. She lives in a village. She wakes up early in the morning and fetches water from a distant area. After this, she sweeps the rooms and courtyard and cleans the kitchen. Then she takes bath in a pond, washes her clothes and goes to school. Everyday in her classroom she feels drowsy. As a result, in the classroom, she cannot give proper attention to her studies.

Nilu has lost her energy as a result of doing hard work one after another. As a result, she has become tired. Therefore, we should know the ways of using energy to avoid the situation like Nilu.

The ways of using energy are as follows:

- There will be a schedule for daily work.
- We should arrange the activities according to the priority.

- A light or easy work must be done after a heavy or hard work.
- There should be a provision for taking rest, sleep and entertainment.
- The age, skills and ability of a person should be considered in doing a work.

Task 1- Make a timetable and a schedule of work in a holiday.

Task 2- Write how you will save from your pocket money?

Lesson 5 – Techniques of simplifying a work

We have already learnt that both time and energy are limited resources. Time is absolutely limited which is equal for all.

Much work can be accomplished if we use time and energy in a proper way.

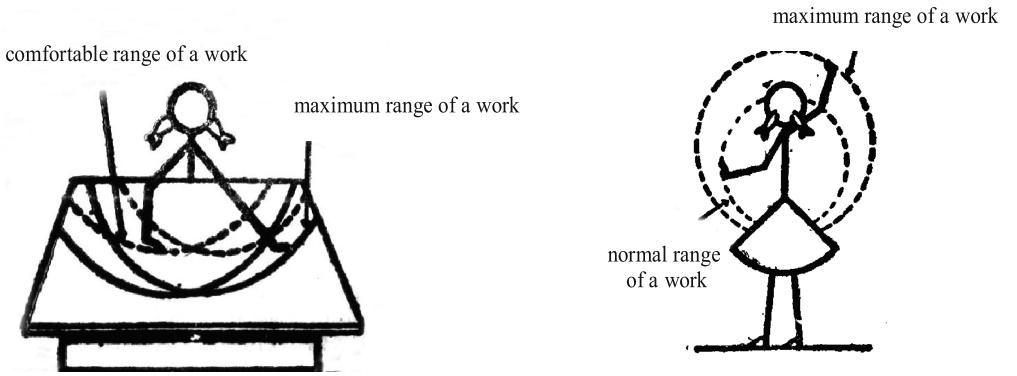
Simplification of work means

- To spend less time and energy for a certain work.
- To do maximum work spending a certain amount of time and energy.

A work becomes easier and a good utilization of time and energy will be ensured if we can adopt various techniques of simplifying the work. Experts of Home Science have mentioned five changes as the techniques of work simplification. These are described below:

1. Change of postures and motion

We can do maximum work spending less energy if we maintain the proper position and posture of our body. The work can be done easily if you have the conception about the maximum and normal range of doing any work. Keeping this in mind, the essential equipment should be kept ready within the reach of our hands. We should move our hands from up to down while cutting anything and it will make the task easier.



Less energy is used in working within a normal range

2. Change of work place and equipment - Changing of arrangement and equipment of a workplace simplifies the task. There is a certain place to do a work. Time and energy can be saved if the work is done in its right place. For example, time and energy will be spent less if a dining room is placed beside the kitchen or the dining space is arranged in one side of a kitchen. All equipment will be reachable if these are arranged or kept in a proper place. A sitting place, chair and table kept in proper height create a comfortable work environment. Electric iron, filter, pressure cooker etc. help in saving time as well as energy.



Working in right height is comfortable

3. Change of the different stages of a production - A work can be done easily by bringing a change in different phases or stages of a production. For example-

at the time of cleaning a house we should not wash and clean each and every room separately. Rather there should be a continuation of the process in sweeping, dusting and mopping up floor etc. for every room one after another. I will help to save time and energy. Similarly, while cooking ice a smart home maker can also do some other tasks at the same time.

4. Change of products -We can make a task simple by making a change in some products. For instance, generally we chop the cucumber into fine pieces for salad. But if we chop them into small pieces, it will save time and energy. We can buy sliced fish, meat and bread from shops.

5. Change of materials or ingredients - Nowadays, alternative materials are used to make household chores simple. For example, disposable plate, glass, cup etc. are used in many programs of an urban place. In rural areas leaves of banana plant are used as disposable plates. These can be thrown away after using them for once. Thus, it saves time and energy as we do not need to wash and clean them. Thus, we can make the daily household chores simple by following some techniques. It is possible to do much work within a shorter time using less energy if we choose a good way of doing any work.

Task 1-Make a chart showing the different techniques of simplifying the daily household chores of your family.

Task 2- Describe the techniques that you apply to keep your room tidy and well arranged.

Exercise

Multiple Chpice Questions

1. Which factor is the center of home management?

a. organizing
b. goal
c. controlling
d. planning

2. Which stage comes after the stage of *'controlling'* if the stages of home management are arranged in a cyclic order ?

a. organizing b. planning

c. evaluation d. decision

Read the following stem and answer to the question number 3 and 4

Monira Begum is a very careful home maker. Before going for a shopping she always makes a list of the necessary things that her family members need. She also thinks about the maximum amount of money that will be needed in fulfilling everyone's need.

3. What is the name of the process that Monira Begum follows?

a. work list b. budget

c. menu planning d. list of goods

4. What will be the consequence of the habit of Monira Begum's ? It will-

i. reduce misuse of money.

ii. meet the necessary demands.

iii. make the habit of saving.

Which one of the following is correct?

a. i and ii b. i and iii

c. ii and iii d. i, ii and iii

Creative Questions

1. Rahima Banu lives in a village. She tries to fulfill the needs of her family with her limited income prioritizing the needs. As the tube-well is far from her kitchen she stores water in a bucket. She arranges the essential equipment for cooking and keeps them on a shelf made of clay. As a result, she can take her children to school on time after finishing her cooking.

a. What is resource?

b. What is limitation of resources?

c. Which technique does Rahima Banu apply as a preparation for cooking? Explain how does it help her to make the work simple.

d. 'Rahima Banu uses family resources properly.'- justify this statement.

2. Mafuza of Rasulpur village dreams to become a successful woman entrepreneur. For achieving this goal she uses her training skill to make different kinds of handicrafts, such as, Nakshi kantha, bed cover etc. and sells these articles. Noticing Mahfuza's skill of work, a woman organization of her area gives her loan. Mafuza gives training to ten women on this subject and also has established an organization named "Shelie ghar". Mahfuza is now famous for her work in Rasulpur and the other places near Rasulpur.

a. What is home management?

b. 'Human resources are related to each other.'– explain.

c. Explain the kind of resource which influences much on Mafuza.

d. 'Mafuza has been able to achieve goals by combining two kinds of resources.'– do you agree with this statement? Give reasons for your answer.

Short-Answer Questions

1. What are household resources?
2. What does "organization" mean?
3. How can the wastage of energy be preventd?
4. Explain the importance of planning in home management.

Chapter Two

Buying Household Appliances

Lesson 1 - Principles of buying household appliances

The appliances, tools and other materials that are used to accomplish different kinds of activities in a family are considered as household appliances. These appliances make our activities more easy and comfortable. We can save time and energy in doing any work by selecting and using household appliances properly. Different kinds of appliances are used for different activities. For example:

- Utensils and other appliances for cooking – pot, pan, saucepan, fry-pan, stove, peeler, chopper, knife, kettle, blender, pressure cooker etc.
- Food serving appliances - plate, bowl, glass, jug, spoon, fork, cup, mug, saucer, tray, trolley etc.
- Washing and cleaning appliances – clothes for mopping, brush, bucket, duster, broom, etc.
- Laundry appliances - soap bucket, mug, wooden piece, clip, hanger, iron, washing machine etc.
- Sewing appliances – needle, thread, tape, scissors, sewing machine etc.
- Gardening appliances– spade, weeding tool, crowbar, sprayer, mug, sickle etc.
- Study appliances – book, paper, pen, pencil, geometrical box, calculator etc.
- Other appliances – first aid box, hammer, saw, screw driver, tester, toys etc.

Principles of buying home appliances – Several factors need to be considered for purchasing home appliances. Without having knowledge about these factors, it is not possible to buy a right appliance. In exchange of money, these appliances are purchased. This is why while purchasing any appliance we should be careful

that money is not being wasted. Thus, we need to follow some principles in purchasing or buying household appliances-

- Making a list of essential appliances
- Making a plan for buying appliances
- Judging the quality of an appliance
- Having an idea about the market price

Making a list of essential appliances – All essential appliances may not be bought together at a time as our money is limited. We need to make a list of the necessary things and set priority. For example – it is expected to buy a water jug first when a family needs to buy both a water jug and a flower vase. Demands will be fulfilled properly if we buy the appliances prioritizing our needs.

Plan for buying appliances –All demands are not fulfilled if the household appliances are bought without making a plan. This is why we must make a plan. While making a plan to buy anything, we need to consider – when to buy it, from where to buy, why to buy and if there is ability of a family to buy it. For example – if there is ability, a large family in an urban area should buy a stove with two or more burners. It will help to cook more within a shorter time. On the other hand, fuel used for a stove made of clay is more available and cheaper than that of a gas stove in a village.

Examining the quality of an appliance –It is helpful to achieve the goals if the qualities of an appliance or an item are examined while purchasing them. In order to examine the quality of an appliance we should consider the followings

1. Selecting an appliance or item that will save time and energy. It is not convenient to handle a heavy and large thing. Rather it is more suitable to handle a thing which is light in weight and small in size which requires less time and energy.
2. Things should be purchased considering their price and utility. Sometimes things made of local and cheap raw materials are better in quality and more standard than those of glittering imported ones.

3. Household appliances are made of different kinds of metals considering the nature of works. Before buying any appliance, we should know the characteristic of the metal usage, the way of its taking care and preservation of the appliance. It is better to use utensils made of aluminum. Frying pans should be made of iron. On the other hand, plates, glasses, cups etc. made of glass are preferred. However, we need to be more careful in using them.

4. Before buying a necessary appliance, it is needed to determine the durability of that item. The durability depends mainly on the qualities of the metal and the design of the appliance. For example, handles of a kettle and frying pan are made of wood or plastic. This is why before buying a kettle and a frying pan, we should check if the handles are attached firmly with them.

Idea about market price:

Price of a single thing should be checked in different places of a market and finally bought with a cheaper price. Thus, it will save money of a buyer.

Task 1- Make a list of the appliances you need for your study of a year.

Task 2- Write the advantages of examining things while buying them.

Lesson 2- Rights of a Consumer

You are a buyer when you buy anything. If you consume that thing, you are both a buyer and a consumer. We buy the things from a seller to meet our needs. Often it is seen that the buyers or consumers are being cheated and harassed by the sellers. Not only the sellers but also the producers are cheating us providing the inferior quality goods.

We as consumers buy goods and services in order to

- get maximum satisfaction
- get monetary profit.

- become an efficient buyer and consumer.

On the other hand, the sellers and the producers in our country usually cheat us in many ways in order to get more profit. For example :

- Selling the products with high price
- Selling impure and adulterant products
- Publishing fraudulent advertisements
- Improper weight and measurement of the goods

We should be aware of the rights of a consumer and careful from being cheated by the sellers or producers in any condition. It is important to know the consumer rights in order to maximize our satisfaction with a proper utilization of money. There are seven basic rights of consumers throughout the world. These are described below -

Right of safety – There should be strict rules against the selling and producing of hazardous goods and services that are harmful for health and lives of consumers. There should be some laws and a strict implication of these laws as well to protect the consumers from adulterated food and medicine.

Right of information –The consumer has the right to know what product he or she is buying, price of the product, quality of the product, usage, ingredients, expiration of the product etc. Consumers will be able to know these information if they are written on the label of the products. As a result, there will be less chance of being cheated.

Right for complaint – The consumer must have the right to complain to the salesman and producer against the defects of the product. The concerned producing organization should try to improve the standard of products considering the complaints of consumers.

Right to get compensation – The sellers are bound to compensate if any product causes harm to the consumers. This is one of the chief rights of the consumers. Nowadays many salesperson do not want to give the money receipt to the buyers or consumers. However, the consumer should collect the money receipt from the seller so that he or she can demand a compensation if cheated.

Right to choose – The consumer has the right to choose a good product from many alternatives that gives satisfaction. The consumer will have the opportunity to select the right product for him or her by touching it and checking the quality of it.

Right to get a healthy environment - Every consumer has the right to get a clean and healthy atmosphere. The environment of market and shop should be clean so that the consumer can move around with comfort. There should be an adequate and proper arrangements for the consumers to get a clean environment, free from pollution and crowd.

Right to get consumer education – Consumer must be given the right to get the knowledge and skills to choose the proper and right product. In many developed countries, there are many organizations working for consumer education. The cheating and fraudulent activities of salesman and producers can be disclosed to the general people through television, newspaper, radio etc. The standard controlling organizations can make a comparative study of the quality and standard of goods. Then they let the consumers know about their findings of the products. Then the consumer will be able to know about the merits and demerits of the products. Thus, we as consumers, can be united together to get and establish our rights having the consumer education.

Task 1- Make a poster describing the consumer rights.

Exercise

Multiple Choice Questions

1. Which one is a cooking appliance?

a. cooking spud
b. plate
b. glass
d. bowl

2. Which one is important while buying appliances?

a. ability
b. planning
c. demand
d. utility

Read the following stem and answer to the question number 3 and 4

Chameli Begum went to a big shop first to buy a dinner set. Then she moved around a few more shops and finally bought the same thing from a shop with cheaper price.

3. Which factor did Chameli Begum consider for purchasing a dinner set?

a. market price
b. properties of metal
c. selection of goods
d. durability

4. What benefit did Chameli Begum get by following the way mentioned in the stem?

i. money could be saved
ii. it was possible to buy many items
iii. less use of time and energy

Which one of the following is correct?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii and iii

Creative Questions

Mrs. Mubina bought an iron from the electronics shop without having a money receipt. On the way of returning home she bought a packet of juice for her daughter. While opening the packet her daughter noticed that the expiry date of the juice was over. On the other hand, inspite of much efforts Mrs. Mubina could not operate the iron. Then she went to the shop with complaint. But the shop owner did not admit that the iron was bought from his shop.

a. How many rights are there to save consumers' interest?
b. Explain the necessity of planning before buying household appliances.
c. Which right was not applied by Mrs. Mubina while buying the juice- explain.
d. 'The buyers like Mrs. Mubina are not aware of their rights as consumers.' explain this statement.

Short-Answer Questions

1. What are household appliances?
2. What is purchase planning?
3. When can a buyer ask for compensation from a seller?
4. What are the consumer rights?

Chapter Three

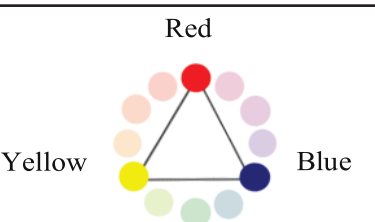
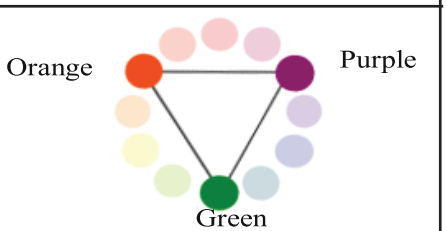
Principles of Making Home Beautiful and Attractive

Making home beautiful and attractive is a part of art. Art is a kind of effort or feeling that gives joy and happiness to a man. This effort can be made through The creation of something and through behavior also. Art is created with elegant objectives for human welfare. When these objectives are achieved in decorating a home, it then gets the status of art. Now the question is, how will we make our home pleasant and attractive? For this, it is needed to decorate the house properly along with cleanliness of home. This is called interior decoration. We have to know about the elements and principles of art in order to have knowledge about Interior Decoration. We will discuss first about the elements of art.

Lesson 1- Elements of Art

All the things that are beautiful, simple and attractive are art. Like singing and painting, decorating home in a pleasant, comfortable, beautiful and attractive way is also an art. Whatever we see around us has colour, shape, surface, texture and line etc. These are the elements of creating an art. It means whatever is used in the creation of art is called element of art. Among the elements of art, colour, line, form and texture are mentionable.

Colour – We see many kinds of colours around us. Light is needed to see the colour. Mainly the colour is divided into three kinds.

1. Primary Colour – The colour which can not be made from other colours is known as primary colour. Red, blue and yellow are the primary colours.	
2. Secondary Colour – When two primary colours of equal amount are mixed, one secondary colour is made. The secondary colours are –i) Red + Yellow = Orange ii) Yellow + Blue = Green iii) Blue + Red = Purple	

3. Tertiary Colour - When an equal amount of a primary colour and a secondary colour are mixed, a tertiary colour is made.

i. Red + Orange = Reddish orange

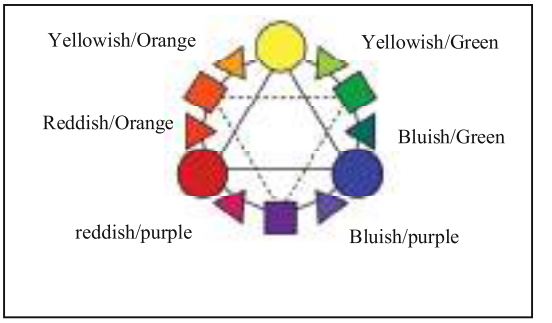
ii. Orange+ Yellow = Yellowish orange

iii. Yellow + Green = Yellowish green

iv. Green + Blue = Bluish green.

v. Blue + Purple = Bluish purple

vi. Purple + Red = Reddish purple



Colour wheel can be drawn with different shapes

Colour Wheel

A colour is made by arranging 12 colours in a circular way. The characteristics of primary, secondary and tertiary colours are understood clearly by a colour wheel. It will be easy to select the colours of furniture and other materials of home decoration if a colour wheel is used.

Effects of colours- Different colours create different kinds of feelings in our mind.

Warm Colours – The bright colours of the colour wheel are known as warm colour. Such as red, yellow and orange.

- The use of warm colour brings the feeling of warmth in an environment.
- Warm colours bring the things near that are in front of the eyes.
- The use of warm or bright colours makes the size of room look small.

Cool Colours – The light colours of the colour wheel are called cool colours. Such as blue, bluish green, green.

- The use of cool colours gives the feeling of a cool, calm, quite and pleasant environment.

- A cool colour takes the things far away that are in front of the eyes.
- The use of cool or light colours makes the room look large.

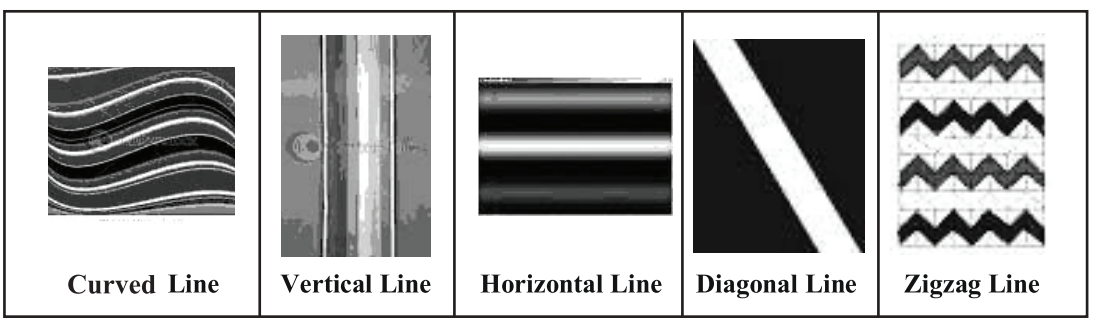
It is needed to select colour carefully to make the house arrangement attractive.

Task - Prepare colours for a colour wheel by mixing different colours and draw a colour wheel.

Line, Form and Texture

Line

Line is one of the most important elements of art. Any movable dot is called line. Lines may be thick, thin, long or short.

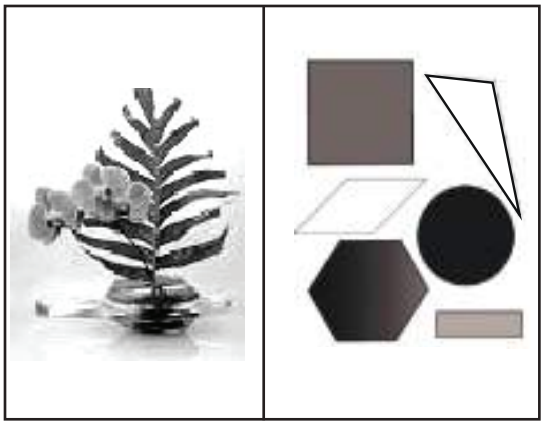


In the above pictures, different designs made of different lines are shown. Do these designs create the same emotional effects on you? Each of these designs is presented in a different way. Curved lines have created a new effect. Vertical lines have increased the height. Horizontal lines make the space more wide. The diagonal lines create more beauty and newness in design. Zigzag line is able to create more movement and varieties than the other lines. It is essential to have the knowledge about the characteristics of the lines to decorate home more attractively.

Form

The overall shape of an object is termed as form. If the form is not right, it will be not a beautiful art. There are two kinds of forms. Such as (i) Free shape or

form – except the geometrical form all kinds of shapes are called free form. Such as shape of a tree, shape of a flower. (ii) Geometrical Form- circle, square, triangle, rectangle etc.



Free Form Geometrical Form

To make anything useful it is needed to make a form. Such as by joining the pieces of wood the shape and frame of a chair is made to sit. If the things are of proper shape or form, it is easy to work with these. We will not get comfort to sit on if the shape of the chair is not right. Variation can be created by using different shapes, e.g. the shape or form of a dining table may be square, round and also oval. According to the needs and taste of the family members, different forms are selected in decorating a home.

Task 1- Draw five designs with the use of different types of line.

Task 2- Draw designs with geometrical and free forms.

Texture

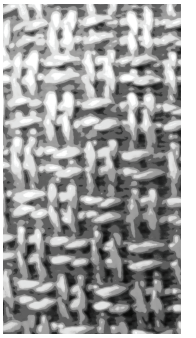
The surface of all objects have their own traits e.g., the surface of wall made of clay, floor tiles, furniture and carpet.

Among these some are coarse, some are smooth and some are rough. The characteristics of the surface of a material is termed as texture. Characteristics of a surface or the texture of a material can be understood when we touch and see the material or object. Texture is one of the elements of creating art. Texture plays a big role to create warm and cool environment. The curtains and carpets of heavy and coarse surface or texture keep the home warm in winter. Again in summer, light and thin textured curtain may create coolness in a room. The curved, polished and smooth furniture or rough textured decorative materials in different rooms can make the home more attractive. Similarly, the beauty of interior decoration can also be increased by using smooth textured floor, window glass and curtains made of different kinds of clothes.


Curtain of bright texture


Flooor of smooth texture


Flower vase of high & low texture


Sofa cover with rough texture


Carpet of heavy texture

Task - Write the names of five objects of different textures.

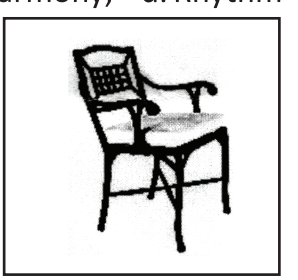
Lesson 2 – Principles of Art

Let us think about making a chair. If the height of the legs of the chair is about 46 centimeter, how much height of the back side of the chair should be to make it comfortable to sit on and beautiful to look at? Will there be any harmony between the design of the handle and that of the legs of a chair? The distance of two handless from the centre point should be equal. Can we make any design of a chair which will attract all at a first glance? How much beauty of a dining room will be increased if six chairs of same design are kept there?

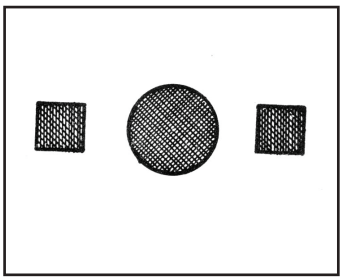
If anything is made keeping these in mind, it will be attractive to look at and fulfill the specific need. The factors that are followed in making a chair are also necessary to create any art. So it can be said that, the principles that are essential to create art are called principles of art.

The principles of art are: a. Proportion, b. Balance, c. Harmony, d. Rhythm and e. Emphasis.

a. Proportion – This principle is followed for making a creation attractive and durable. Proportion states the relation between the parts of an object and their size, shape and ratio. It is something that should be perceived. A ratio is good when there is no excess and scarcity of any characteristic and when everything satisfies us.

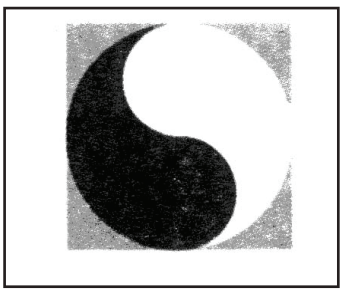

Proportion

b. Balance – We play see-saw in the playground of a school or a park. After sitting on the either sides of a see-saw it will not be possible to play if the weights of either side do not remain same. Again, when one side of a see-saw is heavier, we can still keep playing with two persons sitting together on the other side. This is the principle of a balance. Balance can be created by keeping the object of the same weight on both sides that are equal in distance from the center of it.



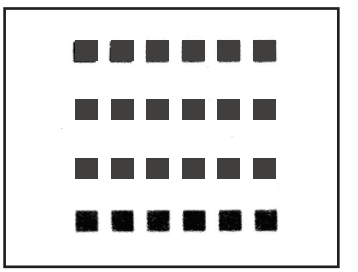
Balance

c. Harmony – After entering a house when we find a relation among floor, furniture, curtain, light, colour etc. and anything does not look inappropriate then we get the impression of a unity in the objects and find a harmony in home decoration. This can be a relation among different parts of an object or between the object and all other elements.



Harmony

d. Rhythm – This is an attractive way of movement. Our vision should not be obstructed when we look at any art. The rhythmic movement can be created by the repetition of the things, e.g., size, shape, line etc. Rhythm is necessary for creating an art continuous and lively.



Rhythm

e. Emphasis – For creating artistic thing, one part is given more importance than the other parts of an arrangement. In any arrangement one special part is given emphasis, e.g., our eyes fall on the flowers if they are decorated in a room. Again, in order to make this decoration more prominent we can keep a large sized and deep coloured flower with some small sized flowers.



Emphasis

Art is to express the techniques of creative thoughts. It attracts us and gives us joy. The skill of creating an

art is a great resource and everyone has this as a latent talent. People cannot use this talent as they do not know the proper ways to use it. However, a person can use his or her creative mind by knowing the right ways and involving his or her creative thoughts. Thus, he or she can make a work joyful and beautiful. As a result, the objectives of creating an art will be achieved.

Task - Draw five pictures following the five principles of art. Write a caption for each picture accordingly.

Lesson 3 – Proper Arrangement of Interior Furniture

We use different kinds of furniture at home. There are some essential furniture which will be available in almost all the houses. e.g., bed, cabinet, table, chair, sofa, wardrobe, dressing table etc. The comfort and beauty of the environment of a house mostly depend on the arrangement of furniture in their proper place. Our activities become easy to do if the furniture is arranged properly. Time and energy are not wasted and physical and mental tiredness are reduced when the furniture are placed in a proper place of a house.

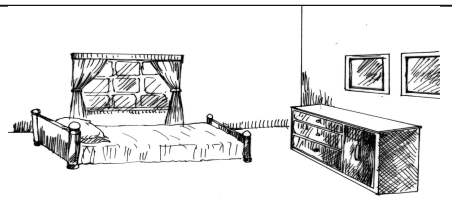
- Extra furniture that we do not need spoil the beauty of a room. It creates discomfort and inconvenience in the movement of a person in a room. It hinders the light and air to enter into the room. The room becomes less specious and it does not look smart and tidy. Thus, before selecting and arranging the furniture, the needs of a family must be considered carefully.

- Furniture must be arranged according to the need of the room. It is important to have sofa, chair etc. for guests in a drawing room. Similarly, bed and cabinet should be arranged in a bed room and a dining table and chairs should be kept in a dining room. Sometimes, we arrange the furniture only to increase the beauty of the room and ignore the real functions of the furniture. As a result, this wrong arrangement causes the use of much time and energy, e.g, keeping the book shelf far from the reading table.

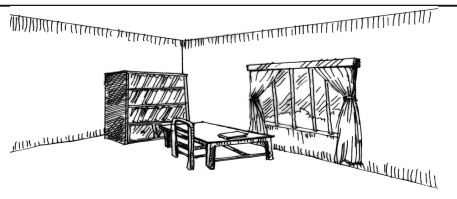
- The arrangement of the furniture should allow the easy movement of a

person. The furniture should be placed in such a way that anyone will not have collision with the corners of a furniture and will not stumble. Especially the convenience of the movement of a baby and an aged member of the family should be considered.

- The purpose of using furniture is to give comfort in doing work. The arrangement of the furniture should ensure this comfort. Bright light should be placed over a reading table and a cooking place. The reading place should have sufficient light and air. Proper arrangement of light and air in work place increases the interest and attention in work.
- All heavy and big furniture should be placed against a big wall. For example, a large cabinet can be placed in front of big wall. It is important to keep an adequate space in front of the furniture in order to use it conveniently. The furniture must be placed in a way where we can open the doors and windows of the room easily.
- The principles of art must be followed in arranging the furniture. The size of the furniture should be proportional to the size of a room. Too many furniture in a small room spoil the beauty of a room.
- Nowadays we have lack of space at our home. This is why there is an increasing tendency to use the furniture that will serve multipurpose. One furniture can serve more than one purpose, e.g., by making the upper part of a sofa flat we can use the sofa as a bed. The space under the sofa can be used as a storage unit respectively. As the scarcity of the space is increasing in our houses day by day more consideration is needed to use the space properly in arrangement of furniture.

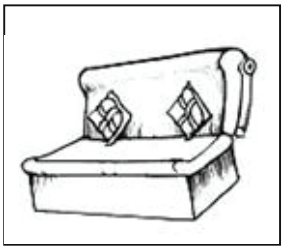


Arrangement of furniture considering comfort & function

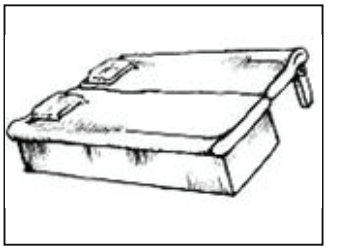


Sufficient light & air increase attention in work

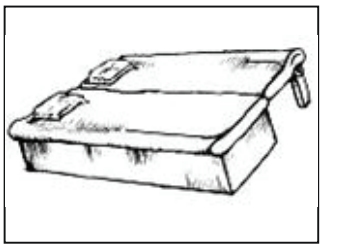
Multipurpose furniture can fulfill more needs



Sofa



Bed



Storage Unit

Task - Make a list of the factors that you will consider for arrangement of furniture and prioritize them.

Lesson 4 – Elements of Room Decoration (curtain and carpet):

We decorate our house with different kinds of elements besides the furniture. Curtains, carpet, wall picture, light and arrangement of flowers are mentionable among them.

Curtains of door and window

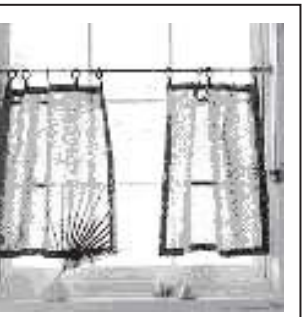
The use of curtains of doors and windows at home has an important role. At first, it saves our privacy. Especially, the use of curtain does not allow anyone to see the movements and the activities of the members of a family at night through a lighted window or door of a house. Curtains are also used to protect the room from extreme heat and dust from outside. It is possible to make the environment of a room more attractive and comfortable by selecting the curtain of a suitable colour, size and design.



Curtain suitable for entering light in a room



Different colours in curtain



Curtain in half portion of a window

Considerable factors in selecting curtain

The colour of a curtain should be selected considering the colour of wall, floor, ceiling and furniture. Nowadays the sizes of the rooms are generally small in a house. The rooms look apparently big by using light coloured curtains. Moreover, they create a cool atmosphere in the rooms where we take rest. Curtains with large prints of check and diagonal lines can be used in a big room. It is better to use curtains with small prints and vertical line in a small room. Curtains with check or print make a small room more smaller.

The texture of the material of the curtain can be light or heavy. This is why the fabrics of the artificial as well as natural fibre can be selected to make curtain. The curtains of heavy texture keep the room warm in winter. The curtains are of various designs. In a drawing room we can use the curtains of decorative design. Some times instead of full length curtain, we use the curtains that cover the half part of a window. In this case, we can get more light and air in a room. The curtain may be used to separate the places of dining and living in the same room. In this case, instead of using curtains, the impression of a curtain can be made by hanging different kinds of ropes made of jute and different kinds of colourful clothes.

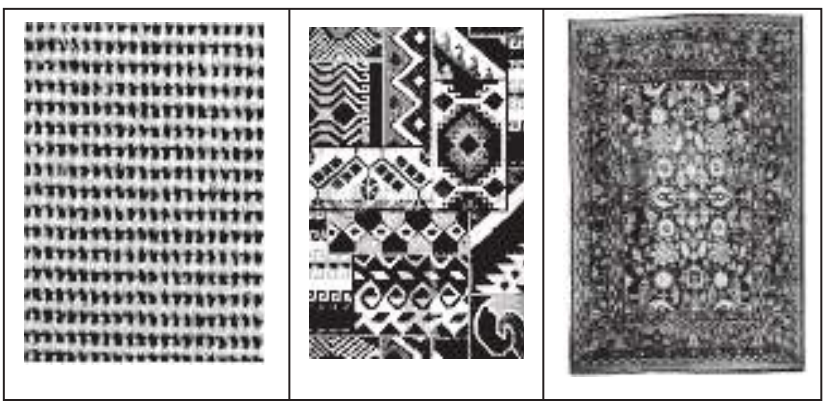
Task - Which factors will you consider to buy the curtains for the drawing room of your house?

Carpet

In our country, the floors of houses are of many kinds. Such as, floor made with clay, cement, mosaic, tiles, wood etc. At present, the use of tiles has become popular in making a floor of a house. Tiles of various colours and designs enhance the beauty of a house. The environment of the house can be more graceful by using carpet on floor.

Carpet can be placed on the floors of all rooms of the house. Again small carpet can be used to decorate a certain part of the floor. An ordinary cement floor or any damage of the floor of an old house can be covered with a carpet. The

durability of colour and brightness of a carpet made of artificial fibre is more, such as, colour and brightness of the carpets made of nylon and polyester are durable. They are also cheaper in price. Less dust is sticked on these kinds of carpets and they can be cleaned easily. Among the carpets made of natural fibres (wool, jute, cotton), woolen carpet is comfortable to walk on. It is also safe for the children. Carpets must be cleaned up regularly. Otherwise the diseases that are caused by dust, e.g., breathing problem, can be increased.



Jute carpet **Jamdani designed carpet** **carpet of artificial fibres**

Decorating room with wall hangings and lights

Wall picture

One of the elements of decorating room is wall picture. Different kinds of paintings and pictures are hung on a wall to increase the beauty of it. It is very important to select a right place to hang the wall picture. Moreover, it is also important to select an appropriate picture for the decoration of a room. Some other points to be considered

- The size of picture should be selected considering the size of a wall. A large and wide wall is suitable for hanging a big picture.
- A large wall can be decorated with more than one picture. In this case, the frames of all pictures should be same. However, it does not look good if many or small pictures are hung on a wall.
- All pictures must be hung on a same height of a wall. If the pictures are hung at the level of our eyes it becomes comfortable for us to see them.

- The subject of a picture should be selected according to the kind of room of a house, e.g., picture of food is appropriate for a dining room.
- The picture should be hung straight on a wall. Materials like rope, string, thread etc. should not be visible while hanging a picture.
- There should be sufficient light so that the pictures are seen.

Besides picture, a wall can be decorated with many other piece of art materials. Many handicrafts made with local raw materials can be used as wall hangings and thus can create a great appeal. In this case, jute, bird's feather, dry leaves, seeds of fruits, straw, oyster can be used as the ingredients of a wall hanging. Clothes, thread, colour, metal, button, sticks of matches also can be used to make wall hangings. A wall hanging becomes more acceptable and appealing to all when history, heritage and culture are expressed through it.



Different kinds of wall hangings

Task- Make a wall hanging by using local items.

Lighting and proper use of light:

Without light we cannot live. Objects are visible with the light. Light is essential for our life. But what is the source of this light? We get natural light from the sun. At night when there is no natural light, we rely on the artificial source of light.

Have you noticed the state of our mind on a sunny or a cloudy day? We like to go outside and work on a sunny day. On the other hand, we become depressed and lazy on a cloudy day. Thus light has an effect on our body and mind. The natural light increases the willingness to work at home. Proper arrangement of

light brings attention to our study and keeps the rooms warm during winter. The arrangement of natural light at home is good for work and useful for health. Nowadays glass is used in doors and windows for entering the day-light inside the house. More air flow and light comes from the directions of south and east in our country because of its geographical position. Air blows throughout the year except winter from the direction of south-east. This is why south and east facing windows should be kept open. Light and air should not be obstructed by placing the furniture near a door and a window. The number, size and location of the windows determine the availability of natural light in a room. Besides, the entrance of proper natural light in a room depends on the texture, colour and design of a curtain.



Shades of different Colours and design

At night we use artificial light. There should be arrangement of light according to the needs of the different rooms of the house. For example, bright light is needed in a kitchen for cooking and over a study table for studying. On the other hand, use of diffused light makes a drawing room attractive. In a bed room the light should be soft and pleasant. Sometimes a shade is used on the bulb of an artificial light. The colour and design of these shades should be selected carefully. The shades of different colour and design enhance the beauty of a room and it bears good taste of a person.

Task-Which factors will you consider for the entrance of natural light in a room?

Flower Arrangement

Will you find any person who does not love flowers? Surely not. The arrangement of our favorite flowers and leaves is a part of interior decoration. The beauty of a room is increased hundred times more if there is a vase with flowers and leaves in the room. If the flowers are arranged at home in any occasion, the standard of that occasion is increased and it expresses the good taste of the family members. Apart from this, we arrange different kinds of flowers to decorate our home for many reasons

- The home is decorated with flowers in order to make the occasion more lively and attractive, e.g., marriage, *holud* ceremony, various religious function etc.
- It removes the monotony of an interior decoration.
- The house or room can be made attractive with less expenditure.
- An effect of natural environment can be created by decorating a room with flowers.
- Flowers in a vase attracts everyone's attention in a room and become center of attraction very easily of a room decoration.
- We arrange flowers to make ourselves happy.
- We arrange flowers in a vase to entertain the guests.

For a beautiful arrangement of flowers we need some special materials, e.g., flower vase or container to keep the flowers, scissors, pin holder, water, thin wires etc.

Before arranging flowers we need to think about the purpose of doing it. Flowers are arranged in different ways for different occasions, e.g., flower arrangement for any occasion is different from the everyday arrangement of flower at home. Generally, both oriental and western styles are followed in arranging flowers. Oriental style is mainly the Japanese style of arranging flowers. The Japanese are very skilled in flower arrangement. Their way of arranging flower is called ikebana. IKE means fresh and BANA means flower. Small numbers of flowers are needed to make an ikebana. An ikebana has three sprays of three different heights. The highest spray symbolizes heaven, the middle one symbolizes human being, and the lowest spray represents the earth.The height of the first spray is the total of the diameter and height of the flower vase. The height of the second one is $\frac{3}{4}$ of the first spray. The small spray is half in length of the second one. Other stems, leaves, flowers of an ikebana are called filler. Many flowers are used for flower arrangement in western style. Flowers are piled up to arrange them in western style. Flowers of different colours are arranged in a beautiful vase.



Flower arrangement- Oriental style



Flower arrangement- Western style

Whatever style is followed to arrange flower, there are some guidelines for doing it. These are —

- Flowers, stems and leaves and their heights should be proportionate to the shape and size of the vase.
- There should be a harmony of colour of flowers with the furniture, curtains and carpet of the room.
- Artificial flowers can not be mixed with fresh or natural flowers.
- The pin holder should be drowned in the water.
- Dry, curled, worm-eaten leaves, foliage must be thrown away.

Flowers made of clothes, paper and plastic can also be used in flower arrangement instead of fresh flower. Decoration of a vase with these kinds of flowers can be kept for a long time. It saves time and energy. However, artificial flowers do not have the same appeal that the natural or fresh flowers have. The fragrance and beauty of fresh flowers attract us more.

Task - Arrange flowers with branches and leaves following different styles. Take help from your teacher.

Exercise

Multiple Choice Questions

1. Which one of the following is a primary colour?
   a. orange b. red c. purple d. green
2. Which line can create more variety?
   a. zigzag line b. diagonal line c. vertical line d. curved line

Read the passage and answer questions 3 and 4

Mrs. Nishat has chosen curtains that match the color of her walls. She also decorates her home with flowers.

3. Which art principle is shown through the matching colors of walls and curtains?
   a. proportion b. balance c. similarity d. rhythm
4. The actions by Mrs. Nishat help create prominence using flowers-
   i. placing the vase in a visible spot.
   ii. using an elegant and eye-catching vase.
   iii. placing the most attractive flowers among others.

Which one of the following is correct?
a. i and ii b. i and iii c. ii and iii d. i, ii, and iii

Creative Questions

Mrs. Saleha and Halima live in the apartments of same space. Mrs. Saleha has used sky coloured curtains. On the other hand, Halima has used curtains which are printed with red flowers. She has kept a large tub made of clay beside the door. One day Maria Akter, from a neighbouring apartment went to Mrs. Saleha's house. From there she went to Mrs. Halima's house and said that it could be better if you have a little bigger drawing room.

a. What is the source of light?
b. What is an interior decoration?
c. On which factor has Mrs. Saleha given emphasis in decorating her room? Explain.
d. Analyze the efficiency of Mrs. Halima in decorating her home.

Short-Answer Questions

1. What are mixed colors?
2. Describe the different geometric shapes in a art.
3. What is the principle of art ?

Section – B

Child Development and Social Relationship

A congenial family environment is essential for a proper development of a child. Besides, a suitable social environment is also needed. For a complete development of children it is very important to give them the opportunity to play and to have entertainment as well. The children suffering from disabilities are also members of our society. It is essential to know about our duties towards them. It is also necessary to know about the rights of children according to the declaration of United Nations. We all have the duties to make a child a good citizen in our family and society.





After studying this section we will be able –

- To explain the inter-relationship between the family and the society ;
- To describe the roles of a family and a society in the development of a child;
- To build up ourselves as the important members of a family and a society;
- To explain the importance of games and entertainment for a complete development of a child;
- To explain the rights of children according to the declaration of the United Nations ;
- To explain the steps to be taken in preventing the risky child labour and child trafficking ;
- To explain the children suffering from different kinds of disabilities; and the responsibilities of the family and society towards them.

Chapter Four

Child as a Member of Family and Society

Lesson 1- Children in the Family and the Society

We all in a way live in a family. A family is an organization where mother, father, brother, sister and other members live together in a house. Babies become teens from children, and grow as adults from teenage. When an adult gets married, a new family is again created. In this way, the cycle of a family life keeps on moving.

Comparing to other animals a human baby or child is the most helpless one when he or she is born. A new born baby is fully dependent on others. A child grows up very slowly and passes different stages. A child needs to get help, education and training for a long time to become self dependent. It is the family who provide this help in growing up of a child. A family is a kind of a shelter for a child. It is the family who gives company to a child from his or her birth until he or she starts getting the company of his or her peers and friends.

After the birth of baby, a relationship is created between the baby and the family. The form of this relationship changes as the child grows up. A child becomes able to do his or her own work, can give his or her own opinions, can participate in some small works of the family. Gradually, a child becomes involved in the activities of the family and becomes an important member of the family. However, the more a person helps others, comes forward to help in others' problem, shares sorrows, becomes friendly with others, takes part in family activities, the more she or he becomes an important member of the family.

A family is a small unit of a society. Some families together make a society. In ancient time when there was no family life, men had to procure foods, save themselves from the ferocious animals. To save themselves from these kinds of dangers, problems and sufferings they felt the importance of living together. Men started to live in a group to protect themselves from all the odds and thus social life began.

Child development and social relationship

A family fulfills the needs of food, clothing and comfort, gives a secured environment and gives the feeling of security to a child. In order to fulfill these needs, people from different parts of the society come forward to help the family. For example – farmers give us food, weavers give us clothes, doctors give us treatment, teachers give us education etc. It is not possible for a family to walk alone without these social co-operations. Thus, a family and the society are depended on each other. The child is a member of a family as well as a member of a society.

At present our demands are much more and of different kinds. There are many organizations in our present society to support the families. There are schools and colleges for education, hospitals for health care services, courts for social discipline, industries for different kinds of products etc. Although different organizations of the society are providing supports to a family, some basic and important supports for the children should come from a family itself. For example – a family should ensure health care and security as well as teaching social norms and behaviour for a child.



Social help in the health care of a child

There are some rules and regulations in every society. A family teaches a child how to behave according to these rules and regulation of the society. It is acceptable to everyone of a society to behave properly with all, maintain rules and discipline, co-operate others etc. On the other hand, quarrelling, fighting, ill manner, polluting the environment, destroying other's resources etc. are not expected in a society. The children are the future of a nation. There will be welfare of the society as well as of the country if a child grows up with proper and acceptable behaviour. Thus, every child being an important member of a family and the society can contribute to the welfare of a country.

Task 1-	As a member of a family what will be your responsibilities?
Task 2-	What are the qualities that you should have as you grow up for the welfare of the society?

Lesson 2 – Role of Family Environment

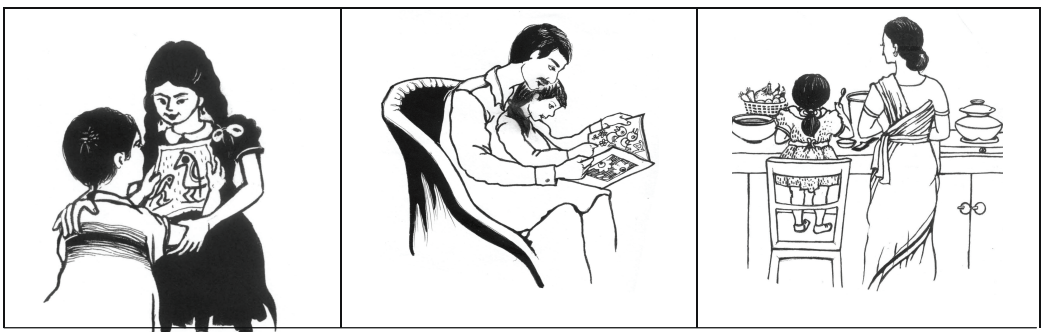
A Well family environment is very important for the proper development of a person. A family possesses a well environment when it has the following characteristics

- When there exists a good relationship among the members of a family. Here the members of the family share their experiences and problems with each other; gives good advice to each other and co-operate each other; and there will be no quarrel.
- A family where there is every chance for development - scope for playing, elder members play with the children, play music for them, tell stories to the children, take them outside to satisfy their curiosi ties, respond to their different questions with patience.
- A family where children are praised and encouraged to develop their different kinds of skills.
- When there is an opportunity to mix with other children and to have the company of older members of the family.
- Where the principles for guiding the children are followed properly.

The base of a child's behaviour is built up with the education and care that he or she receives from the family in the early 5 years of his or her life. Parents and other members of the family are the primary and important teachers of a child. They help a child to build up good habits. A child learns to do a good work quickly if he or she gets the inspiration for doing that work from the family. When everyone of the family dislikes a work, he or she learns that it is a bad work. A child's habits for doing good and bad works are developed from the family.

A child becomes friendly and able to mix with others when a family takes the child to the outside of home, satisfy his or her different curiosities and provide

opportunity to play with the children of the same age. A child's mental abilities, e.g., language skill, memory, attention etc., increase when he or she listens to song, story and rhyme. A child learns to co-operate and behave in a socially acceptable way when he or she mixes with other children of his or her age. On the other hand, a child becomes confident when he or she gets chance to mix with elders.



Encouragement and praise in any activity increase the skills of a child

Company of parents give more security

Taking part in house hold chores helps a child think him or herself as an important person

One of the techniques for guiding children properly is to behave with them positively. Negative attitudes create obstacle in the development of a child. For example- *do not do it*; *do not do that*; *you cannot do anything* – we should avoid saying these kinds of sentences to the children. *Let us do a work together; You cannot do this now, so what? You will be able to do if you try hard; If you do it, everyone will praise you.* – sentences like these are helpful for the development of children.

Children express their emotion strongly. They scream, get scared or angry very quickly. We should not ignore their anger, fear or sufferings. Rather we should take care of their emotion carefully and be sympathetic to their feelings. This caring attitude towards the children will make them happy. A child can grow up as an important member of a family as well as a society through a proper guidance of the family. A child learns different kinds of manners from a family as he or she gets love and affection from his or her parents and siblings. The influence of these love and affection is very strong.

Task 1-	Make a list of some negative and positive comments that can guide a child.
Task 2-	Make a poster of various characteristics of a congenial family environment.

Lesson 3 – Role of the Family in the Development of a Child

A baby is helpless and dependent on others when it is born. A child can walk, talk, laugh, and help others as he or she grows up. These behaviours are different kinds of development of a child. Development means qualitative changes which a child achieves slowly. These are mainly physical, cognitive or mental, emotional and social changes of a child.

1. Physical development - It includes the size of body, shape , complexion, physiological activities e.g., (heart beat, breathing, taking food etc.), development of five sense organs (seeing, hearing, touch, smell, taste), skills of movement, walking, running and physical health etc.

2. Cognitive or mental development-It means the changes or development of intelligence. It includes attention, memory, organizational and every day knowledge, ability to solve problem, imagination, creativity, language efficiency, ability to understand anything rationally etc.

3. Emotional and social development- Anger, fear, anxiety, jealousy, excitement in sorrow or happiness – these prove emotional development. There are some favorable social developments – co-operation, sympathy, participation, attitude to help others, generosity etc. On the other hand, there are some behaviours which are against the social norms- attacking attitude towards others, selfishness, self-centeredness, detrimental behaviour etc.



Physical Development



Cognitive Development



Emotional and social Development

Family is a primary and permanent place of a child for all kinds of development. Other factors that influence the development of a child cannot be compared with the influence that a family makes. A strong relationship built among parents, brothers and sisters in a family through a long time and remains permanent throughout the life.

Role of parents

Mother is the first and most important person in building a bond with the child. A relationship between a mother and a child begins through breast feeding. Smile and voice of a mother create a feeling of joy in a child. Just after the birth of a child the demand to have mother's touch is created. A mother who takes care of her child with joy helps the child to have a healthy development.

However, father also plays a vital role in bringing up a child. A child in a family feels more secured when his or her father gives him or her company and shares emotion. This child will suffer less from any social and behavioural problems. Both physical and mental healths of a child are affected due to the lack of parents' affection. In this case, weight of a child does not increase according to his or her age, a child loses interest in doing any work, and his or her face looks pale and sad.

Role of siblings

Children are fond of imitating. A child learns behaviour from other members of the family especially from his or her elder brother and sister. The good relation with brother and sister plays a special role in the development of a child. Siblings give company to each other, learn to share, discuss openly about any problem when there is a friendly relationship among them. In this way a child learns to adapt to himself or herself any difficult situation of life. On the other hand, rivalry and hatred among siblings, superiority complexes etc. bring indiscipline and unhappiness in a family. As a result, a tendency to attack others and quarrel with each other increase and a sibling does not help other siblings. In this circumstance, siblings feel sad; they do not spend their time with joy.

Task - How do you and your brother or sister help each other in your family? Give some examples.

Lesson 4 – Role of a Society in the Development of a child

Which moving force, after family plays a vital role in developing childhood and adolescence? The answer is very clear- peers or the group of the same age. Children spend a long period of time with their peers since their going to the school. Children stay in the classroom, participate in many co-curricular activities other than study with their peers. They discuss about different media, such as, radio, television and computer with their peers. Moreover, children play unlimited games with their peers.



A group of peers at adolescence who plays a vital role in development after family

Children at this age are not satisfied by spending time only with their families. Rather parents and peers complement each other. The love and affection and the guidance of parents give a sense of security to the children. On the other hand, in order to increase different social skills, it is necessary to mix with peers. For example- children need to learn to help each other, share beliefs and ideas, express gratitude to others etc. By learning these skills, children help others when anyone is in danger.

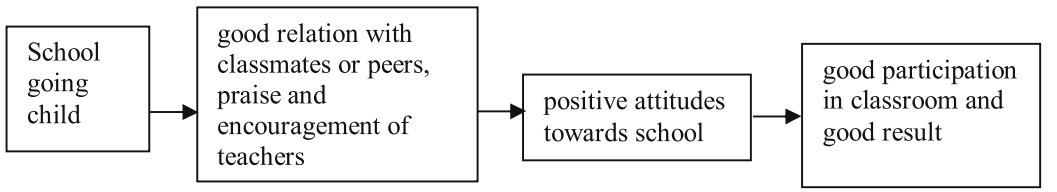
In a play ground, children play games in a group. When children play in a group they can develop their language skills, get leadership qualities, learn to make plan etc. They also learn that a good result comes from a regular practice.

Sometimes children become influenced by the peers and get held of some bad habits. Bad influence of peers sometimes creates complex relationship with the parents. In this case, children tend to ignore their work and responsibilities at home. This attitude also initiates quarrel with their parents.

School- School plays a vital role in building up a student a good member of a family and society. The school is an organization where students get knowledge. Teachers play the key role in providing knowledge to them. Teachers create the interests to study among children and help them to develop their intelligence and morality. Following are the roles that teachers play in the development of children:

- Teachers help the students to understand the lessons easily and help them to gain knowledge.
- Teachers encourage good manners and make them aware of the bad manners.

- Appreciation of teachers increases the participation of children in the classroom, encourage them to obtain good results in the examinations and create positive attitudes about school among the children.
- Students tend to follow their favourite teacher and set the goal of their life inspired by that teacher.



Children always want encouragement. Physical punishment and threat of punishment are harmful for the development of children. It creates panic in their mind and as a result they fear to ask questions spontaneously to the teachers. It also creates a pressure on their mind which is harmful for the development of their brain.

Neighbours and relatives

It is difficult for a family to move alone without the help of neighbours and relatives. The co-operation and support of neighbours and relatives are also helpful for the development of children. In any family crisis, e.g., death of a mother or a father, illness, disagreement, accident etc., neighbours and relatives come forward to help a family. Children need love, affection and advice in a family crisis. Children facing such problem can discuss openly with the neighbours and relatives who they can depend on. It reduces the frustration of children. Especially the adolescents learn to face the problems and to solve the problems, become less frustrated and less indisciplined. Moreover, supports from neighbours and relatives help the children to adapt with all odds of the society and go ahead easily.

Task 1 - What kind of manner do the children learn through peer group?
Task 2 - What kind of development does a child have with the co-curricular activities?

Exercise

Multiple Choice Questions

1. Which quality is needed to become self-reliant?

a. move forward to help others when they are in danger

b. to stay in a safe distance

c. education for a long time

d. to depend on others

2. What quality do children have when they mix with their peers?

i. self-confidence

ii. attitudes of co-operation

iii. respect to each other

Which one of the following is correct?

a. i and ii

b. i and iii

c. ii and iii

d. i, ii and iii

Read the following stem and answer to the questions number 3 & 4

Ruma and Kona are two sisters. Their mother encourages them to do their own works. Ruma is a student of class VII and her sister is a student of class VI. Ruma very often arranges the books, clothes and bed of her sister.

3. What kind of attitude does Ruma have?

a. co-operation

b. discipline

c. leadership

d. sympathy

4. What will be the result of Ruma's behaviour towards Kona?

i. Kona will be less willing to work.

ii. Kona will be dependent on others.

iii. Kona will be sympathetic to others.

Which one of the following is correct?

a. i and ii

b. i and iii

c. ii and iii

d. i, ii and iii

Creative Questions

1. Rebeka Begum has her busy husband and two children, Suman and Sumana, in her family. Her husband is always busy at his work. Rebeka Begum exchanges her feelings with her children like a friend. Their father also spends time with them in spite of his busy schedule and takes them to the parks and historical places for their entertainment.

a. What is a family?
b. Why is it necessary to follow the rules and regulations of a society in making a good citizen of the country?
c. What kind of manner of a child will be developed from the influence of Rebeka Begum's behaviour towards her children?
d. The environment mentioned in the stem is helpful to obtain a sound development for the children – justify this statement.

2. Roni reads in class VII. He discusses the lessons and other general topics with his classmates. Roni made a club named 'Sabuj Shangho' to make his community pollution free with his friends. Roni and his friends with the help of community people arranged some large drums to keep all wastes into them properly. "Sabuj Shangha" organized by Roni and his friends is involved with many development works which have been appreciated by all. Roni's mother always encourages him in his activities.

a. Which technique is the most important to guide children properly?
b. Why is it necessary to have a friendly relationship among siblings?
c. Which quality of Roni has been developed through the activities mentioned in the stem? Explain.
d. 'Mother's encouragement and good association have made Roni familiar with all.'– justify this statement.

Short-Answer Questions

1. What is the role of school in a child's moral development?
2. Why do people prefer to be in groups?
3. What roles do teachers play in the social development of children?

Chapter Five

Role of Playing Games in the Development of Children

Games of Children

Children play games. It gives them entertainment and joy. Playing games not only gives pleasure but also develops physical, mental and social skills. It increases intelligence, tolerance, sympathy and helps to build sharing attitude. Children make friendship with peers through playing games. Through this activity children can express themselves to others, learn to understand others and respect others' feelings. By playing games with others children learn to recognize something as right or wrong. Through this habit children can nourish their imagination and creative mind.

In early years of childhood when the brains of children are not ready for studying then they learn many things through playing. For example – it is easier to learn through play rather than memorizing the word, letter and numbers. It is proved in modern research that plays are very important for all kinds of developments of children. Researchers have found that, play is a primary and simple medium of achieving physical and social skills which help them to adapt to the every stage of life. Playing games increases the experiences of children, helps to become self confident. Children need to study regularly, but habit of playing games is a source of entertainment for them. This habit protects children from the tendency to commit a crime. It acts as a stimulation for the children suffering from any disability.

Lesson -1 Classification of Games

There are different kinds of games based on their characteristics.

Games with the movement of body

It is the game which is played by the children with the movement of different parts or limbs of the body. For example - running, playing football, riding cycle, swimming, climbing trees etc. The first two years after birth a child gets pleasure from moving hands and legs and sucking fingers. With the increase of

age the kinds of movements of the body change. When a child grows a little, he plays by crawling, swinging, running, climbing etc. Generally children become skilled in playing games with the movement of their limbs and body when they are five years old. Children start playing this kind of games in a group when they are 7 to 8 years old, for example, *football, bouchi, gollachut, daria bandha etc.*

Playing to explore anything

Sometimes children open the different parts of a toy or break it into small pieces in order to explore the mystery of a toy. Although the toy is broken, children get pleasure to see the tools and machines inside the toy. By doing this they gain the idea about the shape and size of the toy. They try to know what a toy is made of and how a toy works etc.

Playing to create anything

When a child makes some thing by using his own imagination and feeling then it is a creative game. Generally when a child is three years old he or she tries to create something, for example, a child makes plane and boat with paper, house with sand, clay, flour and block, bridge and other materials of different shapes, and get pleasure. A child's imagination is developed by doing this. A child in his or her childhood expresses his or her imagination and feelings easily through drawing and painting.



Playing to explore



Playing to create



Playing using imagination

Playing by using imagination

Generally children of 2 to 3 years old play by imitating the real life situation. For example – a child plays imitiating the character of a mother, a doctor, patient, driver, vendor, pilot etc. When children play by using their imagination they become aware of different responsibilities of a society and become more imaginative.

Getting pleasure by using visual and hearing senses

Sometimes children get pleasure from watching others at play. Watching television and listening to music are the sources of entertainment through which children get pleasure. This develops children's language skills, imagination and increases creativity.

There are two kinds of games

1. Outdoor games and

2. Indoor games

1. Outdoor games - Games that are played in an open field or place are called outdoor games. For example -football, *kabadi,* cricket, *gollachut,* hide and seek etc. Children need to have movement of their body to play outdoor games. These physical movements are necessary to have physical fitness.



Outdoor game- Football

2. Indoor games - Games which are played in home environment inside a room or a house are called indoor games, for example, chess or *bagaduli,* playing with blocks, drawing picture etc. Indoor games increase intelligence and creativity.

Lesson 2- Role of Games for the Physical Development of Children

If a child plays spontaneously it proves his normal growth. Body of a child becomes stout and strong by playing games.

- A child's breath becomes quick and deep as a result of his or her body's movement when he or she is at play. Blood circulation of body increases and polluted substances come out of the body by playing games.
- The physical exercise which is accomplished by playing game is useful for heart and respiratory system of body. Different parts of the body do not develop and work properly if a child does not play or spends time sitting idle.
- The pleasure and entertainment that are obtained by playing games are

useful for body and mind. Playing games inspires children to do something with enthusiasm and creates more awareness among them.

- Playing different kinds of games prepares children to face different kinds of situations in future. We need physical strength to work hard in our life. Children become physically strong by playing games. As a result, they do not get tired quickly.
- The calories obtained from foods is stored in the body when there is no physical labour. Calories of the body are burnt when a child plays. As a result, the child remains healthy and strong. Otherwise, these calories will be stored as fat in the body and the weight of the child will be increased.
- Most of the outdoor games are helpful for the physical development and the healthiness of children. Parents also have mental satisfaction when their children are healthy.

So, games help physical development of children in the following ways—

- A child has physical exercise as a result of the movement of different parts of the body. Thus, the whole body is built up properly.
- There is a good blood circulation.
- Polluted substances come out of the body with sweat.
- The muscle of the body remains active and strong.
- Movement of muscles can be done successfully.



Playing with the movement of body keeps the body healthy

- Digestive system works properly. As a result, appetite increases.
- There is sound sleep.

Nowadays, children of urban areas are forced to play inside home due to the lack of sufficient play ground. These children are used to play different kinds of indoor games. Among these games computer game is the most popular game. Children tend to play this game for hours where there is no movement of body. As a result, their bodies are not built up properly and they suffer from obesity.

There is also a risk of having pain on shoulder, back and waist by playing computer games for a long time. Besides, different kinds of problems of eyes are created as a result of looking at the screen of the computer for a long time.

Task 1- Make a list of outdoor games and indoor games that you know.

Task 2- Describe the importance of the game with the movement of body for physical development.

Lesson 3 – Role of Playing Games for Social Development of Children

Playing games gives us pleasure. Moreover it also helps us to develop socially. It means, playing games helps us to achieve the social qualities. Generally children achieve the social qualities through playing in a group. For example – children attain the social qualities when they mix with others, talk with others, build a team, lead the team etc.

Children become social through playing games as they grow up gradually.

Playing alone –In the first year after birth a child plays alone with his or her arms and legs. A child gets pleasure by holding and chewing anything and making sound with a toy. While playing alone sometimes they play with a toy and sometimes they don't use any toy. A child plays alone at this age as he or she does not have social development.

Playing alone while sitting together with other children – Children do not play with each other. Rather they play alone with toys while sitting together. In this case, children do not communicate with each other. However, this is the first step of socialization. Children of one and half years to three years old play in this way.

Playing by cooperating each other- Children play by sharing and exchanging their toys with each other. The children play in this way from their age of 3 to 5 years.



Playing alone



Playing alone sitting with other children



Playing by co-operating each other



Playing in a group

Playing in a group- Children play games by making groups, e.g., cricket, football, *kabadi* etc. Usually, children make their own rules of games when they play in groups. As a result, the social qualities, e.g., following a team's rules, awareness, willingness to co-operate etc. increase among them. Children tend to play in groups at the age of 5 to 6 years.

The social qualities achieved by playing games are—

- It increases children's awareness of their own duties and responsibilities
- It creates attitudes of co-operation
- Develop the qualities of leadership
- Children adapt easily to a team or group
- Children exchange or share the playing equipments and information with each other
- It helps children to do anything constructive
- It creates a willingness among children to obey the rules and laws



Social development through playing in group

In early childhood a child plays with parents and other members of the family. As a result, a good relation is built among all members of the family and the child. Playing in a group has an important role to develop the moral qualities along with the social qualities. Though the children attain knowledge on moral values primarily from the family, it is also practised in a play ground. Children can acquire moral values easily through playing games, such as- self confidence, honesty, truthfulness, ability to understand the difference between right and wrong, good and bad, etc.

Task – Describe what kinds of games help for socialization?

Lesson 4 – Role of Playing Games in the Development of intelligence and Creativity of Children

We play various types of games. Among these some games develop our intelligence and creativity. The more a person is intelligent, the more he or she is creative. Intelligence is a mental ability through which we can adapt ourselves easily to a new environment. It is not possible to show skill in any game without applying intelligence and efficiency.



Drawing pictures



Playing chess

Children play different games according to the gradual development of their intelligence. Such as playing to explore, playing to create, and playing by using

imagination. These games help to develop the intelligence of children. Through these games children use their thoughts and imaginations and thus can develop their intelligence. However to develop the intelligence of a child creativity is very important. Creativity makes a child more lively.

Creativity can be expressed easily through game. Creativity means the capability to express one's own creative mind or the capabilities to create something new. Creativity of a child is expressed when he or she makes something new with a piece of paper or wood, clay, sand, block, flower, branch, leaf, and the things that are thrown away e.g., paper-box, disposable cup, small container etc. The child can express their secret desires independently and spontaneously through creative activities.

Important factors to develop intelligence and creativity

1. Easy use of thoughts - This is an important factor to develop creativity. The children can express their thoughts through drawing picture, colouring, and writing poems and stories. However, for doing such creative works, it is necessary to think minutely, increase vocabulary, and know synonyms of many words and proper use of those words. A mind's creativity can be flourished through a free and spontaneous thought process.

2. Originality - An important factor of creative work is to have novelty. While doing a work there should be some newness rather than using the memory always.

The principles that are to be followed to develop the intelligence and creativity of a child through playing games –

- Sufficient time should be given to the children to play. Children should be encouraged to perform constructive and creative play.
- We should arrange the toys and the equipment of play which can increase the curiosity of children. Such as- branches of tree, flower, leaf, paper, colour, clay, soil etc.
- Toys or equipment of play should be safe and attractive.
- The place where children will play should be full of light and air, open and safe.
- Children should be given toys that are suitable for their age and will create interest among them.

- Children should be given chance to play spontaneously and should not be interfered always.

It is not needed to use expensive toys and equipment to develop a child's creative mind. Rather, children should be given plenty of opportunities to play and be encouraged to play different kinds of games.

Task - Make a list of the kinds of games that will develop your creative mind.

Lesson 5 – Hobby and Entertainment of Children

Hobby is one's interest to do anything at leisure time. On the other hand, entertainment keeps one's mind cheerful and happy. Children have different kinds of hobbies. For example collecting stamps, toys, coins, pictures, cards, posters etc. Some children have hobby to read poems or story book, some collect different kinds of small cans or boxes, some like to travel, draw picture, while some other like gardening. Hobby and entertainment of children mostly depend on their own wishes and the environment that they get. Hobby and entertainment have much educative value.



Postal stamps



Himchhori Sea beach

Postal Stamps –Children can know about different countries and places by collecting stamps. Moreover, it is possible to win awards in a competition by exhibiting collected stamps.

Books – Knowledge and imagination can be increased by reading books of rhymes, story, poetry, history, specially the history of our liberation war, thriller, autobiography of famous personalities etc.

Travel – Through travelling one can enjoy the silver rivers, green forests, blue sky and other natural beauties of rural places of Bangladesh. Other tourist places of Bangladesh are fort of Lalbag in Dhaka, National Monument in Savar, amusement park for children, National museum, Foy's lake, sea-beach of Cox's Bazar, Rangamati, *Madhab Kundo* waterfall in Sylhet, clear water stream of the hilly river in Jaflong, *Khasia* village, sea beach of Kuakata, Mayanamati in Comilla, Paharpur in Naogaon etc. The store of knowledge can be enriched through travelling these historical places.

Collecting Coins – Different countries of the world use different kinds of coins. The name of these coins are also different. These coins have the pictures of famous personalities, places and symbols of different countries on them. Such as – the picture of lotus, *hilsha* fish, deer, jackfruit etc. are stamped on the coin of Bangladesh. From these portraits the knowledge is obtained about the culture and tradition of a country.

View card, Post card – We get the pictures of famous places, personalities, important agricultural and industrial goods, handicrafts, natural scenery etc. in a view card or a postcard. From view cards or post cards we can have ideas on different kinds of things of a country. Moreover, we can get pleasure by making cards by drawing picture which expresses our creativity also.



Singing



Gardening

Singing and reciting poetry – Leisure time can be utilized by singing and reciting. Children can get pleasure by participating in cultural programs of school. It gives pleasure to others also.

Gardening and raising animals and birds- One can have hobby of gardening in the yard or in a tub, growing flowers, fruits and vegetables on the roof of the house. The beauty of the home can be enhanced and the need of fruits and vegetables of family can be fulfilled by doing this. A child also have hobby of raising pigeon, cuckoo, hen, duck, goat etc. and can get entertainment as well.

Hobby and entertainment play an important role to increase the creativity and for a complete development of children.

Task- How do you maintain your hobby beside your study? Describe.

Exercises

Multiple Choice Questions

1. Which one is a constructive game?

a. swimming
b. riding cycle
c. making doll
d. hide and seek

2. Through which game the quality of leadership is built ?

a. video game
b. chess
c. football
d. drawing picture

Read the following stem and answer to the question number 3 and 4

Fahim is a very good student. He gets pleasure by reading story books and drawing picture in leisure time. Fahim plays chess with her mother and often wins.

3. What kind of development does Fahim have by playing games?

a. skill
b. socialization
c. attitude to imitate
d. strength of muscle

4 In which area does Fahim have improvement?

i. mental development
ii. intelligence
iii. capability of creation or invention

Which one of the following is correct?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii and iii

Creative Questions

1. Faraz is a dependable goalkeeper of the football team of his school. He tries to co-operate his neighbours. He sometimes makes different kinds of flowers, birds and other designs by cutting pieces of paper in his leisure time. Besides, collecting stamps and reading book are also his hobbies.

   a. What kind of game is chess?

   b. Why is the hobby of coin collection helpful to increase the knowledge beside entertainment?

   c. What kind of development does Faraz have with the way that he spends his leisure time? Explain.

   d. 'It is possible to achieve the social qualities through following Faraz.' -Analyze this statement.

2. Sumita is a working lady. She always gives nutritious foods to her only daughter Mita who is 5 years old. Mita spends her leisure time by watching television and playing computer games. Recently Sumita has noticed that Mita is becoming fat and instead of mixing with other children of her age she plays alone.

   a. How does every healthy child spend most of the time of a day?
   b. The nature for play is changed with the growing of age– explain it.
   c. Explain the reasons for physical change of Mita.
   d. How will the ways that Mita's spends her leisure time affect on her social development? Analyze.

Short-Answer Questions

1. What is a constructive game?
2. What is the indoor game?
3. How do sports help a child's physical growth?
4. How does entertainment benefit a child's development?

Chapter Six

Child's Rights According to the Declaration of the United Nations (UN)

Definition of Child - It is difficult to define the child or children in a word. We call children the boys and girls of five years old, again we call children the boys and girls of eleven years old. Child psychologists have classified the span of childhood into several stages. According to them, from birth to puberty or before reaching at the age of adolescent all boys and girls are called children. According to the United Nations declaration, all who are under the age of 18 (eighteen) are children. According to the Natinol Children Policy 2011 and the Children Act 2013 of Bangladesh, those who are under the age of 18 are considered as children. Surely you all know about the United Nations. The United Nations is an international organization which is made for giving co-operation in favour of world's peace and security. For ensuring the rights of children, in November, 1989, child's right is accepted unanimously in the United Nations assembly. In September 1990, it is turned into a part of international law. In history, it has become most acceptable human rights agreement extensively. Among 193 countries of the United Nations 191 countries have signed and given consent to this agreement. Bangladesh is one of them.

Lesson 1- Child's Rights

When a child grows up with negligence, has ill health due to malnutrition and disease, remains illiterate for lack of education from his or her early childhood, the child then eventually gets a precarious life and all his potentialities die at their early stages. This is why besides ensuring child welfare there is a description of protecting children from all kinds of extortion, inequality, neglect and torture in the 54 clauses of this declaration. Some clauses of the declaration are discussed below:

Considering a person of age up to 18 years as a child- According to the declaration of the UN those who are below the age of 18 years are children. Unless the law of a country or state approves someone as adult with the age less than 18 everyone of that country or state will admit this declaration of the UN.

All children have equal rights- According to the declaration all children have equal rights. There will be no discrimination on the grounds of gender, race, nationality, religion, physical capabilities, rich and poor. It means that there will be no discrimination among children.

- All children have equal rights for food, clothes, shelter and education.
- The children of minor and indigenous group have the rights to practice their own culture, religion and language.
- The children who are physically and mentally disable due to hereditary disorder, any accident, natural disaster have rights to get all advantages that other children get.



All children have equal rights



Rights of education

Every child has the right of education- The chief responsibility of a state is to make primary education compulsory and free for all children. It is the government's responsibility to ensure secondary and vocational education for all children. In the case of government's inability to give these educations free, it will provide financial help to the children if necessary. The Government will take necessary steps to reduce the rate of drop out from schools.

The objectives of education

- To have a complete development of personality, intelligence and physical and mental capabilities.
- To build love and honor for parents, teachers, elders, younger ones, own country, language, culture, values as well as other culture and society.

Lesson 2 – A child will not be Given any Punishment; Child's interest is the First Priority and Child Labor

A child will not be given any punishment

If a child commits any crime before the age of 18 years he or she will not be given any punishment. Instead of giving any punishment-

- They can be sent toChild development Centers for juvenile delinquency.
- Help them to rectify themselves in the Child development Centers and prevent their delinquencies by giving them friendly advice. Besides, they should be given general and technical education and vocational training as well.
- The children will not be given punishment for the crimes committed by the parents and other members of the family.



Children will not get any punishment

A child's interest is the first priority- Children's interests should be given the highest priority and everyone should maintain it carefully. However, it does not mean to give them anything they want. Rather it is said that –

- We need to take all necessary steps to protect the rights of children. If parents fail to provide education, safety and security to the children due to the lack of money and cannot take care of them, the government will ensure these services by prioritizing the rights of children.



A Child's interest is the first Priority

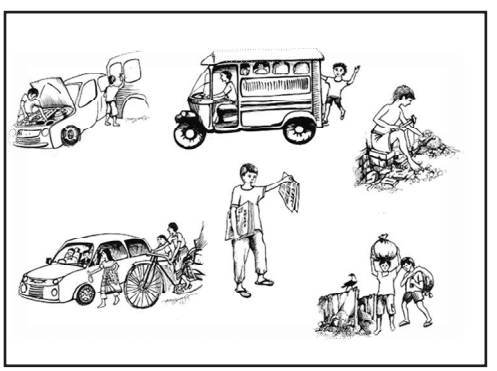
- Many government and non-government organizations and agencies are working for the children. Such as – UNICEF, Save the Children, CARE etc.
- All capable and rich people should come forward to help the poor children. And they should be given the opportunity to grow up in a better way.

Child labor- In our country many children do not go to the school. Rather they are engaged in various activities. On the other hand, many children work besides go their study and to the school. These children earn money and help their parents for their livelihood. The work that the children do for earning money for their livelihood is called child labor.

According to the labor law of Bangladesh, clause no. 2(63), year-2006, the labor done by the children under the age of 14 years is considered as child labor.

Many children are engaged in doing the works that are hazardous for their health. In such cases, there is also risk of death. Work like this is called hazardous child, labor, for example, carrying loads, working in a workshop, collecting materials from the waste, working as a conductor in a vehicle, e.g., *tempo* etc. If the children of tender age are engaged in risky works, their physical, mental and social development get hindered.

Therefore, rights of expressing opinion independently, receiving free primary education and getting treatment during illness are established in the declaration. It is asked to the state to take necessary steps to prevent the children from engaging in hazardous work.



Hazardous child labor

Therefore, rights of expressing opinion independently, receiving free primary education and getting treatment during illness are established in the declaration. It is asked to the state to take necessary steps to prevent the children from engaging in hazardous work.

You should behave well with the children who work at your home or at your relative's home. You should request your guardians to give them opportunity for education. Poor children should be given new clothes and good food in the festivals, e.g., *Eid*, *Puja* etc. You should encourage your friends in this regard.

Task - What are the rights for the children who are employed to do household works at home.

Lesson 3 – Child Trafficking

Child Trafficking- Child trafficking is a problem in our country. The kidnappers kidnap the children without informing the parents or guardians. They sometimes kidnap the children by cheating, threatening or showing monitory benefit to the parents. Sometimes they take the children by force and sell them to other countries. This is called child trafficking. There are groups of traffickers throughout the country for kidnapping and trafficking children.

These traffickers

- kidnap children and traffic them out of the country.
- demand ransom after kidnapping the children.
- exploit children involving them in human activities.

There is a law against child trafficking in the declaration. The implication of this law has been assured in the declaration. However, we need to be aware of child trafficking. Following are the ways to protect them from being kidnapped or trafficked–



Arresting the kidnappers

- Do not go far away or in an isolated place alone.
- Do not go anywhere with an unknown person or with a person who you know little.
- Do not take any food, toys, money and any material from an unknown or a less acquainted person.
- Do not go anywhere without the permission of your parents.
- Know the techniques of kidnappers for kidnapping the children and let others know about it so that everyone can be aware of child trafficking.
- Create awareness against child trafficking among the children and elders in your own locality.
- Most of the children of our country are trafficked through the border areas. This is why it is necessary to increase the awareness among the people of border areas.

Child trafficking is the most common crime in our country. One of the reasons for this is to have a large number of poor people in our country. Moreover there is a lack of education and awareness among people.

Child's rights to give his or her opinion – Each child has right to express his or her own opinion independently and let the elders to know about it. Elders should respect the opinion of a child considering his or her age and maturity of intelligence.

- Children can understand the difference between a good and a bad from the age of 5 or 6 years. Children have rights to express their opinions about family and social matters. Such as – children can give their opinions in making a budget for the family, planning a menu, going out for spending holidays, purchasing goods etc. In this case, the family should give impor tance to their opinions also.
- Children have rights to mix with other children and to be included in a group or to make group legally. For example, playing in a group, going out for a pleasure trip, getting involved in any development work. However, children must take the permission of their parents and teachers for doing any such work. On the other hand, a proper guidance of parents and teachers will help the children to take right decision.



A child is expressing his opinion

Lesson 4 – It is Prohibited to Make a Child Separated Against His or Her Desire

It is prohibited to make a child separated against his or her desire- Every child has the right to live with his parents. If a child becomes separated for any reason from his parents he or she will get the following protections:

- If a child is separated from a parent or both the parents he has the right to communicate with both of them.
- Government will take necessary measures to protect child rights when a child is under a special circumstance, e.g., when a child loses his or her

family due to the death of his parents, separation of his parents; when a child is lost from the family.

- To find out the parents of a child if he or she is lost and to send back the child to his or her parents. Otherwise, the government will take the charge to look after the child and provide protection for him or her. The chief responsibility of a government is to help and co-operate the organizations who work for the rights and protection for abandoned and shelter less children.

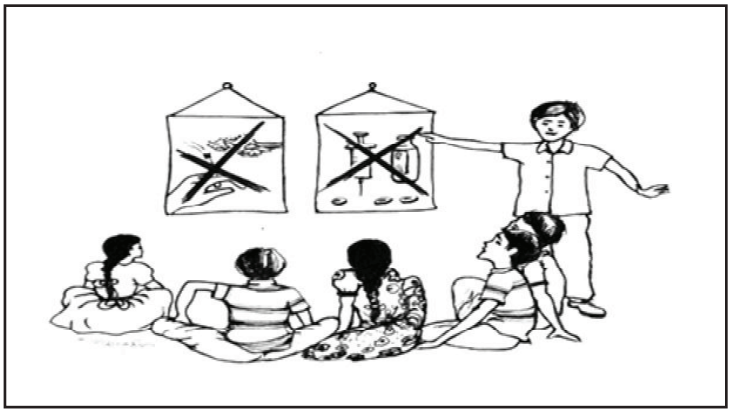
Keeping a child free from taking drugs –The children have the rights to get protection from drugs. It is necessary to stop engaging the children in producing and trafficking these drugs. However, we all need to be aware of this. There is a tendency among children to imitate. Curiosity, spending long time with peers for gossiping, mental stress – all these primarily influence to take drugs. Drug addiction destroys all the potentialities of children. Drugs are the chemical substances that create addiction, causes a disorder in the activities of brain, and damage our memories. This is why it is necessary to know the harmful effect of taking drug. The harmful effects of taking drugs are—

- The drugs damage the mental health of a person. As a result, the ability to work and study is decreased.
- A drug addicted person behaves arrogantly with family members. As a result, peace of a family is destroyed.
- Drugs destroy the nerve cells of a brain. An addicted person has less affection, love and respect for others.
- Taking of drugs spoils money. A drug addicted person suffers from different diseases and the treatment of these diseases requires a lot of money. The family of an addicted person faces problem to spend a large amount of money for the treatment of diseases. Thus, taking of drugs is harmful for our physical and mental health. It also creates financial problems in a family. This is why a person must give up this bad habit.

One should follow the rules given below to stay away from drugs and become protected –

- Do not go to the places where drugs are available.
- Do not make friendship with those who are drug addicted.

- Do not spend a long time with gossiping with any friend in a shop of your neighborhood.
- Do not take any tablet or any unknown food if any friend, an acquainted person gives that to you and says that it will give you extra strength and revitalization. Try to avoid the offer for taking these foods or tablets skillfully. Spend your leisure time in doing some productive and creative activities, e.g., playing, singing songs, reading story books, drawing, sewing, gardening etc.



Do not take drugs

Task - Make a list of rights which our children cannot get according to the declaration of the United Nations (UN). What are the ways to achieve those rights?

Exercise

Multiple Choice Questions

1. Which one is a right to live your life?

a. to know the information
b. to speak with freedom
c. to live a standard life
d. to get a healthy environment

Read the stem below and answer to the question number 2 and 3

On the way of going to the school from home Turzo often sees one man. Sometimes the man gives him chocolate. One day he took Turzo far away saying that they were going to a park and he handed over Turzo to a stranger.

2. Of which situation has Turzo become a victim?

a. showing fear
b. discrimination
c. fraudulence
d. negligence

3. According to the description in the stem what may happen to Turzo?

i. he may become a victim of child trafficking.
ii. he may become involved with juvenile delinquencies.
iii. kidnappers may demand a ransom for his release.

Which one of the following is correct?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii and iii

Creative Questions

Rana is 12 years old. He reads in class V and is a good student. His ricksha puller father cannot work properly as he has been sick for a long time. In this circumstance, his parents have stopped Rana's education and has sent him to a nearby garments factory to work there.

a. Which is the most widely expected human right?
b. Why most of the children of Bangladesh are deprived of a good protection according to the declaration?
c. Which right has Rana been deprived of? Explain.
d. To what extent is Abdul Malek's decision justified according to the declaration of United Nations ? Analyze it.

Short-Answer Questions

1. What is child labor?
2. Why is child trafficking more common in Bangladesh?
3. What does separation against the will of a child mean?

Chapter Seven
Disabled Children

We sometimes see some children around us who are not like an average kid. Their physical appearance is different and their behavior is a bit disturbed and slower than usual. Some of them do not have a clear vision, some have problems in walking and movement, some have trouble to understand others and some act much younger than his or her actual age. These children with different sorts of disabilities are called disabled children or children with impairment. They are also called child with special needs, because they need special care and attention for their growth and development. We must have proper understanding and knowledge about these children to help them live a better life. For this 3rd December is observed as the "World Autism Day".

Some children are born with a disability and some become disabled after birth due to an accident or malnutrition or sever illness. According to the World Health Organization (WHO) 10% of the world population are disabled. In that respect 1.5 crore people of our country are disabled. In a developing country like ours the number could be even higher.

Lesons 1-Type of Disabilities

Disabilities can be of many types. For Example: physical disability, visual disability, hearing disability, mental disability etc.

Physical disability or impairment

People who have incomplete or premature limbs, paralyzed limbs, deformed body construction, impairment in any parts of the body that creates problem in normal living are known as the physically disabled. For instance, any deficiency in the construction of the leg or the hand will create problem in everyday living. If the child does not have any



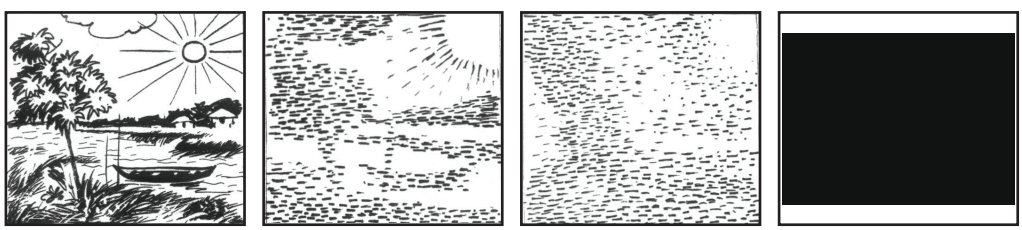
Physical disability

mental or intellectual impairment, a physically disabled child can study in a normal school. However, for the physical impairment they have to use instruments, e.g., crutch, wheelchair, walker etc, to help them move around easily. In this sort of cases if there are ramps (slop like structure in the place of stairs) instead of stairs it would be easier for the children to move around.

Visual disability or impairment

People who cannot see or have some sort of vision impairment that hinders their regular and necessary works in life have visual disability. The visually disabled have trouble with eye sight. So their regular movements and everyday activities become slow. Their impairment makes them depended on others. There are different levels of visual impairment, such as, 'low visual impairment' or 'partially sighted'.

Children with low visual impairment can see nothing but darkness or they can track the path of bright light. They are like regular children in solving mathematical problems, understanding the concept of number and learning vocabulary. They learn about objects arid their name by touching it. Those who are visually impaired from birth do not recognize themselves as any different from regular people. But those who lose their eye sight in later years or after they are grown enough cannot accept their impairment easily. The partially sighted children cannot see things in the distance. Although they have a blur vision of the things near to them, they have trouble with everyday living. The visually impaired have a special kind of education system in which they learn; it's called the 'Braille system'. Braille is a tactile writing system where the visually impaired children learn about letters and numbers. The characters in Braille are small rectangular blocks and raised dots.



The vision of a child with normal eyesight

The vision that a partially sighted child has

low visual impairment can track the path of bright light

A child with total visual impairment can see nothing but darkness

Hearing disability or impairment- Hearing disability or impairment or difficult to hearing or deafness refers to conditions in which individuals are fully or partially unable to detect or perceive at least some frequencies of sound and speech of others. They are often given names like deaf, mute, dumb, dummy etc. A regular child will first listen to sound and speech, then be able to talk. But, as a deaf child or a hearing impaired child cannot hear sounds, they do not learn to speak. If a child is born with hearing impairment or a child has this impairment before he or she learns to speak, they never develop a linguistic system or normal speech. Hearing loss can be advanced or less severe. If they have less severe hearing loss, the child can hear loud sounds and can understand when spoken loudly. However if the hearing loss is advanced, they cannot hear anything at all. They use sign language instead of speaking. Most of the time, they suffer from depression, because people often cannot understand them.

Lesson 2- Mental or Intellectual Disability

The mentally disabled or the intellectually impaired children show lower intellectual level than normal, as a result they do not behave like the children of the same age. This sort of disability is detected when the child grows up. There are different levels of intellectual disabilities. For instance: mild, moderate, severe or profound.

Mild mental disability: These people have an intellect of an 8 to 11 years old. As a result, even if the child becomes an adult, he or she will only be able to achieve the intellect of an 11 years old. They can be made self- dependent by careful training and special education.

Moderate mental disability: These people have an intellect of a 6 to 8 years old child. So an eighteen year old or an older person suffering from this ability behaves like a 6 to 8 year old child. They may have problem with speech or some form of physical disability; for instance, mispronunciation or child-like language. If they are trained they may be able to learn something. The basic goal of this sort of training is to minimize their dependency on other. They are taught to do jobs that demand physical labor, e.g. making packets, sealing items, bakery jobs etc.

Severe or profound mental disability: These people have an IQ of 5 years old or less. They are dependent on others for feeding, maintaining hygiene and for using the toilet. They have many sorts of behavioral problems. They must

always be under the care of someone. Through special care and training they can build up the habit of performing everyday chores.

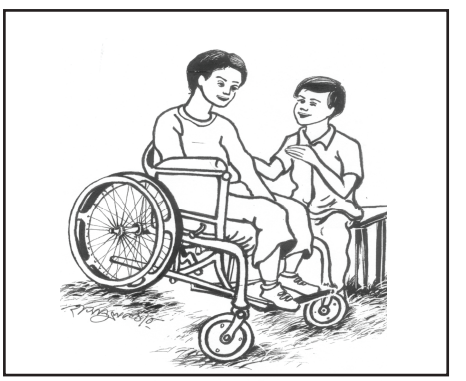


A child with mental and speech impairment

In our society, the intellectually disabled are thought to be mad or insane. However in reality, intellectual disability is not a psychological disease. It is a mental state or inability. This sort of inability cannot be cured through medicine. Yet irrespective of the level of the disability, with proper care they behave in the best of their abilities. Similarly with the lack of proper care they cannot develop enough and their behavior becomes worse.

Furthermore, people suffering from numerous impairments have multiple disabilities. For example: physical impairment and blindness, hearing and speech impairment, intellect and vision impairment etc.

If the level of disability is severe, it is easily diagnosed. These types of disables are dependent on others for feeding and using the toilet and cannot move about without special equipment. Mild and moderate disability is hard to detect. The knowledge of the normal developmental stages of a child can easily help us to identify children with disabilities. The disabled child has also the basic rights like an average child. They need love, necessary food, special care and early stimulation.

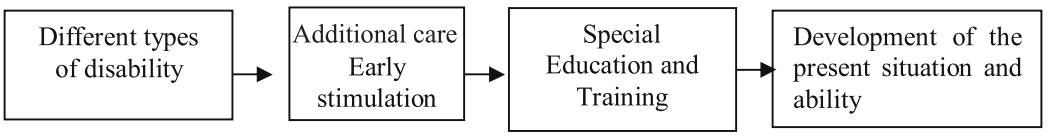


Sometimes children with disability need some special equipment for their help

You must have questions in your mind about early stimulation. What is early stimulation? By stimulation we mean to make a child aware of his or her surrounding, to help the child see and interact with the surrounding and to create an environment for the child to actively play and participate in it. This can be done by giving more time to the child, talking to the child, singing songs, playing, working with the child and last but not the least loving the child. To start this stimulation from infancy is known as early stimulation.

Early stimulation is important for a child's physical and mental development.

The average children can easily receive stimulation by interacting with the environment around it. But for a disabled child it is difficult to perceive and understand the world surrounding him or her. So they need extra care, special education and training. Our conventional education system is made suitable for the average children. If a disabled child is admitted into a regular school, they will not be able to cope with the education. They need special education according to their needs. The earlier the child receives the stimulation the better he/she gets chances to develop his or her ability and behavior.



Task 1- Write about the type of disability of a person you know.

Task 2- Write about the early stimulation that the disabled child is given and read your answer aloud to the class.

Lesson 3- Responsibility of the Family Towards the Disabled Child

Let us first find out the problems a family of the disabled child faces before we talk about the responsibility of the family towards the child.

Problem 1

When the family first learns about the abnormality of the child, they go to the doctors. Parents usually cannot accept the news that the doctors give about their child's impairment. They then consult other doctors for second and third opinions. By this time they are ready to accept the news. But it is already too late. So it delays the child's early stimulation and special care. Parents often have questions like 'when will my child recover', 'will he/she ever be able to speak', 'when he/she will behave according to his/her age' etc. They believe that disability can also be cured like regular diseases through treatment and medicine. It is quite difficult to make the parents realize that their child has to bear the disability for the whole life.

Problem 2

The mother of a disabled child often suffers from heart ache and depression. In

many cases the mother is held responsible for giving birth to a disabled child. The mother has to take a lot of responsibilities in taking care of the child and often the mother loses the interest to do so.

Problem 3

The treatment of disabled children is very expensive, time consuming, laborious and demands patience. The family goes through a lot of struggle to maintain these things.

Problem 4

In many cases the disabled child behaves abnormally. They are hyperactive, they break things, do the same thing over and over again. This sort of behavior demands full time attention. So when the parents go out with the children to their neighbors or their relatives they feel embarrassed by these behaviors.

So far you have learned about some of the problems a family of disabled child may face. In the previous lesson you have learned about congenial family environment for the development of a child. The disabled child also needs a congenial family environment and special care.

So the followings are some responsibilities we have towards the disabled child:

- The disabled children must be given the same love and affection like the normal children. If the child receives love and affection from his or her parents and siblings, then the neighbors and the relatives will also love the child equally.
- The child must be given special care and training according to the type of disability as soon as it is diagnosed. The aim of this training is to help the child to perform everyday works and to give her education according to her ability.
- Special care, treatment facilities and helpful equipment must be arranged for the child. For example, providing hearing aid for the partial hearing impaired; glasses and white cane for the vision impaired; crutch, wheel chair, walking stick, specially designed chairs, shoes for the physically impaired etc.

- The child must be taken out publicly in any occasion with the rest of the family members. For example, picnic, marriage ceremonies, parks, fairs etc. In these places the child can get the scope to interact with the outside world by being introduced with the rest of the people, participating in conversations, and by being briefed about all the new things that they encounter. Often the child is locked up in his or her room when guests come to their homes. They are not brought out to be introduced to guests. This sort of behavior must be prohibited. As a result her mental health or growth is hampered.
- The disabled child is more prone to malnutrition than the average child. Again in some situations, children become disabled due to malnutrition. For example- vision impairment for the deficiency of vitamin A. So both the average and the disabled child must be given a balanced diet.
- The rest of the family members includ ing the parents must behave and help out the disabled child in taking care of him or her. This will help the parents to take some rest and relax and pay better attention to the disabled child.



A disable child needs love and special care

Task - Make a chronological list of the responsibilities of a family towards the disabled child.

Lesson 4- Responsibility of the Society Towards the Disabled Child

Who constitutes the society? Our society constitutes of us and everybody around us. The disabled children are also a part of the society but they are very much neglected in our society. Some instances of the negligence they suffer are given below:

- A disabled child is often become the victim of rebuke and scorn as they do not understand things properly. They are often ridiculed and called as mad, mute, retarded, daft head etc.
- The children of the same age bully them openly. They are not included in any games and no one wants to be their friends
- The relatives often exclude them from family functions and get-togethers.
- They cannot talk about their illness or express the problems they are having and so, often the treatment becomes a lengthy process resulting in negligence.
- If the teachers, trainers and the staff of the special needs institutions for the disabled are not sympathetic and cordial, they lack proper care. For example: talking to them in a loud and rude voice, lack of attention to the children etc are behaviors that show negligence.

What responsibilities do we have to facilitate the disabled child?

We must arrange proper training and special education for the disabled child according to their type of disability. For instance- teach Braille system to the blind, sign language to the hearing impaired and speech impaired children and train the intellectual impaired children to do everyday chores of life. Apart from that we can also arrange for them vocational training to do works that will allow them to earn money. The aim of this sort of training is to make these children self-dependent. However these trainings can only be successful if the teachers and the trainers are dedicated and sympathetic towards them. Their sympathetic behavior, tender voice, affectionate approach and patience motivate the children with special needs to finish the training and come to school.

If you are a relative, neighbor, classmate or of the same age, you can also play an important role to motivate these children. You can do the following to help these children out

- In any social function or program you can give him/her company or take the responsibility of taking care of him/her.
- You can arrange sports and games for these children based on the types of their disabilities. For example: arrangement of story telling sessions for blind and vision impaired children; play chess with the hearing impaired; sing songs, draw pictures and painting with the intellectually impaired etc.

- If you have any disable child in your community who has financial trouble or is very poor you can help out to raise money for them or give financial aid.
- Little children are afraid of the disabled child so you can help them to recover them from their fear and spread awareness. If you can explain the disability of the children to the normal children, they can become close friends to the disabled and assist them in many ways.
- You can have a positive view about the disabled and help them out in any way necessary.

Now let us read a story of how a disabled child became self-dependent with the help of a family and a society.

There was a little girl named Kajol who was born with visual impairment. When her parents first realized that their daughter was vision impaired they became depressed. The grandmother of Kajol who gradually lost her vision five years ago said, "I am also a vision impaired. But I still can understand everything around me by touching and hearing. You must teach her to do the same." With the help of the nearest support center, they began her early stimulation by introducing her to her surrounding through smell, touch, feel and sound. Her grandmother used to talk to her and sang songs to her a lot. She was taught to walk by her sense of touch. She was regularly taken to the playing ground. She could use the bathroom on her own from three years of age. She began to go to a special school when she was six years old. The neighbor's children would come to take her to school on their way. When the people saw the children they could not understand who the vision impaired was.

We must help out the family of the disabled children in every possible way. Through our help and support we must let the family know that we are always beside the disabled child. The love and affection of a society can help the children to go forward in life. It would make their world easier and beautiful. The children that have delayed development can become able and normal with special care, love and support of the family and the society.



Neighbors cannot understand who is visually impaired

Task 1- How relatives, neighbors and teachers can assist a family having trouble with the disabled child? Discuss.

Exercise

Multiple Choice Questions

1. Which day is observed as the "World Autism Day"?

a. 2nd December
b. 3rd December
c. 4th December
d. 5th December

2. A loving family can help a child to-

i. proper development
ii. reduce disability
iii. become self-dependent

Which of the following is correct?

a. i and ii b. i and iii c. ii and iii d. i.ii and iii

Read the following stem and answer the question number 3 and 4

Chayan studies in class two. Listening to his teacher he can write correctly in the notebook. But he cannot write following the board. As a result he cannot complete the class work in time. This would make his teacher annoyed at Chayan. Hence Chayan became withdrawn. The class teacher noticed this and informed Chanyan's parents. They immediately took him to the doctors.

3. Chayan is-

a. hearing impaired
b. speech impaired
c. intellectually impaired
d. visually impaired

4. Which of the following steps could have saved Chayan from this situation-

i. help from the family.

ii. help from the teachers.

iii. timely treatment.

Which of the following is correct?

a. i and ii
b. ii and iii
c. i and iii
d. i, ii and iii

Creative Questions:

Pranti and Pratoy are brothers and sisters. Protoy is two years old and Pranti is a teenager. Pranti usually behaves like Pratoy and often laughs without any reason. Her family members keep her busy with songs, painting and drawing pictures and telling her stories. Everyone in the family listens to her attentively and her mother takes care of her with a lot of love and patience.

a. Who constitutes the society?
b. Why is the early stimulation necessary?
c. What disability can you notice in Pranti? Explain.
d. 'The behavior of all the family members of Pranti is a great support for her mental development.' - analyze the statement.

Short-Answer Questions

1. Who is considered visually impaired?
2. What is a hearing impairment?
3. Why should children with disabilities not be neglected?

Section – C

Food, Nutrition and Health

We have attained some primary knowledge about food and nutrition in class VI. In this section we will know about the important sources and functions of six nutrients of food. Besides, we will know the importance of digestion and absorption, basic food groups, use of basic food groups in planning a balanced diet, planning diet for different diseases. It is very important for us to know about the ways of preserving food to prevent them from decay.

After studying this section we will be able–

- To explain the classification, sources and functions of foods and nutrients;
- To explain the necessity of digestion and absorption of food;
- To describe the balanced diet and basic food groups;
- To explain the importance of the measurement in serving food;
- To explain the diet of different diseases and the importance of taking diet;
- To describe the necessity and process of food preservation;
- To explain the reasons for decay of foods and classify the foods according to their perishable nature.

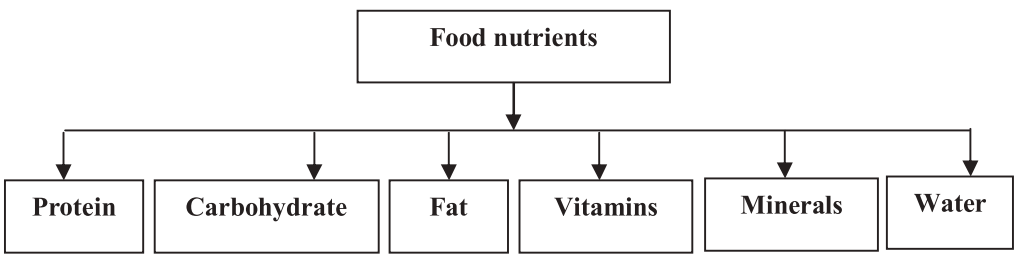
Chapter Eight

Nutrients of Food, Digestion and Absorption

Kinds of Food Nutrients, Sources and Functions

We know that, nutrition consists of different bio-chemical components. Our body receives these components when foods are broken into small units. These components provide nutrition to our body, so these are called nutrients.

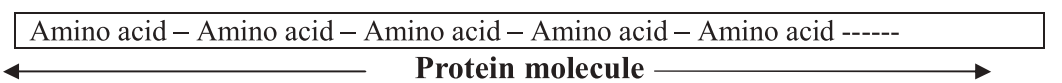
There are six kinds of food nutrients. These are shown in the table below-



Now we will know about the nutrients mentioned above.

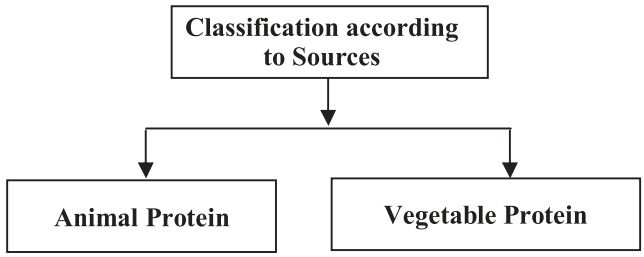
Lesson 1- Protein

Protein is one of the most the existence of any living being without protein. This is why protein is considered as the chief nutrient of all living beings. Protein consists of carbon, hydrogen, oxygen and nitrogen. If the protein is broken into small parts we get amino acid first. Then other basic substances like carbon, hydrogen etc. are obtained. It means many amino acids are joined together to create a protein molecule. A graph of a protein molecule is shown below. important among six nutrients of food. It is not possible to think



Classification of Protein

According to the source Protein is classified into two types.



1. Animal Protein – The protein which is obtained from animals is called animal protein. For example: fish, meat, egg, milk etc. This animal protein is called primary sources of protein.

2. Vegetable protein – The protein that we get from plant is termed as vegetable protein. For example: lentils, nuts, soya bean, seeds of bean etc. This vegetable protein is called secondary sources of protein.

Sources of protein



Foods as a sources of protein

20% to 25% of total calorie that we need daily should be taken from protein. There should be small amount of animal protein along with vegetable protein in our daily meal.

Functions of protein

1. Builds body and helps its growth - Bone, muscle, different parts of the body, starting from blood cell to teeth, hair, nail of our body-all are made of protein. Protein helps promote physical growth of children.

2. Protects the body from decay- The cells of our body frequently get destroyed. Protein fulfils this loss of the body and builds new cells. Protein plays a role in healing wounds.

3. Produces energy- The energy of 4 kilo calories is produced from the protein of 1 gram. Protein produces calories when there are deficiencies of fat and carbohydrate in a body.

4. Prevents diseases- Protein plays an important role inbuilding antibodies that help prevent diseases.

5. Develops our brain - Protein is indispensable for the development of our brain.

Effects of protein deficiency in a body

- The normal growth of children is obstructed.
- Deficiency of protein for a long time causes the disease like Kwashiorkor.
- Body's immunity power decreases.
- It reduces our intellectual capacity.

Task 1- Write the names of protein-rich foods we eat everyday.

Task 2- Write down the functions of protein in our body.

Lesson 2 – Carbohydrate

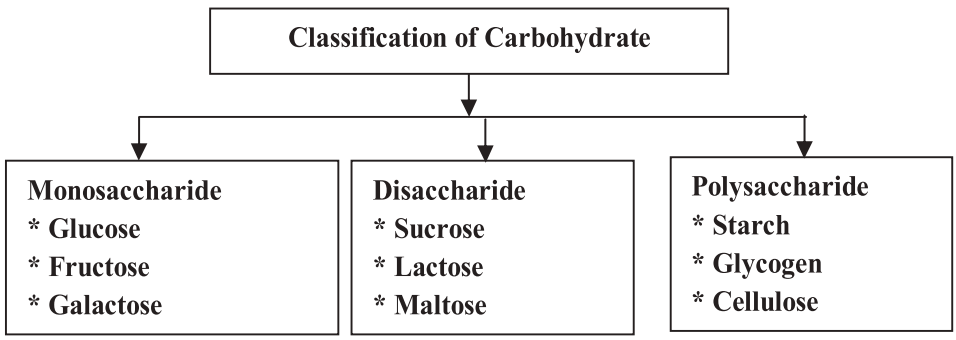
Carbohydrate is the highest in quantity among different nutrients of foods we eat everyday . Carbohydrate plays the most important role in supplying heat and energy to our body. All carbohydrates are made up of three basic components – carbon, hydrogen and oxygen.

Classification of carbohydrate –If carbohydrate is broken, the simple sugar mole ule is found. Based on simple sugar molecule, carbohydrate is divided into three categories, such as –

1) Monosaccharide– Carbohydrate made of only one sugar molecule is called monosaccharide e.g., glucose, fructose, galactose.

2) Disaccharide– Carbohydrate made of two monosaccharide or two simple sugar molecules is called disaccharide, e.g., sucrose, lactose and maltose.

3) Polysaccharide- When carbohydrate is broken and many units of monosaccharide are found, they are called polysaccharide, e.g., starch, glycogen and cellulose.

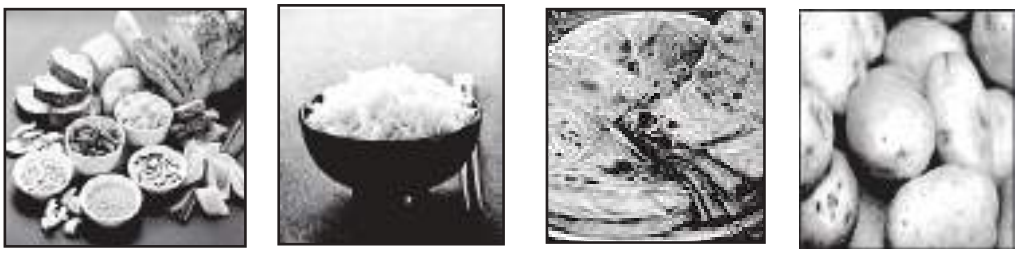


Sources of carbohydrate

Foods containing carbohydrate listed from the highest to the lowest are given below –

1) Sugar, molasses, sugar-candy, candy, chocolate, sweetmeats.
2) *Sagu*, corn flour.
3) Rice, barley, wheat, maize.
4) Potato.
5) Different kinds of dry fruits, e.g. , dates, raisin, etc.
6) Different kinds of lentils, soya bean, nuts.
7) Fresh fruits, grapes, banana, apple, mango, jackfruit, pineapple etc.

50% to 60% of total calorie that we need everyday should be taken from the food containing carbohydrate.



Different kinds of food containing carbohydrate

Functions of carbohydrate

1. The main function of carbohydrate is to supply heat or energy to the body. So it is called fuel food. Energy with 4 kilocalories is produced from 1 gram of carbohydrate.
2. Cellulose, a kind of carbohydrate, helps relieve constipation.
3. Glucose, a kind of carbohydrate, plays an important role as the only fuel for the brain to work.

Effects of the deficiency of carbohydrate in a body

There is a deficiency of calories in the body. As a result, the body becomes weak and the energy for doing any normal work is decreased.

Task - Why will you eat food containing carbohydrate? Explain

Lesson 3-Fat

Fat produces the highest amount of calorie among the six nutrients of food. We get fat in almost all natural foods. Fat is insoluble in water and is lighter in weight than water.

Classification of fat

a) Classification of fat according to its characteristics – According to the characteristics of fat it is divided into two types, such as, i. solid fat and ii. liquid fat.

1. Solid fat – The fat which remains hard or solid under normal heat and pressure is called solid fat. For example: animal fat, butter etc.

2. Liquid fat – The fat that remains liquid under normal heat and pressure is called liquid fat. For example: soya bean oil, mustard oil etc.

b) Classification of fat according to its source –Fat is divided into two groups according to its source : i. Vegetable fat and ii. Animal fat.

1. Vegetable Fat

The fat that we get from plants is called vegetable fat. They are coconut oil, mustard oil etc.

2. Animal Fat

The fat that we get from animals is called animal fat, such as fat from cow, *ghee*, butter, fish oil etc.

Sources of food

1. Primary source – The amount of fat is about 90% to 100% in a primary source, e.g., soya bean oil, *ghee*, butter, mustard oil, cod liver oil, oil of shark etc.

2. Secondary source – The amount of fat is about 40% to 50%, e.g., different kinds of nuts, such as – ground nut, cashew nut, walnut, pistachio, coconut etc.

3. Other sources – We can get about 15% to 20% fat in from other sources, e.g., milk, egg, fish, meat, liver etc.

We should get 20% to 25% of our daily calorie intake from fat. If fat is taken more than the requirement, calorie intake will be more than the body needs. As a result, the weight of body will be increased quickly. This is why fat should not be taken more than it is needed for the body.



Different types of food containing fat

Functions of fat

1. The main function of fat is to supply heat and energy to body. An energy of 9 kilocalorie is produced from 1 gram of fat.
2. It is saved as a source of energy in the body.
3. Fat plays an important role as a primary nutrient of cell wall.
4. It helps to dissolve vitamin A, D, E, and K and makes them suitable to be used in the body.
5. It is very essential for the preservation of internal organs of the body.
6. It prevents the waste of heat from the body and keeps the body warm.
7. Fat protects the body from disease.
8. Fat enhances the taste of food.

Effects of the deficiency of fat in a body

- It creates deficiency of calorie in the body.
- There is deficiency of fat soluble vitamins.
- We may have skin disease.

Task 1- Make a list of foods that you take everyday containing fat.

Task 2- What are the functions of the food containing fat in your body?

Lesson 4 – Vitamins

Vitamins are different kinds of complex bio-chemical compounds which exist in foods. A small amount of vitamin is needed for every living being. Nevertheless, with the absence of vitamins the production of energy is hindered. Normal growth and proper development of a body become impossible and different kinds of deficiency related diseases are seen in a body due to the lack or absence of these compounds. Although, the demand of these essential nutrients is very small, their functions cannot be considered insignificant.

Several functions, e.g., building the body, healing from a decay, growth of body, producing heat and energy, controlling the internal activities of the body – all these cannot be done properly without vitamins.

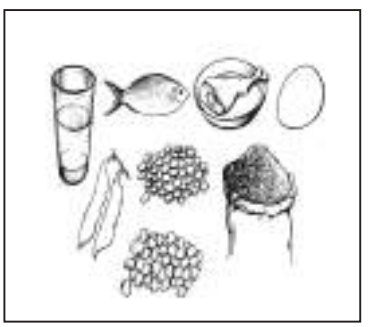
Classification of vitamins

Vitamins are divided into two categories based on their solubility, such as –

1. **Fat soluble vitamins-** The vitamins which are soluble in fat or fatty acid but not soluble in water are called fat soluble vitamins. The number of these vitamins is 4, e.g., A, D, E and K.
2. **Water soluble vitamins-** The vitamins which are soluble in water but not soluble in fat are called water soluble vitamins. Water soluble vitamins are of two types- vitamin B complex and vitamin C.

Vitamin B complex – Vitamin B is not a single vitamin. Vitamin B complex consists of 15 types of vitamins together. Among the most important vitamins are thiamin or B_1 Roboflabin or B2 , Folic Acid.

Sources of Vitamins





Food containing vitamins

- **Animal source –** Sea fish, egg yolk, meat, cheese, liver, milk and milk products.
- **Vegetable Source –** Husked brown rice, lentils, sweet potato, different kinds of leafy vegetable, coriander leaf, lettuce, other vegetables – okra, mushroom, papaya, bottle gourd, eggplants, tomato, beet, turnip, broccoli, cauliflower, cabbage, bean, kidney bean, radish, vegetable with bitter taste, wheat sprouts, bean sprouts, peas, pumpkin, carrot, green jackfruit, different kinds of fruits, e.g., *amloki*, guava, hog-plum, custard apple, *sofeda*, fig, jujube, pomelo, star apple, black berry, wood apple, lemon, tomato, orange, mango, papaya, jackfruit, etc.

Functions of vitamins

- Vitamins increase the body's ability to protect disease and keep the body healthy, strong and active.
- Keep the working ability of the nervous system and brain well.
- Help keep different parts of the body, eyes and skin healthy.
- Help build blood cells.
- Help use different kinds of nutrients properly to maintain health and work skill.

Deficiency diseases

Different kinds of deficiency related diseases are seen due to the lack of different kinds of vitamins. Vitamin B- Complex deficiency can lead to disease such as-beriberi, sore mouth, crack on the corners of lips, pellagra, diarrhoea, skin disease and mental depression, anemia etc.

Deficiency diseases of vitamin C

A deficiency of vitamin C causes scurvy (swelling of the gum of teeth and the gum becomes spongy and there is bleeding on the gum, resistance power for disease decreases)

Deficiency diseases of fat soluble vitamins

Fat soluble vitamins		Deficiency Diseases or Problems
Vitamin A	→	Night blindness (cannot see in dim light at night)
Vitamin D	→	Children suffer from rickets (bent leg bone and big skull), elderly people suffer from Osteomalasia (bone becomes soft, fragile and are bent)
Vitamin E	→	Reproductive power decreases.
Vitamin K	→	Blood does not clot.

Task - Write down the names of sources of different kinds of vitamins.

Lesson 5 – Minerals

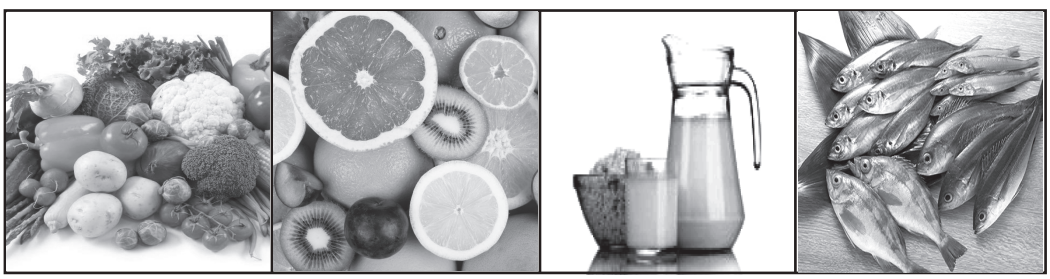
Minerals come after vitamins in building the body. About 96% of the components of a body are bio components and about 4% of the components are non-bio components or minerals. There are about 24 kinds of minerals in the body. Minerals like calcium, phosphorus, potassium, sodium, chlorine, magnesium, iron, manganese, copper, iodine, zinc, aluminum, nickel etc. play important roles in our body. We have different kinds of deficiency diseases due to the scarcity of minerals for a long time. We get these necessary minerals from food.

Classification of minerals- Minerals are divided into two groups based on their availability in our body, such as –

1. Principal Minerals-Among the organic substances calcium, phosphorus, sodium, potassium, magnesium and sulfur exist in our body with a standard amount. These are called the principal minerals.

2. Trace Minerals – A small amount of iron, iodine, chlorine, zinc, manganese, copper, cobalt, molybdenum etc. take part in the nutritional activities of a body. These radical elements are called trace elements. Although a small amount of these minerals are needed for our body, their functions are very important.

Different sources of minerals



Food containing minerals

Animal source – Sea fish, small fish with bone, egg yolk, meat, cheese, milk and milk products etc.

Vegetable source – Different kinds of green vegetables and fruits, husked brown rice, lentils, sweet potato etc.

Functions of minerals

It is very essential to have the foods containing minerals in our daily food menu. These essential substances play important roles for the development of a body. The general functions of minerals are given below:

- Minerals build solid cellular tissues, e.g., bone and teeth;
- Build blood cells;
- Minerals help produce hormone;
- Control the internal functions of a body.

Effects of deficiency of different kinds of minerals in a body

Due to the lack of minerals different kinds of deficiency symptoms are seen in the body, such as –

Minerals		**Deficiency Diseases**
Calcium	→	Children suffer from Rickets, building of teeth and bone is hindered and the aged people suffer form osteomalasia.
Sodium	→	Low blood pressure and weakness of the muscles.
Potassium	→	Weakness of the muscles
Iodine	→	Goiter
Iron	→	Anemia
Zinc	→	Growth of children is prevented.

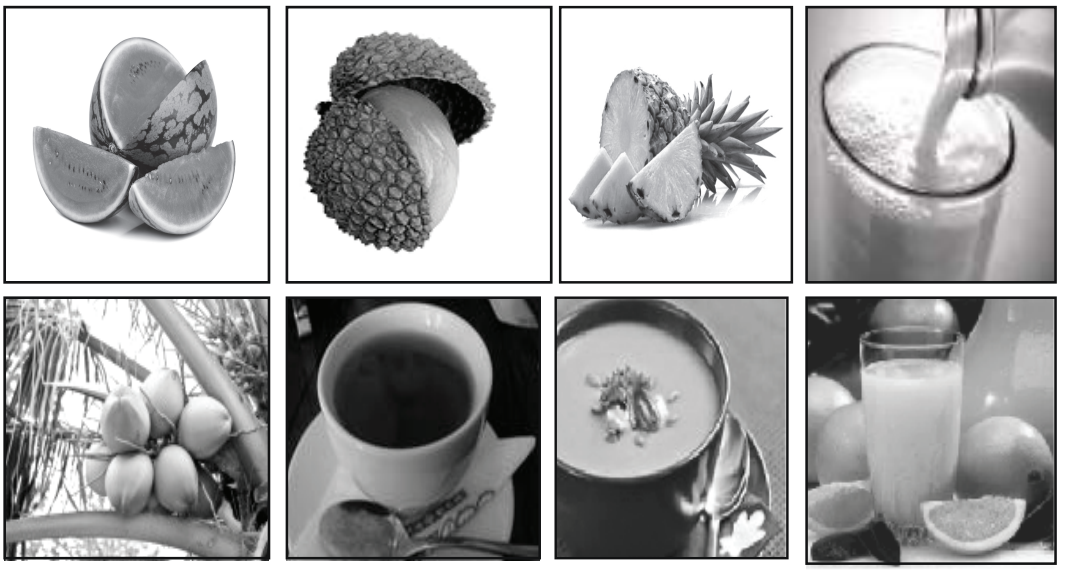
Task - Why is it necessary to eat food containing minerals? Describe.

Lesson 6 – Water



Water is essential for life. Man can live for several weeks without eating any food. But a man cannot live a single day without drinking water. About 55% to 75% of a human body is made up of water. Water remains in all tissues of the body. Everyday water comes out of our body through stool, urine, lungs and skin, and a human body cannot store water.

This is why we need to drink pure and clean water everyday. The amount of water to be drunk depends on the kind of work a person does and the kind of food he or she eats. It is important to drink the same amount of water which comes out of the body every day. We get about 1 liter of water from the foods that we eat. The rest necessary amount of water for a body should the fulfilled by taking fluid or liquid. Everyday about 2.5 to 3 liters of water comes out of a person's body. More water is essential during very hot weather and extreme physical labour. About 1.5 liter of water comes out of a person's body in every 3 to 4 hours who is traveling by plane.



Foods as a source of water

Source of water – The main sources of water are drinking water, coconut water, milk, fruit juice, soup etc. Besides these, a large amount of water remains in different types of juicy fruits, e.g., water melon, lichi, mango etc.

Functions of water-

- Water is necessary for maintaining the normal functions of each cell of a body.
- Water plays an important role for the excretion of waste materials from the body.
- Water has an important role for maintaining the normal temperature of the body.
- Water helps digest food and prevents constipation.
- Water helps transport the nutrients to the cells.

Dehydration means a significant amount of decrease of water in a body. The symptoms of dehydration are – headache, weakness, dryness of lips, cracked lips, deep colour of urine.

The causes of dehydration

- When a person sweats a lot due to extreme hot weather, humidity, exercise, or fever etc.
- When a person doesnot drink adequate amount of water.
- When a person suffers from diarrhoea
- When a person vomits extremely.

When is the demand of water in a body increased?- A person needs to drink 6 to 8 glasses of water every day. But this requirement of water increases for the following reasons –

- When a person sweats a lot in an extreme hot weather;
- When a person suffers from fever;
- When a person vomits or suffers from diarrhoea;
- When a person does physical labor, plays, and takes regular exercises.

- When the intake of foods containing fiber is more.
- The demand of water is more for a lactating mother.

Task - In which conditions does the demand of water in the body increase?

Lesson 7 – Necessity of Digestion and Absorption of Food

While eating we can only see the foods but we cannot see what happens with these foods inside our body. Although we cannot see, we can feel the activities of the organs inside the body. For example, we feel hungry after 3-4 hours of eating any food. We become hungry after the digestion and the absorption of food. On the other hand, different kinds of deficiency diseases are noticed in the body if balanced diet is not taken for a few days. From all these, we can understand that after taking food some activities happen inside the body. As a result, the body gets nutrition, remains healthy, we feel hungry and once again we take food to satisfy our appetite.

Now the question is, what happens in our body after eating food and what is the consequence of that? Foods that we eat consist of different kinds of nutrients. These nutrients exist in food in a complex form. The body cannot get any nutrition from these nutrients with their original and complex form. For example, we take rice and lentils, carbohydrate, protein, vitamin and minerals etc. remain in their complex form in these foods. The foods will not provide any nutrition and not be useful for our body if the nutrients remain in their original complex form.

To become useful for the body the nutrients of rice and lentils need to be broken down into simple units and suitable for the absorption of the body. It means, carbohydrate as a nutrient of these foods will be broken into glucose while protein will be broken into amino acid. And only after this, the simple units of the nutrients will become ready for the absorption of the body and thus, the body will get nutrition. Therefore, digestion and absorption of foods are necessary to make the nutrients suitable for and acceptable to the body by converting them from their complex to simple form.

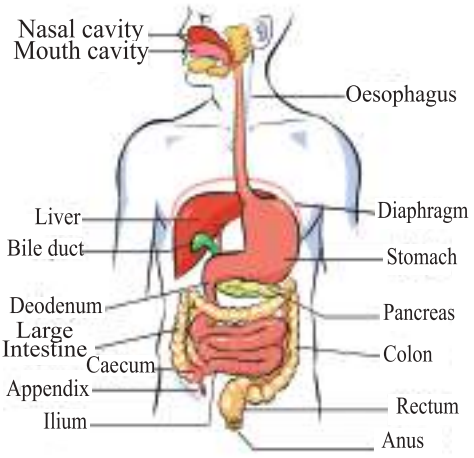


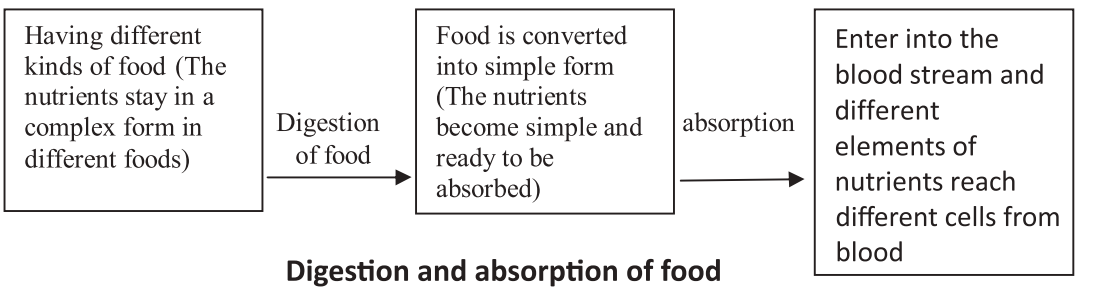
Figure: Digestive system of human

Digestion –Digestion is the conversion of the complex form of nutrients into simple form after taking food.

Absorption –After the digestion simple units of nutrients are formed. The process by which these simple units are absorbed into the blood stream is called absorption.

Digestive system –The organs of a human body that are involved in the activities of digestion and absorption are known as digestive system.

The activities of a digestive system: The nutrients that we take with foods remain in a complex form. At this stage, a body cannot absorb the nutrients and the nutrients do not come to any use of the body. Nutrients are broken and converted into simple units when the foods are digested. However, these small units of the nutrients also cannot work until they are absorbed into the body.



Digestion and absorption of food

A flow chart showing the results of digestion and absorption of food.

The flow chart above shows that digestion is necessary to convert a complex nutrient into simple one and make it ready for absorption. Again absorption is necessary for reaching the nutrients to the cells of body.

Task - Write in a flow chart the system which occurs in a day after taking food.

Exercise

Multiple Choice Questions

1. How many nutrients are present in food?

a. 5 b. 6

b. 7 d. 8

2. Which one is essential or the normal growth of a growing child?

a. carbohydrate b. protein

c. fat d. minerals

Read the following stem and answer to the question number 3 and 4

Rita is 8 years old. She likes to eat rice with vegetables only. Rita becomes tired when she plays with her friends of the same age. She has no interest in study. If she is asked to do any work by her mother, she does not want to do that. Her lack of interest in all matters makes her family anxious.

3. Which nutrient is absent in Rita's food?

a. protein b. minerals

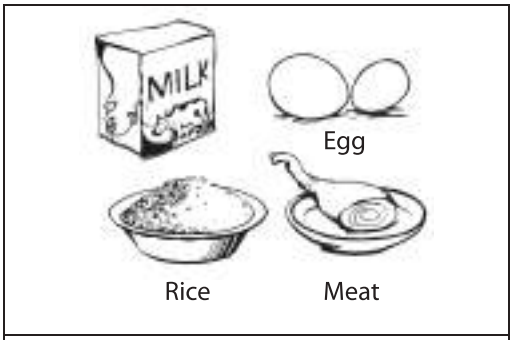
c. carbohydrate d. water

4. Which list below should be emphasised in Rita's daily meals?

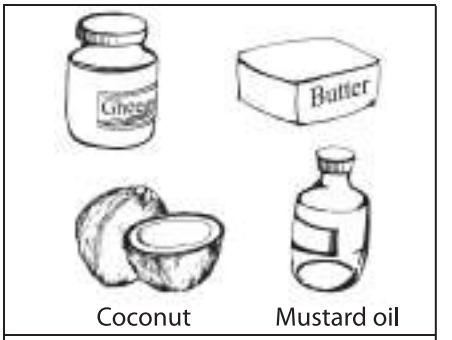
a. date palm, raisin, pineapple, banana
b. ientils, nuts, soya bean oil, seeds of bean
c. oil, ghee, butter and coconut
d. sea fish, liver, egg yolk

Creative Questions

1.



Picture-1



Picture - 2

a. What is vitamin?
b. What is the importance of digestive system?
c. What functions are done by the foods in Picture-1?
d. If the foods in Picture-2 are taken less than necessary, it may have harmful impact on human body? Do you agree? Give reasons in favour of your answer.

2. Tanha is restless in nature. She is ten years old. She has recovered from fever 2 to 3 days ago. But now she cannot study. She lies most of the time of the day in bed. Her mother gives her plenty of milk, pudding, vermicelli, liver, lentils to eat.

a. What is digestion?
b. Why does diarrhoea cause dehydration?
c. How much logical are the measures takel by Tanha's mother to regain her health? Discuss.
d. How far are the foods given by her mother useful for Tanha to recover from her present condition? Explain.

Short-Answer Questions

1. What is the role of lipids in the body?
2. How does protein work to prevent disease in the body?
3. What should be done to prevent anemia?

Chapter Nine
Basic Food Groups



Basic food groups

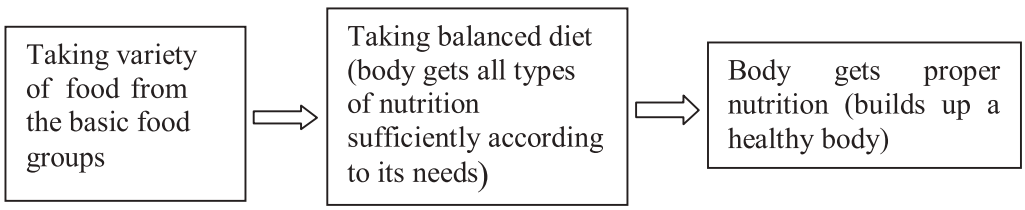
We need food to live. If we do not eat right amount of food according to the needs of our body, it can lead to various problems. For example, excessive intake of food than we need may lead to obesity. Similarly, the body will be skinny if we eat less amount of food than our need. Besides, if we take same kind of food every day, we will not like to take that food after some days. This is why our everyday food should be nutritious and delicious. We also should take proper amount of food according to the needs of our body and different kinds of food for change. Protein, Carbohydrate, Fat, Vitamins, Minerals and Water-these six nutrients need to be proportionately present in a balanced diet. They should be in our food list as per the need of our body.

The amount of these six nutrients are different in different food. Some food may contain only one nutrient while some other may have more than one nutrient. To make a balanced diet we need to select and take different types of food. This is why nutritionists have divided foods into some basic groups. Foods that are included in a group have similar amount of nutrition. It means we get almost same amount of nutrition from a certain food group. This is why we should select different kinds of food from each group to ensure variety. Besides we should take foods from all food groups. In this way we can get proper nutrition easily for our body.

Lesson 1- Definition of Basic Food Groups

We need food for nutrition and energy. It is essential to know how much food is needed for a healthy person, how much food will keep the body healthy without making it too fat or too thin, which and what amount of food will fulfill the exact demand of the body. To know all these and to plan a balanced diet food are divided into some basic groups considering the nutrients and how they work in a body. These groups are called basic food groups.

It is possible to take a balanced diet if we select food from different food groups. It also ensures proper nutrition for the body.



Necessity of basic food groups

- A balanced diet needs all six nutrients – Protein, Carbohydrate, Fat, Vitamins, Minerals and Water proportionately. Our diet will be balanced if we select food from the basic food groups.
- It will be easier for us to meet the needs of our body and to make our food nutritious if we select food from the basic food groups for our daily diet.
- This is essential to make our diet delicious and not monotonous by taking same food everyday.

Food can be made balanced, and cost and time saving too if items are chosen from the basic food groups.

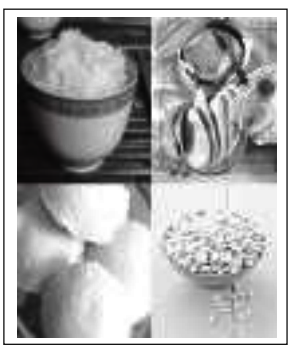
Task – What is the role of basic food groups to make a balanced diet?

Lesson 2- Classification of Basic Food Groups

In the previous lesson we have learnt about basic food groups and their necessity. In this lesson we will know about their types. We can divide our foods into five basic groups.

Name of different food in basic food group and their nutrients are given in the chart below

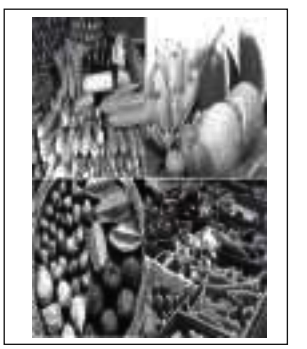
Basic Food Group	Name of Food	Nutrients got from the food
Cereal-type food (food that creates energy)	Rice, *rooti*, *shuji*, vermicelli, noodles, potato etc.	Calorie, Carbohydrate, Protein, Vitamin B_1, Vitamin B_2
Vegetable and fruit-type food (food to prevent diseases)	Different kinds of vegetables, fruits etc.	Cellulose, Vitamin-B, Vitamin-C, Carotene, Folic acid, Minerals-Calcium, Iron, Sodium, Potassium, Magnesium etc.
Fish, meat, lentil and seed-type food (food to build and prevent decay of the body)	Lentils, fish, meat, egg, milk, nut etc.	Calorie, Protein, Vitamin B_1, Vitamin B_2, Folic acid, Vitamin B_{12}, Vitamin- A, Iron, Calcium
Milk and milk products (foods essential for babies)	Milk, curd, *chhana*, *ghol*, different kind of sweets, *khir*, *payesh* etc.	Protein, Calcium, Lactose, Vitamin-A, Vitamin B_2, Vitamin B_{12}
Food comprising of fat and sweet	Oil- different kind of edible oil, *ghee*, *dalda* etc; sweets-sugar, molasses etc.	Mainly source of saturated energy or calorie and fat soluble vitamins



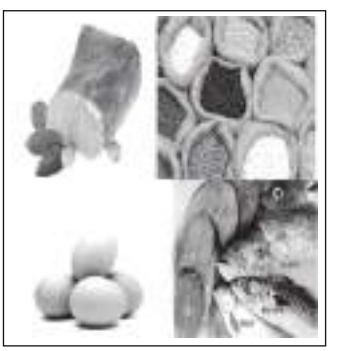
Cereal-type



Food comprising of oil or fat and sweetmeat



Vegetable and fruit-type food



Fish, meat, lentil and seed-type food



Milk and milk products

Task – Classify the foods that you ate yesterday into five basic food groups and write their names.

Lesson 3: Amount to Serve

To get nutrition according to the demand of the body and to measure the nutritive value of the food we eat everyday, we need to serve a proper amount of each group of food. The amount of food which is determined for each serving is called one serving amount of food. Every food has its particular serving amount.

1. Grain-type food : We get more than half of the total calories from grain type food among all the food that give us energy. Rice, wheat, potato give us plenty of vegetable protein as we eat these food almost in our three meals of a day.

One serving amount for grain-type food	
Name of food	**Amount**
Rice	½ Cup
Rooti	1 (middle sized)
Bread	1 slice

The amount to eat grain type foods depends on a person's hard work. Eating of these foods mostly depends on a body's demand of calorie. In each meal a person who works hard should take this food more than one serving amount.

2. Vegetables and fruit-type food : All the vegetables and fruits that we get from plants are in this group. An adult person who works normally should take vegetables and fruits 300 to 500 gram per day. For the growth of our body we must take 4 to 6 serving of these food in three meals of a day.

One serving amount for vegetables and fruits	
Name of food	**Amount**
Green (Uncooked) vegetables	50 gram
Fruits	50 gram

The minimum amount of green (uncooked) vegetables and fruits is 50 gram for each serving. Another 2 to 4 gram of serving amount should be taken from other vegetables and fruits. A hard working person should eat more than one serving food in each meal of a day.

3. Fish, meat, lentil and seed-type foods (Protein): Our everyday's demand of protein can be fulfilled if we take about 60 to 120 gram of food from this group.

One serving amount for food containing protein	
Name of food	Amount of taking
Fish (small or big)	30-50 gram
Beef or mutton	30-50 gram
Egg (hen or duck)	1
Pulses	25 gram
Peanuts	25 gram

Serving amount of the food containing protein is 30 to 60 gram. We should eat both animal and vegetable protein everyday.

It is essential to take at least one serving animal protein every day. Pregnant women, pre-school and school going children must have animal protein in their meal.

4. Milk and milk products: These foods are essential for the children. Till the age of five months of a baby breast milk is enough. Milk is not essential for adults but milk and milk products are good source of calcium. Children need 200 to 600 ml milk according to their age along with other supplementary food.

One serving amount for milk and milk products		
Name of food	Amount	
Fresh liquid milk	200 ml	1 glass
Chhana	50 gram	½ cup
Curd	100 gram	½ cup
Cheese	25 gram	2 table spoons

Demand of high protein, calcium and riboflavin of the school going children is fulfilled if they daily take minimum one to two serving amount of milk and milk products.

5. Fat and sweet group: We should take very limited amount of food consisting of fat and sweet. Too much taking of these food leads to obesity. That is why use of oil should be limited in cooking food. We should take less amount of sweetmeat.

Task – Make a list of the food that you take every day with their one serving amount.

Lesson 4 – Use of Basic Food Groups in Planning a Balanced Diet

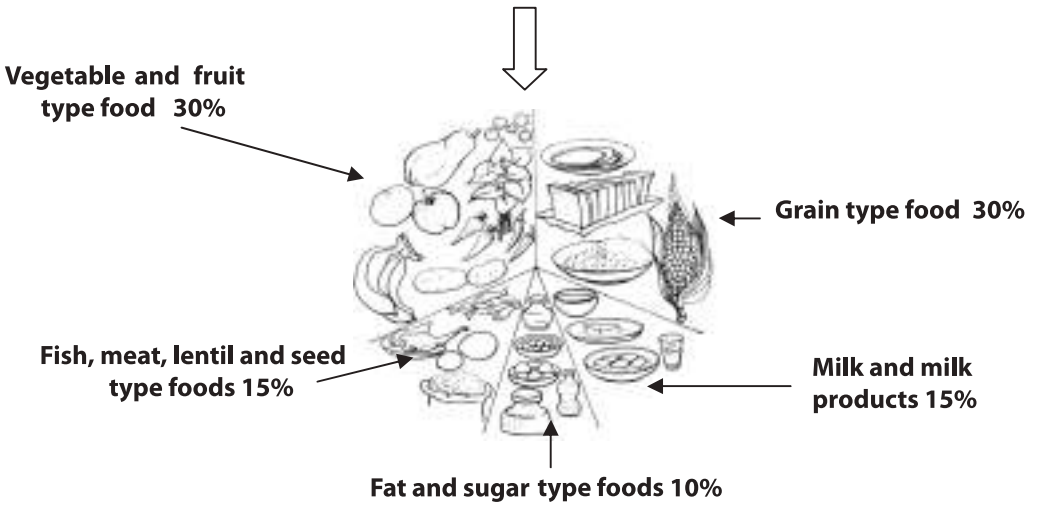
Balanced Diet: Our body needs six food elements and we get them from the five basic food groups. Balanced diet is the right amount of nutritious foods that give proper nutrition to a person's body. In a balanced diet a person gets all

kinds of nutrition properly from different foods according to the need of his/her body. It provides essential amount of calorie, carbohydrate, protein, fat, vitamins, minerals and water for the body. In a balanced diet there is no lack or excess of nutrients. A balanced diet consists of different kinds of foods like fish/lentil, rice/*rooti*, vegetables and fruits, milk etc.

Use of basic food groups in planning a balanced diet

1. Six nutrients can be ensured by selecting foods from five basic food groups.
2. Right amount of food can be selected easily to get sufficient amount of nutrition as we know the right serving amount of each food group.
3. It helps us select the right grain type food that supplies 50% to 60% carbohydrate of the total calories with proper serving amount daily. It also tells us to take 20 gram of molasses or sugar like foods daily.
4. Daily we can get 20% of the total calories from protein containing foods. Moreover, our diet will be balanced and body's demand of protein will be fulfilled if we take right serving amount of fish, meat, lentils and seeds type food. Therefore, it is necessary to select at least one serving amount of animal protein along with that of a plant protein.
5. Each person should take 20 to 30 gram oil (from cooked food) everyday to get 20% to 30% of the total calories from the food containing fat.
6. We need to select sufficient serving amount of vegetables and fruits in order to fulfill everyday's necessity of vitamins and mineral salts of our body. In order to do that, we should select vegetables and fruits from the basic fruit group. We should eat different kinds of cooked vegetables including leafy vegetables, and other vegetables of different colours. We should also take different types of fruits such as fruits of different colour, sour fruits and juicy fruits.

Seed type food	Vegetables and fruit type food	Fish,meat, lentils and seed like food	Milk and milk products	Foods consisting of oil or fat, sugar
Selecting different kinds of foods from 5 food groups according to the need of a body				



Balanced diet is important because

- it provides sufficient nutrition according to the need of the body
- it ensures sufficient calories according to the need of the body
- it helps us to take proper amount of food rather than taking excessive food
- it protects our body from malnutrition.

Diet plan of a family for one day

A plan is essential to ensure a balanced diet for every member of the family. It is told previously that we need to select our food from the basic food groups. Besides, we need to select appropriate foods according to the age of the members of the family. Taking same kind of food every time causes loss of interest, and unwillingness in taking that particular food. This is why we need to select different kinds of food with their proper amount from one food group. Thus, we will get variety in taking food and our food will be balanced as well.

Task- Make a diet plan of one day for the members of your family taking the food from 5 basic food groups.

Breakfast	Lunch	Dinner

Exercise

Multiple Choice Questions

1. Good source of calcium for an adult is —

a. fish
b. milk and milk products ood
c. nuts
d. pulses

2. Which one of the food supplies cellulose?

a. beef
b. green leafy vegetable
c. pea nuts
d. popcorn

Read the stem below and answer to the question number 3 and 4

Nafis is 13 years old. He likes to take rice with pulses. He does not want to eat fish or meat. He also does not like milk or milk products.

3. Nafis's body will have deficiency of–

a. iodine
b. riboflavin
c. sucrose
d. starch

4. With such food habit mentioned in the stem, Nafis will have–

i. deficiency of calcium in his body
ii. malnutrition
iii. less development of brain

Which one of the following is correct?

a. i and ii
b. i and iii
c. ii and iii
d. i,ii and iii

Creative Question:

1.



Picture-1



Picture-2

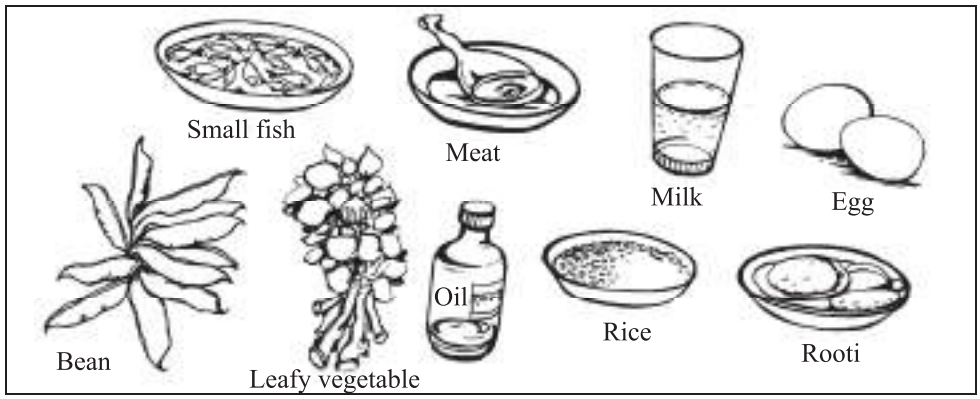
a. How many basic groups can different food be divided into?

b. Why are the milk and milk products necessary for the children?

c. What kind of nutrients do we get from the picture- 1? Explain.

d. Analyse the necessity of the foods in picture 2 to provide nutrition in our body.

2.



a. What is the daily amount of sugar or molasses for an adult that creates deficiency of calorie if it is absent in their food?

b. How much calorie do we get from the grain like food?

c. Prepare a diet plan for lunch for a 13 years old student. Use the foods shown in the picture above.

d. The foods shown in the above picture ensure the need of calories for all members of a family. Do you agree with the statement? Give reasons in favour of your answer.

Short-Answer Questions

1. What are basic food groups?
2. What is meant by one course meal?
3. What is a balanced diet?

Chapter Ten

Patient's Diet and Plan for the Diet

Lesson 1- Patient's Diet

What is a patient's diet? Usually there is no restriction in eating food when someone is physically well. But our body may get some kinds of changes for a disease. As a result we may have special instructions in taking our foods. We also may have restrictions in taking a certain kind of food. Moreover, we may need to increase or decrease the presence of a certain nutrient in our diet. When a person suffers from a disease she or he needs to follow some instructions in taking foods. The diet that a patient takes with special instructions in order to get well quickly or to control the disease is called a patient's diet. For example, when a person suffers from diarrhoea he follows a special diet chart and that is called diet for diarrhoea.

Illness →	Patient takes proper diet with medicine →	No complications resulting from the disease and patient gets well quickly
Illness →	Patient does not take proper diet along with medicine →	Complications increases resulting from the disease and it takes longer time to get well

Importance of a patient's diet

1. It is difficult to get well from most of the diseases without having a proper diet and only by taking medicine. In many cases it is not possible to control the disease without proper diet.

2. Patient's diet is very important to reduce the complications and severity of the disease.

3. Patient's diet helps fulfill the loss of nutrition and energy caused by the disease.

Selecting and planning patient's diet – We need to consider some important factors in selecting and planning a patient's diet. Following are the factors–

- Nature of the disease – to consider if the disease is infectious, indigestion disorder, chronic or severe.
- We need to consider if there is any complication in the patient's body resulting from the disease.
- Age of the patient- diet can be different if the patient is a child. More over, diet of an adult patient can be different from that of an aged patient.
- It is necessary to consider if there is any restriction in taking certain kind of food for the disease. For example, food that contain fibre can be instructed to take less for some diseases.
- We need to consider if there is any relation of taking food with the prescribed medicine for the treatment of a disease. For example, those who take insulin for diabetes have instructions on the timing of taking food and the amount of foods they take.
- Sometimes it is necessary to increase or decrease the amount of a nutrient in the diet chart. For example, a patient of high blood pressure needs to reduce the amount of salt in his diet.
- Problem of malnutrition: If any patient has malnutrition it is necessary to take proper steps to fulfill the deficiency of it. For example, when a patient has anemia, he needs to plan his diet in such way which will help build new blood cells in his body.
- We also need to consider if the patient is allergic to any particular food or if there is threat of creating complications in patient's body for taking any particular food.

If we are careful about all these factors, mentioned above, in selecting foods to plan a patient's diet, it will help prevent the complications caused by the disease and cure the disease. A doctor prescribes medicine when someone is ill. Similarly, a nutritionist gives instructions or directions for nutrition and diet to the patient and helps cure the disease.

Task- What are the things that you will consider to plan a diet if any one becomes ill at your home?

Lesson 2 – Diet for Different Diseases

A patient's diet for fever and dengue fever – Fever itself is not a disease;rather, it is a symptom of a virus attack or other infection. It causes high temperature in the body. There may be some other symptoms with fever - headache, loss of appetite, vomiting tendency or vomiting etc. Fever causes loss of water in our body. It also causes huge energy loss in our body. That is why, the need of water and energy increases in our body when we suffer from fever. Deficiency of nutrients also increases if anyone suffers from fever for a long time. Dengue fever is a viral fever infected by Aedes mosquito. Body's temperature may become too high if anyone suffers from this fever. Like other types of fever, Dengue fever leads to dehydration and a loss of energy in our body. At the same time deficiency of protein and different kinds of vitamins and mineral salts also increase in the body during this time.

Type of diet

- Give the patient foods that have high calories and protein and low in fat.
- Patients will take all kinds of food. But in case of indigestion a patient will take easy digestive food. If the temperature goes up the patient will take soft rice, *khichuri*, soft vegetables with less fibre, potato etc. Besides, the patient can also take shuji, soft pudding and banana, papaya, orange, apple etc.
- To meet the body's need of protein, milk, egg, less oily fish, chicken and lentils can be added in the diet. Dengue fever worsens the protein deficiency in the body.
- A patient needs to take plenty of fluids, for example, milk, *sharbat*, fruit juice, soup, green coconut water etc.
- A patient needs to take fruits which taste sour, for example, lime, pomelo, *amloki* etc. We need to give small amount of food to the patient after every 2 hours if the temperature goes high.

Food which a patient should not eat –

- Butter, *ghee*, excessive oily food.
- Deep fried food, for example- *singara*, *samusa*, chicken fry etc.
- Too much spicy food and food with fibres.
- Bakery food like pastry, cream cake etc.
- Soft drinks.

Diet for diarrhoea and dysentery - We suffer from diarrhoea and dysentery when our intestine gets infected by the germs through food and water that we take. Children mostly suffer from these diseases. Nevertheless, adults can also be attacked by these two diseases. When a person suffers from diarrhoea he/she gets loose motion with fever, stomach ache, vomiting tendency and vomiting. We need to be very careful to plan patient's diet for these diseases because in this case our intestine gets infected directly and our body loses water and salt as a result of loose motion. When a person suffers from dysentery, he also has loose motion and sometimes mucus and blood come out with the stool. In this case, a patient has a kind of stomach ache.

Types of diet

- Diarrhoea causes loss of water and salt in the body and this is why patient needs to take saline after each motion to cover this loss. If needed a patient will take rice saline. It easily fulfils the need of water and salt in the body. A patient with diarrhoea may die from dehydration if he or she does not drink oral saline.
- Breast feeding milk must not be stopped in the case of a baby who is breastfed. Rather, the baby should be given oral saline along with breast feeding.
- A patient can take regular food when the severity of diarrhoea and dysentery is not much. At the same time a patient will also drink oral saline and take medicine.
- When diarrhoea is severe the patient should avoid regular food. Rather he or she should take cooked rice saline. Besides, the patient may take soft rice, white portion of an egg , banana and green coconut water.

- Green banana as vegetable and yellow (ripen) banana as fruit are considered as a kind of medicine for dysentery and diarrhoea. These help cure the diseases. Moreover, *thankuni* has a medicinal quality to cure dysentery.


leaves of *thankuni*


rice saline


green and ripen banana


green coconut

Foods that a patient with diarrhoea should avoid

- Milk, oily food, lentils, nuts, fruits and vegetables with much fibre, dried fruits, sweets and spicy food.
- Soft drink, thick fruit juice.
- Deep-fried foods – *singara*, *samusa*, fried chicken etc.
- Bakery food – pastry, cream cake etc.

Task – Which food will be your first suggestion for a patient with diarrhoea to eat? Why will you give that suggestion?

Lesson 3 - Diet for High Blood Pressure and Diabetes

Diet for high blood pressure - Undisciplined lifestyle, genetic factors, obesity, indigestion disorder etc. may cause high blood pressure or hypertension. The best ways to control high blood pressure are –

- eating proper and controlled food along with taking medicine.
- keeping body's weight normal by hard work and regular exercise.
- disciplined lifestyle, etc.

Type of diet

- Food with maximum fibres, for example, fruits and vegetables, especially fruits that taste sour- lime, pomelo, orange, pine apple etc.
- Tender green coconut water is helpful.
- Excessive amount of rice, *rooti*, food made of wheat and rice should not be taken. Husked brown rice and rough wheat (not refined) are more helpful than white rice and white wheat.
- Patient should take proper amount of fish, meat without fat and egg as well.
- Patient can take lentils, nuts.
- Skimmed milk and sour curd made of that milk.
- Use of less salt in cooked food and patient should not eat any extra salt while eating.



Helpful food for patient with high pressure

Foods that a person with high blood pressure should not eat

- Food with excessive salt. For example – cheese, pickles, sauce, chips, *chanachur* etc.
- Any food preserved by salt. For example- dried fish (salted *hilsha*), canned fish etc.
- Butter, ghee, dalda, coconut and excessive oily and fatty foods.
- Meat with fat and items prepared by these.
- Fast food. For example-chicken fry, pizza, meat nugget etc.
- Bakery food. For example- biscuits, pastry, cream cake etc.

- Soft drinks and energy drinks, dark coffee etc.
- Salad with salt and dressings, soya sauce, Chinese salt and testing salt.

A person can live a healthy life if he can keep the high blood pressure in control. Otherwise, it increases the risks of stroke, cardiac disease and damage of kidney.

Diet for diabetes- Diabetes is caused by a deficiency of insulin in our body. Some genetic factors, obesity, undisciplined lifestyle etc. are the reasons for diabetes. Diabetes cannot be cured once a person gets this, but it can be checked by following some rules. Diabetes cannot be checked or controlled without controlling the diet. It increases the level of glucose in the blood of a body. This glucose is produced by the food that we eat. There are some foods which increase glucose in our blood quickly. A person with diabetes should avoid these food. Besides, there are some food which do not increase glucose quickly but taking excessive amount of these food increases glucose in the blood of our body. This is why a diabetic patient should take limited amount of these foods. A person with diabetes can eat more food with maximum fibres as they do not increase glucose in blood.

Type of diet

- There are some foods which a person with diabetes can eat in plenty or as much as he or she likes. These are – all kinds of leafy vegetables and green vegetables like, *chichinga,* courgette , papaya, *potol,* beans*,* gourd*,* cucumber*, khira, uchche, kakrol,* cauliflower, cabbage etc. Fruits like berry, star apple, lime, pomelo etc. are few examples.
- Patient should take small and limited amount of rice, *rooti*, *chira*, puffed rice, pop corn, biscuit, potatoes, sweet potatoes, pumpkin, milk,*chhana*, cheese, meat, fish, egg, lentils, nuts, sweet fruits like banana, ripen mango, ripen papaya etc. It is more helpful to eat husked brown rice and rough wheat than white rice and wheat for a patient with diabetes.
- A diabetic patient must not eat sugar, molasses, sugar candy, juice, *sharbat*, soft drinks, all kinds of sweetmeats, *payesh*, *khir*, pastry, cake etc.



Food for a diabetic patient that are helpful and can take in planty

Task– Make a list of the food that increase glucose in blood when a person gets diabetes.

Lesson 4- Patient's Diet for Cardiac Disease and Jaundice

Diet for cardiac disease- Patients with cardiac disease are increasing in our country day by day. Diet of a cardiac patient should be balanced and a patient should not eat more calories than the body needs. A cardiac patient needs to take food with more fibres and foods with low sugar, salt and fat.

Types of diet

- Patients need to be accustomed with eating husked brown rice and *rooti* made of rough wheat. He or she should not take food made of rice and wheat more than the body needs.
- Food with more fibres, for example, vegetables and fruits, especially the fruits that taste sour – lime, pomelo, orange, pineapple etc. need to be included in the diet chart.
- Vegetables of different colours – green (leafy vegetables), orange (pumpkin or carrot), violet (beet or beetroots), red (tomato), light yellow (radish, cucumber) should be eaten everyday. It needs to take fresh seasonal vegetables always.
- Patients should eat limited amount of lentils and nuts.
- Fish, fatless meat, chicken without skin, egg – these food should be taken as much as needed for the body.

- It is good to take skimmed milk and sour curd made of this milk.
- Less salt should be used in cooked food and extra salt should not be taken while taking food.



Helpful food for the patient of cardiac disease

Foods that a cardiac patient should avoid

- Butter, *ghee, dalda*, cream sauce, coconut and excessive oily and fatty food.
- Ice cream, sweetmeats or sweet food.
- Meat with maximum fat, liver, skin of chicken and duck, and food prepared by these items.
- Food with excessive salt and food that are preserved by salt. For example, cheese, prickles, sauce, soya sauce, chips, *chanachur*, saltednuts, salted *hilsha*, canned fish etc.
- Fast food. For example, chicken fry, pizza, meat nugget etc.
- Bakery food. For example, biscuit, pastry, cake etc.
- Soft drinks, energy drinks, dark coffee etc.
- Salad with salt and salad dressing.
- Chinese salt.

Diet for jaundice-Jaundice itself is not a disease but it is a symptom of disease of liver. When the symptom of this disease is seen, the patient should be given diet with sufficient amount of carbohydrate, protein and low fat. Many patients get indigestion problem during this time. A patient of jaundice should eat easily digestive food. If the patient does not have problem in digestion, she or he can eat all kinds of food except fatty food. Many people believe that a

patient with jaundice should not eat any food of yellow colour. But this is a wrong notion. Some people give only juice of sugar cane, water and *sharbat* and stop giving normal food to the patient. This is also harmful for the patient. A patient will eat sufficient amount of fluid and all types of food avoiding fatty and artificial food.

Types of diet

- A patient should be given food with high calorie and protein and food with low fat.
- A patient is allowed to eat all kinds of food. But if the patient has indigestion problem, he or she should eat easily digestive food.
- A patient can take soft rice, *khichuri* or *pishpash*, soft and less fibrous vegetables like papaya, potato etc. if he or she has problem in digestion. Moreover, a patient can eat coarsely ground flour (*shuji*), soft pudding and fruits like banana, papaya, orange, apple etc.
- A patient needs to eat milk, egg, less oily fish, chicken, lentils etc. to meet the needs of protein in the body.
- It is necessary for a patient to eat enough fluid. For example- milk, *sharbat*, fruit juice, green coconut water, soup etc.
- Sour fruits, for example- *amloki*, lime, pomelo etc., should be given to a patient.

Foods to avoid

- Butter, *ghee*, excessive oily food.
- Deep fried food. For example- *singara*, *samusa*, chicken fry etc.
- Bakery food. For example- pastry, cream cake.
- Soft drinks and energy drinks.

Task – Make a list of the food that a cardiac patient should not eat.

Exercise

Multiple Choice Questions

1. Which disease causes dehydration?

a. high blood pressure
b. fever
c. diarrhoea
d. dengue

2. Which food is suitable for diabetic patients to keep glucose in control in their blood?

a. lentils b. nuts

c. beans d. sweet pumpkin

Read the following stem and answer to the question number 3 and 4

Rimu's mother is anxious to see Rimu's loss of appetite and her vomiting tendency. She has noticed that the colour of Rımu's eyes and urine is yellow. Mother could realize what has happened to Rimu. She then makes a diet chart for Rimu.

3. Which disease is Rimu suffering from?

a. diarrhoea b. jaundice

c. dysentery d. diabetes

4. Which diet is suitable for Rimu?

a. *Sharbat*, fruit juice, green coconut water

b. *Singara*, *samusa*, chicken fry

c. fish, meat, egg

d. biscuit, cake, soft drinks

Creative Questions

Pushpa's mother-in-law has been ill for the last few days. She has been suffering from the deficiency of insulin hormone in her body. Pushpa is giving her proper medicine. Sometimes to keep the request of her mother-in-law Pushpa prepares patishapto pitha with khir and gives her to eat. Seeing this Pushpa's husband has told her to become more careful to plan the diet of his mother.

a. What is a patient's diet?

b. Describe the necessity of a patient's diet.

c. Explain how the food that Pushpa has prepared will affect her mother-in-law's health.

d. Do you think a proper diet will help control mother-in-law's disease? Analyse it.

Short-Answer Questions

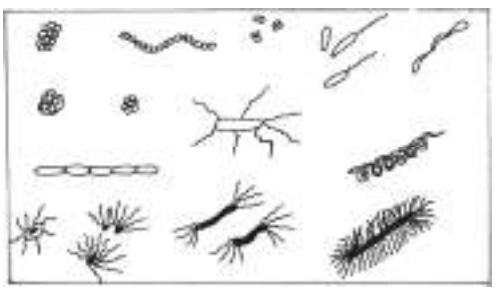
1. Write how to prevent high blood pressure.
2. Why does the body need more water and energy during a fever?
3. Why should fatty foods be avoided during jaundice?

Chapter Eleven

Preservation of Foods

What is preservation of food? Preservation is a proper way to stop food from decaying and store food with their original quality.

After consuming different kinds of seasonal vegetables, fruits and crops, e.g., rice, wheat, lentils , mustard etc., excess of these food need to be preserved in a scientific way so that they remain original for a long time and we can use them in future. That means, vegetables, fruits, crops can be stored for a long time either to eat or to sell them. One of the main purposes behind preservation of food is to use excess food in future by preventing them from getting spoiled and thus wasted.



1 micro organisms



2 Perishable food



3 Fridge

Lesson 1 - Necessity of Preservation of Food

People used to preserve only crops as it is the main food. With the technological development of fridge, cold store now-a-days importance is also given to preserve fruits, vegetables, fish, meat etc.

Foods that are suitable to preserve

- Grain type food
- Vegetables, fruits and food made of vegetables and fruits
- Fish meat and food made of fish and meat
- Milk and milk products

The ways of preservation food depend on the decaying nature of food. So, we need to have the idea about the food which decay quickly, food that decay slowly and imperishable food.

Importance of food preservation

- The seasonal fruits can be preserved for another season and we can meet the need and demand of food.
- By preserving seasonal fruits and vegetables we can meet the need of these foods and use excess food in future. In this way, we can prevent these foods from getting spoiled and thus wasted.
- We can easily get all types of food throughout the year by preserving seasonal food.
- All kinds of vegetables, fruits and crops do not grow in all areas of the country. By preserving the foods in a proper way they can be supplied everywhere in the country.
- Preservation of food can save distressed people from the food crisis and malnutrition during drought, epidemic, flood or any other natural disas ter.
- Food preservation has immense roles in mitigating famine in a country caused by any war or any kind of restlessness.
- Fish-meat, fruits etc. can be canned in order to preserve these foods. We will be benefitted financially by selling and marketing these foods.

Task– Describe the necessity of food preservation.

Lesson 2- Classification of Food According to Their Decaying or Perishable Nature

Rajab Ali is a farmer. To earn his livelihood throughout the year he harvests different kinds of crops, e.g. rice, lentils, wheat, potatoes, mustard, onion, ginger, garlic, coriander, cumin etc. He also harvests tomato, pineapple, watermelon, melon and other seasonal fruits. Throughout the year he grows chili, vegetables and fruits. Besides, he raises cows, hens and ducks in his farm. He also breeds and raises fish in his pond. Although Rajab Ali gets these crops and food in plenty during the cultivation and harvest period, the supply of these products becomes rare at other times as a result of their decaying nature and lack of proper preservation.

This is why all foods and food products need to be preserved in a proper way. And it should be done considering the decaying or perishable nature of each food. In this way, we can fulfill the demand of food throughout the year.

Foods that are suitable to preserve can be divided into three classes according to their decaying nature.

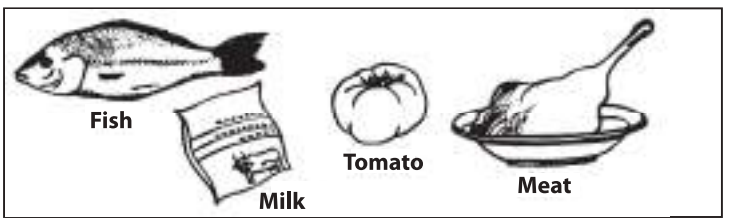
a. Perishable food

b. Less perishable food

c. Imperishable food

a. Perishable food or the food that perish easily

There are some foods which perish quickly within 24 hours. These foods contain more water. That is why the food perish quickly if they are not taken care of. For example- fish, meat, milk, tomato, vegetables etc. We can preserve perishable food by boiling or refrigerating them. We can also preserve these food with ice.



Perishable food

b. Less perishable food



Less perishable food

There are some foods which remain fresh for some days and we can easily eat them. For example- pumpkin, sweet pumpkin, arum, potatoes etc., some fruits, e.g., guava, olive, plum, etc. and egg, ginger, garlic, onion etc. These foods contain less water than the perishable food. That is why we can preserve these food by keeping them in a cool place of a room and keeping them away from heat and light.

c. Imperishable food

Rice, lentils, wheat, dried chili, turmeric, cumin, mustard etc. contain almost no water. We can preserve these food and spices by separating the chaff from them and drying them under the sun. We can eat these food for a long time if they are preserved properly.



Variety of spices



Rice Dal

Imperishable food

Task– Make a list of perishable and imperishable food.

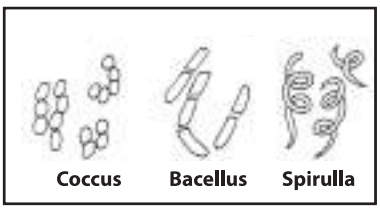
Lesson 3 – Reasons for Decaying of Food

It is not possible to keep any food fresh and original at home for a long time. For example- fruits and vegetables become softer, get dark marks and fungus-spots on them, their skin gets wrinkled and finally they stink. Upper layer of fish and meat become slippery when they are rotten. The eyes of a rotten fish become frosty, scales get loose and gills become pale. Its intestine also starts getting decomposed and as a result their belly gets flattened inwards if we push there with our finger. Eggs also get rotten in room temperature. Fungus and insects also grow in dried food, rice and pulses. Similarly cooked food also get fermented, grow bubbles and stink. This is why we need to preserve food from decaying. In order to do that we need to know the reasons for decaying of food.

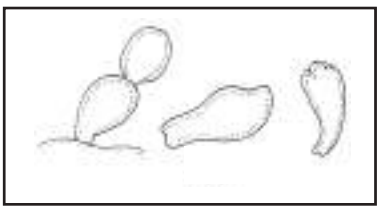
Reasons for decaying of food are given below

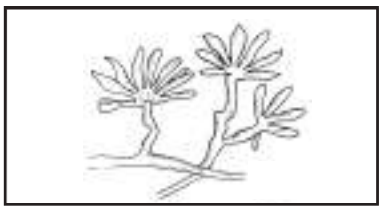
1. Micro organisms

Many microbes like bacteria, yeast, mould, fungus etc. are spread around us in the air, earth and water. We cannot see them only with our eyes. These microbes need food, water, temperature and oxygen to live their lives. These microbes get into food whenever they get chance and reproduce very quickly in a suitable environment. Foods become contaminated and rotten with the attack of these microbes and they become unsuitable to eat.



Bacteria


Yeast


Fungus

Notable microbes are as follows –

i. Bacteria - Bacteria are unicellular organisms. They grow on meat, fish, vegetables etc. and make the foods rotten. Bacteria reproduces very quickly in a humid place. It needs high temperature to destroy bacteria. The rate of growth of bacteria decreases significantly in a drier atmosphere.

ii. Yeast – Yeast is a unicellular microbe which grows fast with the presence of water and air and

destroys food. It ferments carbohydrate and makes alcohol and carbon dioxide. Yeast cannot live without air and can be killed by heat.

iii. Fungus – It is one kind of small plant. Fungus grows on orange, tomato, cheese, bread and sour food with the presence of warm temperature, humidity and air. It develops a soft green or grey layer on the food. There is a kind of fungus which grows in a humid place. This type of fungus develops on crops and peanuts which is poisonous for our body.

Fungus develops quickly in water and humid place. It does not grow in a dry, cold, sunny place. It also does not grow in high temperature. Fungus is destroyed by heat of sunlight.

2. Enzymes - Enzyme is a substance of both animal and plant cell. It works as a catalyst in the cells. Enzyme helps ripen fruits and vegetables. Due to the effect of enzyme on them, fruits become too ripen and soft and easily gets detached from their stalk. The fruits which are too soft become black with the attack of germs. With the attack of germs they produce an unpleasant smell and gradually perish. Enzyme's action slows down in a lower temperature. Enzyme is destroyed if the food is heated with a higher temperature of 80° C.

3. Chemical reactions – 'Acid' and 'tannin' are two chemical substances of fruits and vegetables which react chemically when they get in touch with air and water. With this reaction colour, smell and taste of food get changed and it perishes. To prevent this chemical reaction it is better to preserve fruits in a temperature of 0^{O} C. This reaction can also be prevented by extracting water out of the food and making them dry. Chemical reaction will be less if we preserve fruits in a vacuum jar.

4. Unsuitable place to preserve food – Preserved dried food can be spoiled by dust and attacked by the insects and rats if we do not keep them in a proper place. As a result, germs and fungus grow easily on the food and perish quickly.

Task–Discuss the reasons for the decay or decomposition of food.

Lesson 4 –Ways of Food Preservation at Home

All the food that we get from nature are perishable. Most of the food that human beings produce or grow perish as a result of their decaying nature. To prevent the food from decaying we should know the ways to preserve them. We can preserve food in many ways.

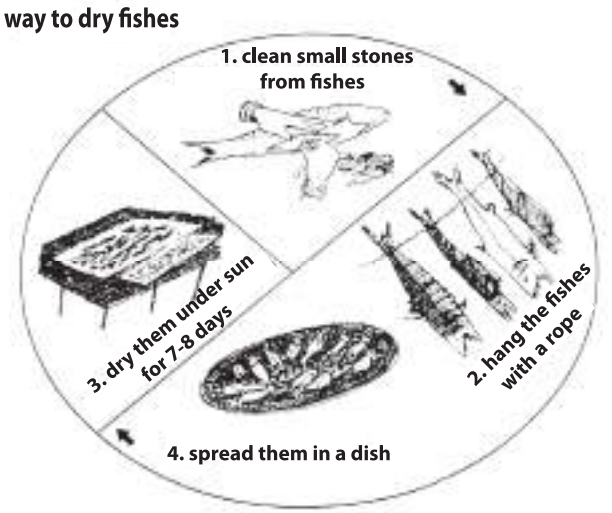
Dried plum and mango, salted *hilsha*, dried fishes and meat etc. are the traditional ways of food preservation in our country. Mainly following these ways of preservation the water is extracted out of these food and prevent them from decaying.

Main purposes to preserve food at home

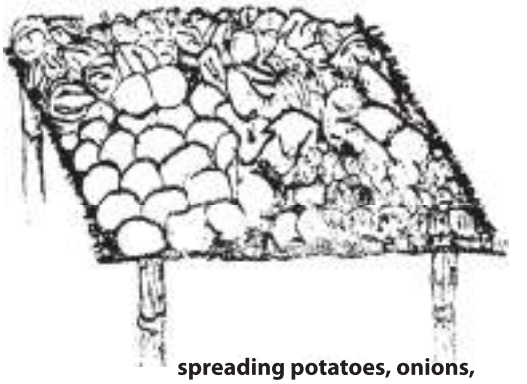
- Taking food of one season in another season.
- Preventing waste of excess food production.
- Preventing the actions of germs and enzymes in food.
- Keeping food nutritious and fulfil the demand of food.

Some general ways to preserve food at home:

Food preservation by drying them in sunlight- Decay of fish meat and fresh vegetables can be prevented if they are dried naturally in sunlight. These food remain good for a long time. Potatoes, carrot, peas, cabbage, plum, mango, fish, meat etc. can be eaten for a long time if they are dried properly in sunlight.



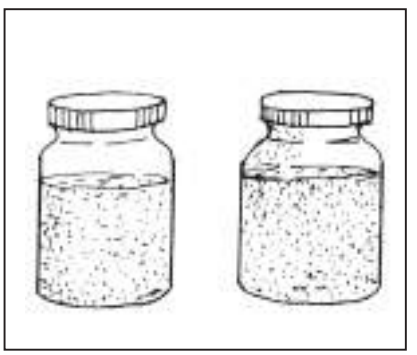
preservation of food in sunlight



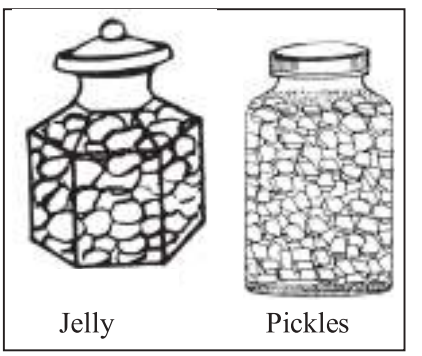
spreading potatoes, onions, garlics in an open place

Preservation of food with molasses or sugar – Molasses or sugar are considered as important preservatives. Plum, tamarind, mangoes etc. can be preserved in the syrup of molasses. We can make *morobba* of pumpkin, mangoes, wood apple with sugar and eat them keeping for a long time. But to keep them their taste and smell in a good condition sometimes we need to put them under the sun.

Preservation of food with vinegar and oil – We can preserve vegetables, fruits and spices with vinegar and oil. Vinegar and oil prevent food from the attack of germs. For example- pickles of vegetables and fruits. Pickles dipped in oil with different kinds of spices (e.g., turmeric, chili, cumin, coriander etc.) are suitable to eat for a long time.

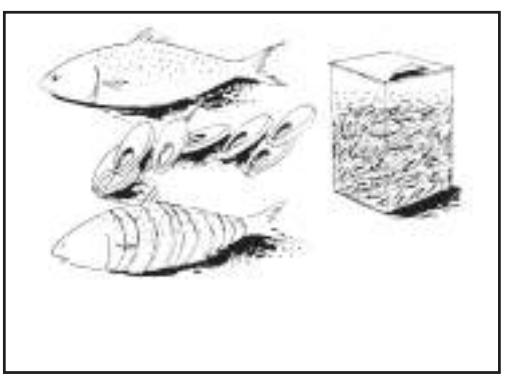


Preserved food in vinegar and oil



Preserved foods in molasses and sugar (jelly, sweet pickles)

Preservation of food with salt



Preservation of fish and fruits with salt

Solution of salt prevents growth of germs. Salt takes away the water from germ cells when we mix salt with foods. For example, salted *hilsha* is prepared by mixing salt with the pieces of fish. We can keep green mango, acid fruit (*chalta*), and *amloki* for a long time by mixing turmeric and salt with them and drying them under the sun.

Preservation of food with ice – To preserve fresh vegetables in a refrigerator we should wipe water off them and keep them in a plastic bag. We need to make a few (2 to 4) holes in the bag to prevent the food from sweating and spoiling. However, in this case the minimum temperature of refrigerator should not exceed 45° F.The chamber where food become frosted in a fridge is called 'fridger'. The lowest temperature of a 'fridger' is – 18° C. The chamber where food do not get frosted but remain cold is called refrigerator. The minimum temperature of a refrigerator is 2° to 6 °C. Food that perish quickly (e.g., fish, meat, milk etc.) can be kept in a 'fridger' and taken for a long time.



Fridger

Task– Describe three ways of food preservation.

Exercise

Multiple Choice Questions

1. What is the minimum temperature of a refrigerator?

a. 2 ° to 4 ° C
b. 4 ° to 6 ° C
c. 6° to 8 ° C
d. 2 ° to 6 ° C

Read the stem below and answer to the question number 2 and 3

Khalek Mia is a fruit seller. He collects fruits from different places of the country and sells them. This year the mangoes which he brought from Rajshahi were not packed properly. As a result most of them perished and he could not sell them.

2. The fruits mentioned in the stem became unsuitable to sell because they were attacked by-

   i. bacteria

   ii. fungus

   iii. enzyme

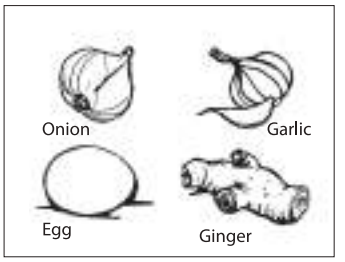
Which one of the following is correct?

a. i and ii b. i and iii c. ii and iii d. i, ii and iii

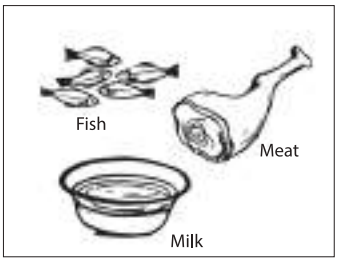
3. Mangoes which were brought from Rajshahi–

   a. were helpful for creating alcohol.
   b. got black in colour.
   c. perished with the chemical reaction of acid.
   d. were attacked by the insects.

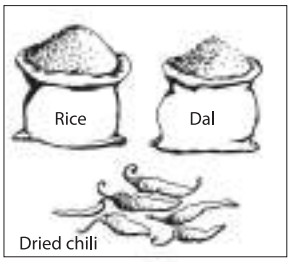
Creative Questions



Pic-1



Pic-2



Pic-3

Sumaiya Khatun keeps all types of food shown in the picture above in her weekly and monthly shopping list as the month of Ramadan has come. After coming back from the market she takes proper steps to preserve the foods in picture 2. She also keeps the food in picture 1 and 3 in one corner of her room in order to arrange them later.

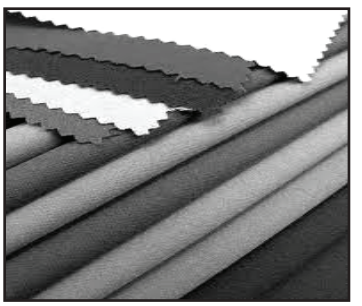
a. Under what circumstances does the growth of bacteria decrease?
b. Fungus develops a soft green and grey layer over the food- explain.
c. Explain Sumaiya Khatun's way of food preservation of picture 2.
d. Is it possible to keep the food in picture 1 and 3 natural and fresh for a long time? Give reasons in favour of your answer.

Short-Answer Questions

1. What are microorganisms?
2. Why do we need to preserve food?
3. Explain the functions of enzyme.

Section–D
Clothing and Textile Fibres

Every fibre has its own characteristics. For these characteristics the qualities and rules for use become different for different kinds of threads. We can make the fabrics attractive by dyeing, printing, embroidering when we know the qualities of threads. Besides, if we have idea about the threads we will be able to select right fabric for our clothes according to the time, place and situation. It will help us wear clothes neatly and present our personality in a well manner.






After studying this section we will be able –

- To describe the characteristics of natural and artificial fibres;
- To describe different stages of keeping the clothes neat and tidy;
- To differentiate formative and decorative design;
- To describe the ways of dyeing, printing, embroidering in ornamenting or decorating the clothes;
- To know the importance of orderliness of clothes to express one's personality and taste.

Chapter Twelve

Qualities of Textile Fibres

Lesson 1- Natural Fibres

(a) **Qualities of cotton fibres (Cotton Fabric)**



Cotton fibres

Cotton fibres come from the cotton plant. Fabrics made up of long cotton fibres are more durable and attractive than that of a cotton fibre with short length. Thick fabric with inferior quality is made by the thick fibres with short length. Fabrics made up of cotton fibre get folded easily and are less bright in colour. These fabrics are heat conductive and absorb water easily. This is why, we can use this fabric to make our clothes in all seasons. It is easy to take care of cotton clothes. We can apply starch on this cloth.

We can apply 'indigo' to make the white coloured fabric brighter and do not need to become much careful to iron them. Cotton fabrics can be washed by soap, soda, warm water etc. We can rub hard while washing them. Price of a cotton fabric is comparatively lower. This is why, besides making our dresses, we can use this fabric to make many other things. For example, we can make bed cover, *saari*, *lungi*, towel, mosquito net, blanket, cover of sofa, napkin and other decorative things etc. with cotton fabrics as it is comparatively cheaper.

(b) Qualities of flax fibre (Linen Fabric)

Linen fabric is made of flax fibre which comes from the plant named 'flax'. This fabric is not as bright as silk but it is brighter than the cotton fabric. It is tow or three times stronger than cotton fabric and becomes stronger when it is wet.



flax fibre

Its quality of absorbing water is better than that of the cotton fabric. However, linen fabric gets folded easily.

Fine threads and smooth linen fabrics can be made by flax fibres which are very shiny, durable and cool. By applying different kinds of colours we can make this fabric more attractive. Clothes made of this fabric are very comfortable to wear. This fabric stays flat and hangs down nicely. That is why, linen fabric is much more popular in making table cover, bed cover, handkerchief, curtain, clothes and other household things. Clothes made of linen are very comfortable to wear during summer as they have high quality of absorbing water.

Task– Compare the qualities of cotton and linen fabrics.

(c) Qualities of silk fibres –



Silk worm

Silk fibre or silk thread is the largest, brightest and softest one among all natural fibres. It is produced by the saliva of silkworm. The cloth or fabric made by silk thread does not get folded easily. A silk fibre becomes weaker in sunlight. A white coloured fibre becomes yellow with excessive heat. The quality of heat conductivity of silk fibre is not good. This is why, we feel warm if we wear clothes of silk fabric during summer.

Silk fabric gets damaged with different kinds of alkali like soap, soda etc. The cloth does not get small spots when it is dry. It does not shrink easily. Its capacity of absorbing colour is good. However, silk is damaged easily by sweat. Silk cloth is lighter in weight than cotton and linen. It is suitable to use for many purposes. This is why, different kinds of things such as, shirt, blouse, boys' and girls' dresses, decorative things etc. are made silk fabric. Silk cloth is expensive. But we can use silk clothes for a long time if we take proper care of them.

(d) Qualities of woollen fibre – Wool is an animal fibre. Among various animals, lamb's wool is the most commonly used for making woolen cloth. It has the best quality of absorbing water. Woollen fibre is very soft and flexible and this is why, it does not get folded. Wool is not a heat conductive fibre. This is why wool is used to make winter clothes like sweater, socks, muffler, coat, pants, jacket etc.



Lamb as a source of wool

Moreover, different kinds of blankets, *shawl*, carpets etc. are also made wool. The size of a woolen cloth becomes shorter and its quality becomes inferior when it is wet. This is why, we need to take extra care while washing and ironing them. Woollen cloth can be used for a long time and can be more durable if we use them with care.

Task 1- Make groups with your classmates. Each group will collect one type of cloth or fabric. Present the qualities of the fabric and compare its qualities with other kinds of fabrics.

Task 2- Make a chart to show the uses of different fibres in our daily life.

Lesson 2 – Qualities of Artificial Fibres

There are many fibres which are not produced naturally. Artificial fibres are invented by humans. Artificial fibres are produced by mixing natural fibres with chemicals or only by the chemicals. For example, nylon, rayon, polyester etc. The qualities of rayon and nylon will be discussed in this lesson.

(a) Qualities of rayon fibres – Fabrics made of rayon fibre are beautiful and bright like silk fabrics. This is why, rayon is called artificial silk. Its flexibly is more than that of silk. Rayon is a heat conductive fibre. Main ingredient of rayon thread is pure cellulose. Usually a rayon fibre is not affected by the light. It is burnt at a temperature above 149° C. Rayon fibre shrinks more than the

cotton thread in water. This fabric does not get damaged in low alkaline. This fabric is not affected by small black spots if it is dry and clean. However, it develops spots if kept in a humid place. Rayon fibre has a higher capacity of retaining colour. It becomes weak when it is wet but gets its quality back when it is dry.

Rayon is cheaper in price than other kinds of fabrics. People can buy rayon cloth easily as they are available in the market with different reasonable prices. One of the qualities of rayon is that it is very attractive. Rayon fibres with different levels of brightness are available in the market and they are used for different purposes. It is famous because people can use it to serve different purposes. Carpet, bed cover, decorative things, curtain etc. made of this fibre bring novelty in the interior of a room. Clothes made of rayon fibres are strong, bright and durable. Rayon cloth is easy to wash and care for.

(b) Qualities of nylon fibres- Length and radius of this fibre can be controlled as it is an artificial fibre. It has some brightness. Nylon fibre is light in weight, but it is very strong, flexible and durable. Its quality does not change if it is wet in water. Cloth made of this fibre does not get folded. Air cannot pass through the cloth. This is why it is mostly used in winter and rainy season than in summer. Nylon fibres cannot stand much heat. Nylon melts at a temperature of 189° C. After nylon is melt, a grey or copper coloured substance is left which becomes hard when it comes into contact with air.

Nylon fibre is melts at high temperature However, mild warm water can be used in washing nylon cloth. Sunlight, mild alkaline or mild acid do not affect the quality of nylon fibre. However, we should not use bleaching such as chlorine in nylon cloth. Nylon fibre also does not get affected by moth, fungus etc. It has less ability to absorb water. It does not have the capacity to retain colour. We need to use special technique if we want to dye this fibre.

Nylon cloth is used for many purposes as it is strong and light in weight. Nylon is used to make undergarments, mosquito net, bed cover, cover of furniture, cloth for umbrella, rope, lace, knitting thread, net to catch fish, cover of leather goods, carpet, bags for different games, e.g., golf, etc. as this fibre is long lasting and flexible.



Rayon fibre



Rayon cloth



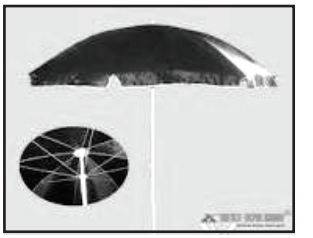
other things made of rayon



Nylon mosquito net



Nylon bag



Other things made of nylon

Nylon cloth can be washed and dried easily. This is why it is mostly used during the rainy reason. Nylon fibre is used to produce different kinds of fabrics by combining it with other kind of fibre. For example, nylon-cotton, nylon-wool, nylon-rayon etc. Nylon cloth stays cleaner as dirt does not easily stick on it. This fibre does not need to be ironed frequently.

Task- Name of some artificial fibres are given in the left column of the table below. Write the qualities and uses of each fibre in the right column of the table.

Different kind of fibres	Qualities of fibre	Uses of fibre
Rayon fibre		
Nylon fibre		

Exercise

Multiple Choice Questions

1. Which of the following is made of Nylon?

a. curtain
b. handkerchief
c. table cover
d. cloth for umbrella

2. In which fibre do we get less variety of colours?

a. linen
b. silk
c. rayon
d. nylon

Read the following stem carefully. Answer to the question number 3 and 4

Mrs. Farhana washed her expensive white coloured saari made of natural fibre. She put the *saari* under the bright sun to make it dry and went to her office. In the evening, when she came back home, she found that the *saari* had become less bright and looked yellowish.

3. Which fabric is Mrs. Farhana's *saari* is made of ?

a. cotton
b. silk
c. linen
d. rayon

4. Mrs. Farhana take proper care of her *saari* by-

i. using detergent to wash it.

ii. putting it in shadow to dry.

iii. ironing it with lower temperature.

Which one of the following in correct?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii and iii

Creative Question

In a summer noon, Sayera went to a wedding venue with her son, Irfan and daughter, Sabah. She gave a cotton shirt and pants to Irfan and a silk dress to Sabah to wear. Later, the mother noticed that Irfan was feeling comfortable in the crowd at of the wedding ceremony but Sabah was feeling uncomfortable. After coming back home, she washed both Irfan's and Sabah's clothes in warm water and rubbed the clothes with soap.

a. What is the source of flax?
b. Why is a cotton cloth comfortable to wear in all seasons? Explain.
c. Why was Sabah feeling uncomfortable? Explain.
d. Do you think Sayera was right in washing the clothes? Analyse and discuss.

Short-Answer Questions

1. What is silk fibre?
2. What is artificial fibre?
3. Why is the wool fiber used for making winter clothing?

Chapter Thirteen
Cleanliness of Clothes

Lesson 1- Removing Stains

We need to follow some steps to clean our clothes properly. For example- selecting clothes to wash, repairing them, removing stains from the clothes, selecting ingredients to wash the clothes, keeping necessary equipment ready to use, making plan to wash the clothes etc. The whole process of cleaning a cloth can be done successfully if we follow these steps.

Removing stains from the clothes is a part of prior preparation of washing the clothes. Sometimes our clothes are spoiled with some marks or colours which cannot be removed by washing them normally. We need to follow some special ways in order to remove such marks. These unwanted marks in the clothes are called stain. Before washing the clothes we need to remove stains from them by following some proper steps. Otherwise, these stains may become permanent or may spoil other clothes.

The removers that we use to remove the marks or stains from our clothes can be divided into two parts–

1) Mild remover- Mild solution of oxalic acid, vinegar or acetic acid, baking soda, ammonia, borax, hydrogen per oxide etc. are mild removers. Usually clothes do not get damaged by using mild removers. This is why, these removers are used to remove stains from fine clothes that are expensive.

2) Strong remover – Soda for washing clothes, hydrochloric acid, thick solution of oxalic acid, javely water, chlorine etc. are strong removers. Some clothes get damaged if any of these removers is kept in contact with them for a long time. This is why, we need to be careful in using these removers.

General rules to remove stains from clothes

We need to be careful about some matters while removing stains from clothes. They are :

1) When a cloth is stained we need to remove that as quickly as possible because it is more difficult to remove an old stain.

2) Different types of removers is used for different fibres. This is why it is important to know the kind of fibre the cloth is made of .

3) We need to know the source of stain or the kind of stain. If we apply any remover without knowing the source of stain it may work otherwise and the stain may become permanent.

4) If we do not know the kind of stain, we should not use warm water directly to remove it, because in such a case using of warm water may make the stain permanent.

5) Before using any remover on a dyed cloth, we need to know whether this remover will damage the colour or not. So this test can be done by using a little amount of remover on one corner of the cloth.

6) We should apply mild remover first. We will use strong remover when the stain is not removed by a mild remover.

7) Remover should be washed away thoroughly when the stain is removed from the cloth.

8) If the remover is acid we need to mitigate it by applying mild alkaline after removing the stain. Similarly, we need to mitigate an alkaline remover with mild acid.

9) It is safe to use mild remover twice or thrice rather than using any strong remover for once.

10) We should not keep the cloth in the solution of remover for a long time. Cloth must be dried up immediately after the removal of stain.

It is easy and enjoyable to remove stains from the clothes which are suitable to wash. Following is a description of the ways to remove stains from the clothes.

1) Stain of blood – When a cotton cloth or linen cloth is stained with blood the cloth should be soaked in cold water for a while. Then wash them with mild soap water. In case of an old stain, soak the clothe in a mild ammonium solution

for a while and finally rinse them with water. When the stain is not removed from silk and woollen clothes, they should be soaked in a solution of salt for a while.

2) Stain of mud- Mud stain should be removed by soap water. Use potassium per manganate solution and oxalic acid solution if the stain is not removed with soap water.



Ink stain

Task– Write the way to remove the stain like blood and mud.

Lesson 2 – Removing Other Stains

Ink stain- When a cotton and linen cloth is stained with the ink of ball point pen, to remove the stain keep a blotting paper under the stained area of the cloth. Then sponge the stained area with a round shaped piece of cotton soaked with methylated spirits. Then rinse it with water.

We will remove the stain of shoe ink in the same way. If the cloth is stained with writing ink we will wash the stained area first with soap water. If the stain is still there wash it again with mild oxalic acid or ammonia.

Sticky extracts from rind and flower - If a linen or cotton cloth is stained with the sticky extracts from rind and flower, pour boiling water slowly onto the stain. Then wash the stain with soap water. Do not use soap if a cloth is stained with the sticky abstract of black berry. If any dyed cotton, linen, silk, woollen or synthetic cloth is stained with the sticky abstracts from rind, wash the stain first with warm water. Then wash it with glycerin and white vinegar.

Tea or coffee - When a cotton or linen cloth is stained with tea or coffee rub borax solution or lime juice on the stain and dry it under the sun. The stain will also be removed if you slowly pour boiling water from above, from a distance of 1 to 3 feet. Stain of silk and woollen clothes can be removed by using hydrogen per oxide solution.

Stain of turmeric - When a cotton or linen cloth is stained with turmeric, we should wash the stain with warm water first. Then apply soap on the stained area and lay the cloth out on the grass and dry it under the sun. In case of other kinds of clothes, use a few drops of hydrogen per oxide and wait for a while. Then rinse the cloth with water well and dry it.

Iron stain- Remove an iron stain by rubbing a piece of lime on it when the stain is new. When the stain is an old one, use salt with lime. An iron stain can also be removed by using mild oxalic acid.

Stain of sweat – Sweat stain of linen and a cotton cloth will be removed by washing it with soap water and drying it under the sun. In case of an old stain use ammonia solution or mild hydrogen per oxide solution and let the cloth to soak in the solution and then rinse it. If it is a dyed cotton or a dyed linen cloth soak the cloth in mild hydrogen per oxide and sodium hypo sulphite solution for a while. This removes both old and new stains from the cloth.


Sweat stain

Stain of cooked food- This stain can be removed from a white coloured or a permanent coloured cotton cloth if we wash them with soap water and dry them under the sun. If the stain is not removed in this way we need to bleach the clothes with *javeli* water. In case of silk, woollen and coloured cotton clothes, we need to wash them with soap


Stain of cooked food

water first and then clean them with 10% potassium per manganate solution.

Task– After group discussion present the way to remove different types of the stains from clothes.

Lesson 3 – Prior Preparation of Washing Clothes; Washing Silk Clothes

Almost every family needs to wash clothes. Although washing clothes is an easy task, we need to have some general knowledge about the science of fibres. The process of washing clothes will become easier if we follow some basic rules before we start it. To complete the whole process of washing,we need to take some steps as a part of prior preparation. These steps are described below

1 Check the label and select the clothes- Different kinds of clothes have different rules to be taken care of. This is why we need to know the kind of fibre that a cloth is made of. Clothes have labels containing some instructions. We should follow these instructions to take care of the clothes. We should select the clothes that can be washed together. For example, cotton and linen clothes can be washed together. In order to wash the clothes easily we can keep them in separate groups considering the amount of dirt on them. For example, less dirty clothes, more dirty clothes, heavily dirty clothes, white coloured and dyed clothes, small clothes like socks, handkerchief etc.

2 Repairing the clothes- Sometimes our clothes are slightly worn out and tattered as a result of long use. In order to repair the clothes, they need to darn or mend by sewing on a patch before we wash. If we do not repair the cloth, it can be damaged more after we wash it.

3 Removing the stains- Sometimes our clothes get stains. It is necessary to remove the stains before washing the clothes. Otherwise, the stain may become permanent or spoil other clothes.

4 Selecting soap and other materials- We use different kinds of strong soaps, mild soap or detergents to wash our clothes. Normally we can use soap or soda to wash cotton and linen cloth. However, we can use mild detergent to wash a cotton or linen of high quality, silk and woollen clothes. We may use 'indigo' to brighten the white coloured dress. If it is needed we can apply starch on a cotton cloth.

5 Keep necessary equipment ready to use- We need bucket, bowl, mug, saucepan, stick or spoon board, brush, suction washer, wooden stand, ringer etc. and washing machine (if possible) to wash the clothes.

6 Making plan for washing clothes – We need to make a plan for washing clothes at home. A proper plan will make our task easier as there are different ways to wash different kinds of clothes. Here is a brief description of the ways of washing silk and woollen clothes.

Washing silk clothes

We can wash silk clothes manually using water at our home with every care. It is not necessary to soak the cloth in water for a long time. However, for an old silk cloth and a silk cloth with heavy dirt we will keep them to soak in warm water with mild soap for a while.

Before washing a silk cloth, remove dust off the cloth. If there is any stain in the cloth we must remove that properly. Always use warm water and mild liquid soaps to wash these clothes. After removing the dirt the cloth should be rinsed with warm water and finally with cold water.

We may use soap not just water to wash dyed silk clothes. If we keep the soap nuts wet for a night and rub those soap nuts in the following morning, we will get water with mass of bubbles. Silk clothes can be washed nicely with this water. Colour and design of the clothes will not be damaged if the clothes are washed in this way. After washing the clothes thoroughly rinse them with clean water. Then rinse the clothes again in cold water mixed with vinegar. As a result, the clothes will get their brightness back. Finally, dry the clothes in shadow. There

is a risk for a white coloured silk to get yellow mark on it if it is dried under the sun or with high temperature. Dyed silk may lose its colour if it is dried under the sun.

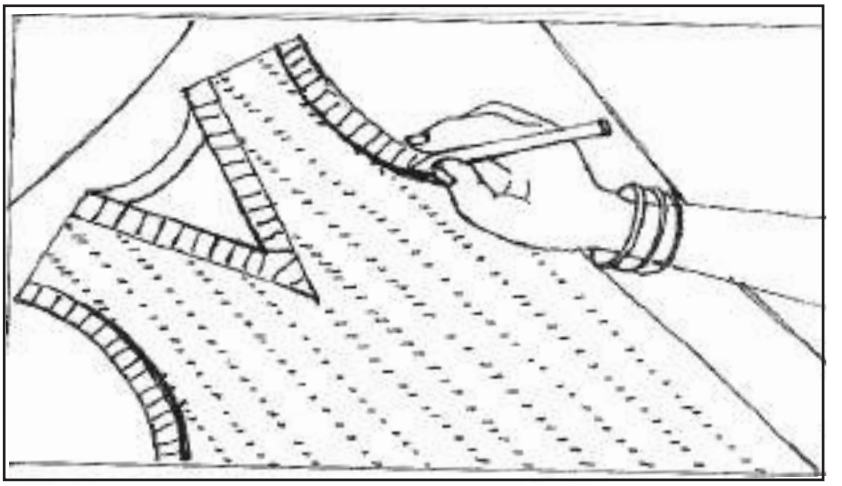
Main points for washing silk clothes

1. Generally it is not needed to leave the cloth to soak in water for a long time.
2. While washing the cloth use warm water and finally use cold water.
3. Do not use any alkaline soap.
4. Always use mild water.
5. Do not rub the cloth as it may damage the fibres.
6. Mix a small amount of salt and vinegar with water to wash dyed and printed silk.
7. Never wring out the clothes in order to get water out of them.
8. Always put the cloth in shadow to dry them.

Lesson 4- Washing Woollen Clothes

Woollen clothes are comparatively expensive. They are damaged easily if we do not take proper care of them. Dirt or dust cannot stick to this type of cloth. This is why we do not need to let them soak in water before washing. We can easily brush the free dust off the clothes. Like other clothes, woollen clothes also need to be repaired and the stains should be removed before washing them.

Handmade woollen clothes are more delicate. After washing these clothes most of the time they do not remain in their previous shapes. This is why it is needed to draw the original shape of a handmade woollen dress laying the cloth out on a flat piece of paper before washing it. After washing the dress remove water off the cloth with special care. Then lay the cloth out on its design which was drawn before. Now stretch the cloth with hands to its original shape. The cloth's shape will be distorted if it is hung on a rope or with a hanger.



Drawing the original shape of a handmade woollen dress on a flat piece of paper

Use warm water to wash woollen clothes. Both too hot water and too cold water are unsuitable to use for washing these clothes. To wash these clothes temperature of water should be nearly 100° F. While washing the clothes temperature of water should remain the same. Woollen clothes should be washed quickly. The clothes will shrink and become hard if they are kept in water for a long time.

Generally woollen clothes should be washed with less alkaline soap, detergent power and soapberry wash. Melt soap in the warm water in a large bowl and leave the clothes to soak in that water. Then, slightly stir them with hands and rinse them. Do not keep woollen clothes to soak in water for a long time because it makes the clothes weaker. After cleaning the clothes rinse the clothes thoroughly with water of same temperature to remove the soap. The whole process of cleaning and washing can be done quickly if 2 or 3 bowls and water of equal temperature are used.

After washing the clothes water can be drained out by pressing a little with the palms. Do not twist the clothes in order to get the water out of them. Now wrap the clothes with a towel in order to soak the rest water off them.

Woollen clothes should be dried in shadow or low sunlight. Clothes which are knitted in a machine can be hung on a rope in order to dry them. But in case of a handmade woollen clothe, we need to mend the shape of it by laying the cloth out on the picture of its original shape which was drawn before. Shapes of clothes shrunk during the time of washing can be regained through repeated stretching when they are being dried up. Thus we can get its original shape again. As woollen clothes are heavy and thick they should be upside down frequently while they are being dried. It helps the clothes to be dried up quickly.

We need to remember the following points while washing woollen clothes–

1. Do not use too hot or too cold water to wash woollen clothes.

2. Do not use soaps or detergents with high alkaline.

3. Never rub the clothes while cleaning them.

4. Do not leave the clothes to soak in water for a long time.

5. Do not twist the clothes in order to get the water out of them because it can damage the fibres.

6. Do not dry them in high temperature or bright sunlight.

Lesson 5- Applying Starch on Cloth

After removing stains from a dress and washing it we need to bring brightness of the cloth and make it stiff. The substance that we use to make clothes stiff is nothing but starch which consists of carbohydrate. For example, rice starch, wheat, arrowroot, barley, granular carbohydrate etc.

As a result of starching-

- Brightness of clothes is increased.
- Soft clothes get stiffness and newness if starch is applied properly with a right amount.

- Clothes become less dirty as the starch creates a layer over the clothes.
- Clothes become more comfortable, tidy and beautiful.

Rules of starching

Among all types of starch rice starch is more familiar. Starch can also be prepared by mixing arrowroot or wheat with cold water and stirring it on fire. The thickness of starch depends on the expected stiffness of a cloth.

- Sift the starch using a sieve or a soft piece of cloth before applying it on clothes.
- The other side of clothes should be soaked in a starch.
- Apply thick starch on a light cloth and watery or light starch on a heavy cloth.
- Warm starch works less on a cloth and damages the colour of a cloth. This is why use starch with normal temperature.
- A small amount of 'indigo' dissolved in cold water should be mixed with the starch in case of starching white and black coloured clothes. It stops creating marks on these clothes and makes them brighter.
- Starched clothes should be dried up well,otherwise,they may have bad smell.
- Silk clothes do not need starching as these clothes become stiff when they are rinsed with water and dried up well. However, if they still need starching,use proper amount of watery starch. Methilated spirit can be used to make these clothes brighter . In

order to do so, dilute one spoon of methilated spirit in 3 *chhatak* amount of water and dip the clothes into the solution.

- Woollen clothes also do not need starching. However, a few drops of lime juice or citric acid can be mixed with the water while rinsing the clothes finally. It will make the clothes brighter. Dyed woollen clothes get their brightness back if solution of vinegar and salt is used.
- Put the starched clothes under the sun fully stretched to dry them. Otherwise,it becomes difficult to iron them.



Drying starched clothes under the sun

Lesson 6 – Ironing the Clothes

In the previous class,we have learnt that while making a dress, we should iron the cloth before cutting the cloth and also after stitching it, to properly make out the intended design and shape. Moreover, the clothes lose their brightness and shrink after we wash them. This is why we need to iron the clothes to increase their beauty and tidiness. We can make the clothes flat and smooth by pressing them with a heated iron. Necessary equipment for ironing clothes are-



Iron



sleeve board



Iron board

Iron- There are different types of iron used in our country-

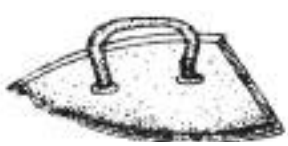
1. Coal Iron – It is a very old kind of iron. We need to take the upper cover off the iron and put burning coal inside it. The iron gets heated with the burning coal. Clothes have the risk to get burned as we cannot control the temperature of a coal iron. Moreover, there is a risk to have accident if the burning coals come out of the iron.

2. Iron of wrought iron sheet–This kind of iron is made with flat, thick sheet of wrought iron. It is heated on the oven to iron the clothes. It is needed to iron the clothes carefully with it as we cannot control the temperature of such iron. Otherwise, the clothes may get burned.

3. Electric iron- An electric iron is heated with electricity. It is modern and user friendly. Clothes of all kinds of fibres can be ironed quickly with an electrical iron as we can control the temperature of it.



Coal iron



Iron made of wrought iron



Electric iron

- Ironing board – We need a flat table or ironing board to iron the clothes. The height of this board is up to our waist. There is a place at the left side of the board to keep the heated iron.

- A blanket or a bed sheet – A thick blanket or a bed sheet is needed to lay it out on the iron board.
- Sleeve board – There should be a sleeve board to iron the sleeves, collar, cuffs etc. of a dress accurately.

Moreover, we need a sprayer to wet the clothes, a small towel, a small bowl, a piece of soft cloth etc.

Rules of ironing

1. Before ironing a cloth we need to remove if anything is stuck on the iron.
2. We need to control the temperature considering the kind of fibre of a cloth.
3. Dyes and designs of clothes do not have the risk to get damaged if we iron the other sides of these clothes.
4. We should iron the clothes following the instructions of the labels on them. It is better to iron cotton clothes when they are slightly wet. If the clothes are dried up we can sprinkle some water over them and wrap them with a wet towel for 10 or 15 minutes to make the fibres of the clothes softer.
5. Iron a silk cloth when it is slightly wet. The cloth may get marks on it if we iron a dry cloth by sprinkling water over it. In such case, instead of sprinkling water we should soak the dried cloth in water again. Silk fibres get burned if we use high temperature to iron the cloth. Generally we should iron the other sides of these clothes.
6. In case of woollen clothes, use low temperature to iron them. Iron the other side of the clothes when they are slightly wet. Keep a piece of light and moist cotton cloth over the woollen clothes while ironing them. Never use too heated iron for woollen clothes.
7. It is better always to move the iron along a straight line while ironing any clothes.
8. Fold the clothes properly while ironing them. It helps the clothes to become smoother with the press of a hot iron.
9. After ironing the clothes keep them in open air for a while and let the steam to dry properly.

Task – Apply starch on a cloth. Iron and fold the cloth properly and bring it in your classroom.

Exercise

Multiple Choice Questions

1. Which one of the following is used to remove an old mud stain?

a. vinegar
b. soap water
c. oxalic acid
d. glycerin

2. Which one is used as an alternative of rice starch to bring stiffness of a cloth?

a. acetone
b. arrowroot
c. borax
d. ammonia

Read the following stem carefully and answer to the question number 3 and 4

While Khodeja was taking her lunch suddenly her *saari* got stained with meat curry. After finishing her lunch she changed her *saari* and kept it to wash for the next day.

3. What could Khodeja use primarily to remove the stain of her *saari*?

a. cold water
b. soap water
c. aveli water
d. salt water

4. As per the context in the stem, if Khodeja Begum tries to remove the stain later-

   i. it will be difficult to remove stain.

   ii. the *saari* may become unsuitable to wear.

   iii. chemical remover will be needed to remove the stain.

Which one of the following is correct?

a. i and ii

b. i and iii

c. ii and iii

d. i, ii and iii

Creative Question

1. Saima Ahmed always uses henna in her hair. One day when her dress was stained with henna, she let it to soak in detergent water. She also kept a bed cover with heavy dirt and a white coloured saari with the henna stained dress. After the clothes were washed she found henna stain in her saari which became unsuitable to wear.

   a. Which starch is more suitable to apply on silk fibres?

   b. Why is it necessary to apply starch on clothes?

   c. Describe the way to remove the stain from Saima Ahmed's dress.

   d. Do you think Saima Ahmed is well aware of the ways to remove stains from clothes? Justify your answer.

2. Sara reads in class Seven. Her mother always washes and irons her clothes. Her clothes look new even after a long use. Sara's mother has been ill for the last few days. This is why, this week, Sara herself washed her white coloured cotton school uniform with detergent and dried it up. Although the uniform became clean, its brightness did not increase. After ironing the washed clothes she also ironed a scarf made of nylon which was burnt while ironing it. Later another white coloured dress also got a mark when she ironed it.

a. What kind of remover is used to remove ink stain of a ball point pen?

b. Why do we need to remove stains from the clothes before washing them?

c. What was the necessary ingredient that Sara did not use while washing the clothes? Explain.

d. 'Sara did not follow the rules of ironing the clothes properly.'-analyse this statement.

Short-Answer Questions

1. Mention two rules for removing stains from clothes.
2. Explain the process of washing woolen clothes.
3. Explain the process of starching clothes.

Chapter Fourteen
Decorating the Clothes

Lesson 1 – Formative and Decorative Design

We know that different kinds of weaving fibres produce threads and we make clothes by knitting the threads. There are some fabrics/clothes which are directly made of the fibres. Whatever be the process of making a cloth it is not directly brought to the market with its original form. Most of the time a cloth is brought to the market after making it attractive. Do you know the ways to make a cloth attractive? Basically, there are many ways to make a cloth attractive. Mainly, clothes are being decorated to bring variety in them and make them more attractive.

Threads and clothes are made by different kinds of fibres. If we look at our dresses, we will find that some of our dresses are made of simple fabrics and some of them are made of designed fabrics. The pattern of a simple fabric is called formative design and the pattern of a designed fabric is called decorative design. In other words, formative design is a pattern which is used to give the basic frame or outline of the fabric. On the other hand, decorative design is the pattern where a special diagram or design is used to make the fabric more attractive.

Two sets of threads are needed to make the formative design of the clothes and these clothes are made of woven fabrics or *tant*. To make *tant* a set of thread is put vertically in the spin while another set is put across the vertical one. In this case, formative design is followed only to prepare the clothes of original fabric. For example, single coloured cotton, long cloth, Voil, jeans etc. On the other hand, decorative clothes are made in a complicated way by using various colours and threads with different diagrams, e.g., *jamdani*.



Cloth with formative design



Cloth with decorative design

We have understood from the above discussion that a diagram of formative and decorative design is prepared while knitting the fabric. However, it is possible to change a cloth with formative design into a decorative one even after the process of knitting. For example, a single coloured formative cloth can be decorated by printing, painting, embroidery or by some other process. A formative cloth should be made in such way so that it can be changed later into a decorative one. On the other hand, to make a cloth decorative it is necessary to consider the colour, form of the cloth or fabric with formative design. For example, we should not use woolen thread in a cotton fabric.

A design will be formative when only a frame or outline of a diagram is made by printing, painting, embroidery or some other process. On the other hand, in case of a decorative design, the diagram will be ornamented with some attractive designs. A decorative design of a cloth should look modern. However, we should not use too complicated design.



Formative design on a cloth



Decorative design on a cloth

Task – Make a list of different ways to make the formative and the decorative designs.

Lesson 2- Dyeing and Printing

In the previous lesson, we have learnt the ways and process of decorating a cloth while producing it. Can we name the processes of decorating a cloth after its production? We can make a simple cloth extraordinary by dyeing it with colour or by printing it. A discussion on dyeing and printing is given below.

Dyeing – Dyeing means applying colour. This colour can be applied to the fibres, threads, on fabrics or dresses to increase their external beauty. Through dyeing a cloth receives colour on the either sides of it. In a process like 'tie- dye' a cloth is tied in many ways and dipped into a liquid colour. As a result, the cloth gets different kinds of designs on its both sides. This process is called 'tie-dye' because the cloth is not dyed directly rather it is dyed by tying the cloth. The materials that we will need for doing this are – thin cloth, threads, button, small stones, pulses, chick-peas, dye, caustic soda, baking soda, salt, scissors, glue, ruler, plastic bowl etc.



Decorating cloth with 'tie-dye' process

Process of dyeing- A new cloth with starch does not receive colour well. That is why, before dyeing we should wash the cloth to remove the starch, dry it and then iron it. Then the cloth should be folded in many ways. In order to make knots sew the cloth or put small stones or pulses inside the knots. The knots are tied with threads and the cloth is dipped into the dye. The cloth will not be dyed in the places where the knots are tied. After drying the cloth open the knots. As the knots will not be dyed it will create a beautiful design. To dye the

cloth use a bowl made of aluminium or steel. After boiling 1 liter water $\frac{1}{2}$gm vet colour will be mixed. $\frac{1}{2}$gm caustic soda and $\frac{1}{2}$gm hydrosulphide will be mixed with that. Then the mixture will be filtered. After this, dip the cloth into the dye and stir it for some time. After 15 minutes rinse the cloth with cold water and dry it. Now untie the knots and finally iron the cloth.

Task – Tie a piece of cloth of 12″/12″ in different ways. Dye your own piece of cloth, wash it and dry it. Show your own designed piece of cloth.

Printing- Printing means applying both colour and shapes in a cloth. We make a cloth attractive by using colourful shapes and designs through printing. We can do it at our home.

Printing cannot be done with fibres or threads. Rather we print or mark our clothes with some designed shapes and diagrams. Printing is done in one side of the cloth.

We can decorate our clothes by different kinds of printings. For example, block printing, batik printing, screen printing etc. Block printing is the easiest way of printing among these.

Materials- The materials that we will need for block printing are – a wooden table, a tray for mixing colours, colour, blocks of different shapes, an old blanket, brush, a piece of Markin cloth etc.

Making a block – We can make block with a piece of wood, rubber, sponge, soap, linoleum etc. We can also buy blocks from the market and preserve them for a long time. However, at home we can make blocks with potatoes by giving them different shapes. Besides, ladies finger and water lily also have their own shapes and designs. So, if we use them as blocks it is not needed to give them any extra shape. Rather we can use their original shapes as a kind of design.



printing with ladies finger



Printing with wooden block

Process of printing- Before printing wash and iron the cloth. Then decide and mark the places of the cloth for printing. Lay an old blanket and a newspaper out on a wooden table. Now finally lay the cloth out on them. We can get ready made colour in the market. Now, apply colour carefully on the block and press it hard on the cloth. Thus, in this way, we can print our clothes. After printing the cloth dry it in shadow and then finally iron the cloth.

Task– Make blocks with rubber or with some natural elements. Print a piece of cloth in your classroom using these blocks.

Lesson 3- Painting, Embroidery

We can make a simple cloth extraordinary by painting it with colour or by making embroidery on it with threads and needle. There is a discussion below on how we will decorate clothes by painting and embroidering and the things that we will need to do it.

Painting- The elements that we will need for painting are – brushes of different size, colour, medium, table, a thick blanket, cloth, pressing iron. The chief benefit of painting is that we can decorate a cloth with minute and fine designs.



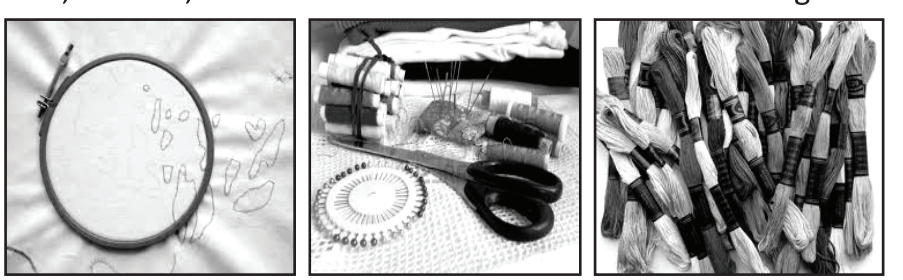
Decorating cloth by painting a picture

Process of painting – We need to remove starch from the cloth by washing it and then iron it. Now draw a picture or diagram on the cloth. Lay a blanket out on a table and then lay the cloth out on it and paint the picture or diagram. We need to dilute the colour by mixing few drops of medium if the colour is thick. However, the colour should not be too diluted.

After painting dry the colour in shadow and then iron the cloth. We should put a thin piece of cloth on the painted area while ironing it. By using painting we can make our dresses, wall mats and other household decorative things more attractive.

Task- Draw a diagram or design on a piece of cloth and paint it.

Embroidery – Embroidery plays a great role in decorating our clothes. We surely know what embroidery is. Embroidery is a pattern or picture consisting of different kinds of stitches that are directly sewn by threads and needle onto cloth. Embroidery is used on the cloth traditionally for a long time. In the older days, raw materials for embroidery were pure silk thread, threads made of gold and silver, expensive pearls and other gems etc. Now a days, simple raw materials are used for embroidery. For example, threads of different colours, small sparkling objects of silvery or golden colour, small mirrors, beads etc. Moreover, needles of different shapes, frame, paper, carbon paper, pencil, ruler, eraser, scissors, cloth etc. are also needed for embroidering.



Necessary equipment for hand embroidery

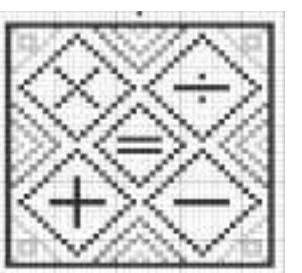
Process- We do not need to wash the cloth before embroidering. But we need to think about the neatness while embroidering. At first, draw a picture or a design with a lighter ink on the cloth. Then fix the cloth in a frame and complete embroidering by sewing different stitches with threads and needle. Stitches should not be too tight or loose. Finally, if we iron the cloth on the other side of the embroidery the stitches will be set on the cloth nicely and the embroidery will look smooth.


Hand embroidery

We need to have a clear idea about different kinds of stitches before embroidering. Before embroidering we should practice and develop our skills on it. It is necessary to be careful in using right stitch in the different parts of a design or pattern. We also need to be careful in selecting the colour of the threads. For example, to sew a flower we may select threads of different colours, e.g., red, pink, yellow etc. and to sew a leaf we may use threads of green colour. We have already learnt about some stiches in class Six. Some more stitches are described here.

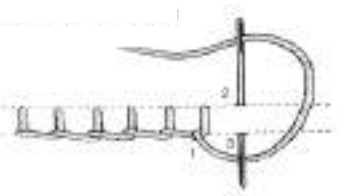
Cross stitch – Beautiful designs can be created on a coarse cloth made of jute by using this stitch. There will be some slanted and parallel stitches sewed in a line (see the picture). Now make crosses sewing across the previous stitches (see the picture).


Cross stitch


Design of cross stitch

Lesson 4 – Blanket, Herring-bone, Feather, Satin, Pikinese and French Knot

Blanket stitch – Blanket stitch is done by making the needlework from left to right. The needle is inserted along the design from the top and the sharp point of the needle is then extracted halfway at the bottom/open-end of the design and then the whole needle is taken out of the fabric while placing the thread upon the needle. This stitch is used for sewing the open border of a blanket, on the edge of a handkerchiefs and cuffs, on button holes etc.



Blanket stitch

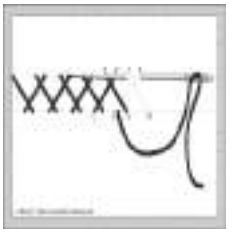
Task – Make a design on a piece of cloth with cross stitch and use blanket stitch on its edge.

Herring bone stitch

This stitch looks like the bone of a Herring fish. This is why it is called herring bone stitch. It is almost like a cross stitch. If you follow the picture you will gradually get the design.



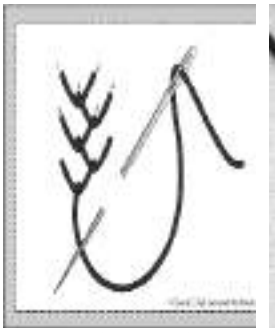
Herring bone stitch



Herring bone stitch

Feather stitch

This stitch looks like the feather of a bird. This is why, it is called feather stitch. It can be made by sewing blanket stitch slanting towards the right. It can be also sewed by giving 3 to 4 button stitches on the same side.



Feather stitch



Feather stitch

This stitch is used in the collar of children's dresses, on the edge of sleeves, tray cloth, edge of bed covers etc.

Task – Sew herring bone and feather stitch on the edge of a handkerchief.

Satin stitch – This stitch is used to cover the inner side of a flower, leaf etc. Usually it is used to cover the inner side of a design. This stitch remains same and looks similar on either side of a cloth. Sometimes it is sewed by making a border of a design with run stitch and then covering inner side of the design with long thick stitches.



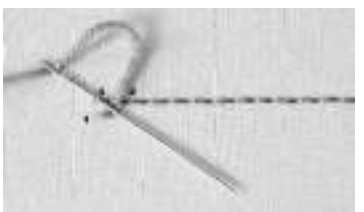
Satin stitch

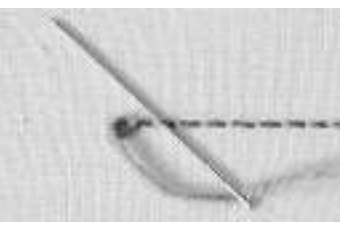


Satin stitch

Task– Draw a design as you like and sew that design with satin stitch.

Pikinese stitch – At first you should sew 'bokheya' stitch of the same size in a line. Then in the second stage you start sewing from the other side of the cloth and take the needle up to the right side of the cloth (as shown in the picture). Take the needle out through the second stitch and bring it back through the first one. Now take the needle out through the third stitch and again bring it back through the second stitch. In this way the knots created around the 'bokheya' stitch will go from the left to the right and make a beautiful design.







Pikinese stitch

Task– Sew 'bokheya stitch on a piece of cloth and practice pikinese stitch using threads of different colours.

French knot- To make French knot bring the thread out at the required position, hold the thread down where it emerges with the left thumb and encircle the thread a couple of times around the needle. Still holding the twisted thread firmly with your thumb, take the needle out of the twist and back to the starting point and insert it close to where the thread first emerged (not in the exact place or it will simply pull back through).



French knot



Designs of French knot

Pull the needle through to the back, leaving a small knot on the surface. A small flower will be sewed if you do like this twice or thrice.

Task - Draw a design on a piece of cloth and make flowers using French knots.

Exercise

Multiple Choice Questions

1. What are the necessary elements for embroidery?

   a. threads, small sparkling objects of silvery or golden colour, beads

   b. colour, brush, medium

   c. caustic soda, salt, glue

   d. brush, tray for colour, block

2. Which stitch is usually used to make a design on a coarse cloth made of jute?

a. pikinese stitch
b. satin stitch
c. blanket stitch
d. cross stitch

Read the stem below and answer to the question number 3 and 4

Mrs. Neela Begum bought a dress for her daughter, Rodela, and sewed some small sparkling objects of silvery and golden colour, some small mirrors and beads on the dress.

3. Rodela's dress was decorated by–

a. printing
b. painting
c. dyeing
d. embroidering

4. As a result of decorating Rodela's dress it will be –

i. attractive
ii. ornamented
iii. with a range of variety

Which one of the following is correct?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii and iii

Creative Question



picture-1



picture-2

a. What is embroidery?

b. How will you make a simple dress extraordinary? Describe.

c. How many ways or process can be used to decorate the dress in picture-1? Explain.

d. 'Picture 2 is more suitable to bring variety in clothes.'-do you agree with this? Give reasons for your answer.

Short-Answer Questions

1. What is decorative design?
2. Explain the necessity of design in clothes.
3. Why are cotton clothes comfortable in all seasons? Explain.

Chapter Fifteen
Orderliness in Clothing and Personality

Lesson 1- Personality



If we notice carefully we will find that everyone in our class has some special kind of quality. This is why we are different from each other. Personality is the total characteristics of an individual. Our personality is expressed through our physical appearance, voice, mood, behavior, emotion etc. A person can impress or attract others with a pleasant personality. On the other hand, people moves away from a person of weak personality.

If we notice a little bit carefully, we will find that a person's physical beauty, confidence and eagerness to work are reflected through the way of walking and gesture-posture of speaking of a man of great personality. We are born with our own characteristics like other people in the world. However, as we grow up we will be able to build a healthy, beautiful and attractive personality gradually by becoming self-independent and adapting ourselves with the environment around us. A man of great personality is able to fight any odds of life with a healthy body and a sound mind. A person who is unhealthy cannot express his personality properly, because a person's tiredness is expressed in his work and gestures when he or she is not physically well. Thus, we can understand that we can build up and attractive personality through the complete development of our body and mind.



Sick body

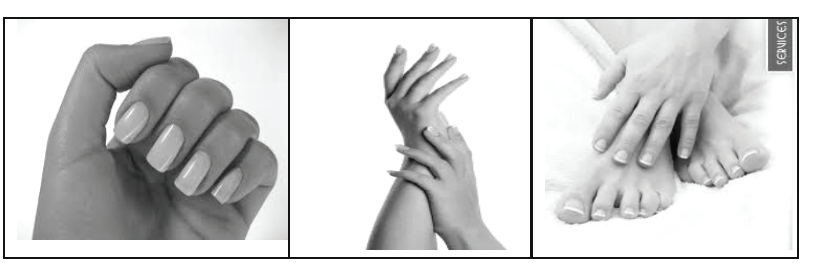


Healthy body

The social value of personality is very high. We can achieve our dignity, honour, social status etc. through an attractive personality. So side by side achieving success in our life we have to be a person of great personality to get everyone's acceptance in the society. So, we should strive to get this. Thus, we can make a healthy and attractive personality by taking care of our health, maintaining discipline, making ourselves independent, keeping ourselves tidy and adapting ourselves with different situations.

Can you tell what does neatness mean? What is the relation of it with personality? Surely we make us neat and clean before we come to the school. Neatness means cleanliness and tidiness. A great personality can be expressed with a clean body, by wearing suitable and appropriate dress, with moderate postures and gestures of movements. The movement and tidiness in clothes of this kind of man help to make every sphere of life easy.

We should always remember that we cannot get neatness with an unclean body or by wearing expensive but untidy clothes. If we want to be pleasant we need to have a sound health. On the other hand, disordered hair, untidy teeth, nails, arms and feet always create annoyance among others in any situation. This is why, we need to keep ourselves tidy by taking bath we should take care of our arms, feet, hair and nails.



Taking care of nails, arms, hair and feet to maintain cleanliness

It is very important to wear appropriate clothes to maintain cleanliness. That is why we will select our dresses considering the season and our cultural tradition. For example, in a tropical country like ours we should select such dresses to wear which will absorb sweat easily, will be easy to wash and iron. Beside this, we will maintain the hairstyle according to our physical appearance. We will never use too much make-up. Too much make-up damages our skin. We will always wear our dresses considering our colour complexion, height, personality, taste and environment. As a result, we will be confident, cheerful and motivated to work.

Task – How will you maintain orderliness in clothing to develop and express your personality ? Present it in a group.

Lesson 2- Relationship of Dresses with Personality

A person's personality is his or her own characteristics or behaviour. There is a close relationship between personality and the clothes that we wear. Beautiful dress shows good taste of mind and increases one's confidence. Thus, dress and personality compliments each other. However, we need to know which kind of dress is suitable for a kind of person. And to know this we must know ourselves. That means, we have to have clear ideas about our colour complexion, height, weight, physical appearance, age, shape of our face etc. We should select and wear our dresses considering all these factors. Besides, we need to be careful about some other factors. Here is a discussion on them.

1. Print of a dress – Shape and size (small or big) of a design of a printed dress create an impression on our personality. A fat person looks fatter with a dress with large (big) printed design. It is more suitable for a person who is fat and short in height to wear dress with small printed design.



Dress with large printed design



Dress with small printed design

2. Colour of dress – We can increase the beauty of our appearance by selecting appropriate colour for dresses. A person's personality becomes faded if the colour of dress she/he is wearing does not suit to her/his physical appearance. We should select colour of our dresses considering our complexion, colour of our hair and eyes.



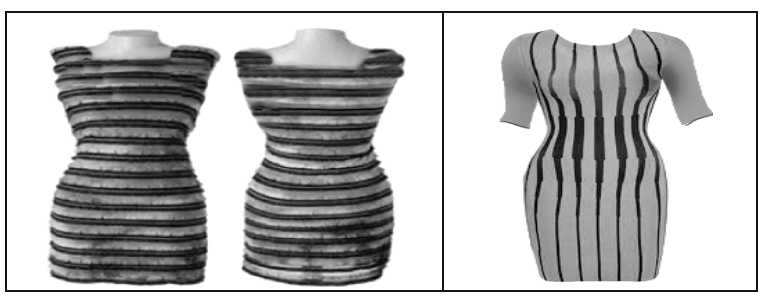
Dress with warm colour



Dress with light colour

A person with fair complexion can select any colour but it is better to choose light colour to wear for a person with dark complexion. Red, yellow, orange are considered as bright colours and they can be seen from a distance. Power to diffuse heat of these colours is high so they are considered as warm colours. This is why, we feel warmer if we wear these colours during summer. A slim person apparently looks fat wearing dresses of these colours. On the other hand, blue, green, bluish green etc. are light and soothing colours and they seem to be cool. So we can select dresses of these colours to wear in summer.

3. Dresses with horizontal and vertical stripes- We need to be careful in selecting dresses with 'checks' and 'stripes'. As dresses with horizontal lines or stripes apparently make the shape of a body larger. On the other hand, a tall man apparently looks shorter if he wears a dress with vertical stripes.



Effect of horizontal and vertical stripes on a dress

4. Shape of a dress - Shape of a dress can have effects on the shape of the body. It is more suitable for a slim person to wear loose dress with full sleeves and small neck. On the other hand, a fat person will look less fatty, if he wears tight dress with large neck and short sleeves.

5. Tidiness of dresses- In order to express our personality our dresses should be appropriate, suitable as well as tidy. We have known earlier that an untidy dress creates annoyance among others even if it is expensive. Untidiness never makes a personality attractive.

5. Social norms- We should be careful about the social norms and rules to make the personality attractive. It is better not to wear a dress which is not acceptable to the society, such kind of dress never expresses the beauty of a personality.

Finally, if we wear dresses, jewelleries, make-up considering the place, type of a program and also according to our ability, it will give us contentment and people will praise us at the same time.

Task– Write the relationship between personality and the design of the cloth.

Exercise

Multiple Choice Questions

1. Dresses with which sleeves are suitable for a slim person?

a. short sleeves b. full sleeves

c. three quarter d. sleeveless

2. What will happen if you select your dress considering the kind of ceremony or program-

i. you will get others' compliment.

ii. it will help you express your personality.

iii. you will be confident.

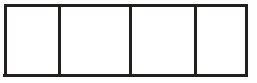
Which one of the following is correct?

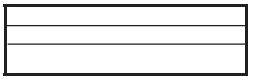
a. i and ii
b. i and iii
c. ii and iii
d. i, ii, and iii

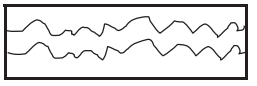
Read the following stem and answer to the question number 3 and 4

Joba and Reba are two sisters. Joba is taller. On the other hand, Reba is shorter and her complexion is not so fair. This is why, Reba is careful in selecting her dresses.

3. With which kind of stripes Reba will apparently look shorter?

i. 

ii. 

iii. 

Which one of the following is correct?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii, and iii

4. Which of the following is more suitable for Reba's dress?

   a. dress with dark colour and large print

   b. dress with light colour and large print

   c. dress with light colour and small print

   d. dress with dark colour and large print

Creative Questions

Kamol and Karina are siblings. In complexion and physical gesture they are opposite to each other. Karina is dark and Kamol is fat. Regarding dress, kamol prefers light colours and small prints. Karina likes loose and bright coloured dress. They consider the design and comfort of a dress more than its price.

a. What is Personality?
b. 'Dress and Personality compliments to each other.'–explain.
c. Why does Karina give importance to bright colour in selecting her dress? Explain.
d. Considering the relation between dress and personality; how much perfect combination is shown by Kamol and Karina in choosing dress?

Short-Answer Questions

1. What does coordinate clothing mean?
2. How can clothing designs reflect personality?
3. What is meant by neatness?

The End

2026 Academic Year

Class Seven : Home Science

সুস্থ দেহ সুন্দর মন।



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