

Home Science

Class Six



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Home Science
Class Six

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PREFACE

Education is the pre-requisite for the holistic development in our national life. To cope with the challenges of the fast changing world and to lead Bangladesh to the doorstep of development and prosperity, a well educated and skilled population is needed. In order to build up a nation imbued with the spirit of the Language Movement and our Liberation War, the secondary education aims at flourishing the talents and prospects inherent in the learners. Besides, the other aims also include expansion and consolidation of the basic knowledge and skills of the learners acquired at the primary level in order to make them fit for entry into higher education.

The aims of secondary education further emphasise on developing these learners as skilled and competent citizens of the country through the process of acquiring knowledge at the backdrop of socio-economic, cultural and environmental settings.

Keeping the aims and objectives of National Education Policy 2010 ahead, the curriculum at the secondary level has been revised. In the revised curriculum the national aims, objectives and contemporary needs have been reflected. Along with these expected learning outcomes have been determined based on the learner's age, merit and level of acquisition. Besides, efforts have been made to raise, starting from the level of moral and humanistic values down to awareness on history and tradition, the spirit of the Liberation War, passion for art-culture and literature, patriotism, feelings for nature and equal dignity to all irrespective of religions, caste, creed and sex. Efforts have also been made to apply science in all spheres of our life in order to build a nation advanced in science. Attempts are also there to make the learner capable of implementing the goals envisioned in Digital Bangladesh-2021.

In the light of the present curriculum almost all the textbooks at the secondary level have been introduced. While introducing the textbooks, the capacity, aptitude and prior knowledge of the learners have been taken into utmost consideration. While selecting the contexts and their presentation special attention has been given on the expansion of the learner's creative faculty. Adding learning outcomes at the beginning of each chapter, hints about the achievable knowledge of the learners have been given. By adding variety of activities, creative and other questions evaluation has also been made creative.

Home Science is a life oriented and vocational education. It makes students expert and tactful to reach ultimate goal by using limited asset, helps them fight against unexpected incidents in home and outside by solving various problems in home environment. The book is appropriately developed considering the facts to meet the challenge of time.

Considering the challenges and commitments of 21st century and following the revised curriculum the textbook has been written. Therefore, we welcome with our highest consideration any suggestions, both constructive and rationale as well for the further improvement of the book. Amidst huge activities needed for introducing a textbook, this one has been written within a very short span of time frame. We will continue our effort to make the next edition of this book more beautiful, decent and free from any types of errors.

We appreciate the endeavours of those who assisted very sincerely with their merit and hard work in the process of writing, translating, editing, illustration, introducing sample questions and printing of the book. We hope the book will ensure joyful reading and achievement of expected skills from the learners.

Prof. Md. Mostafa Kamaluddin

Chairman

National Curriculum and Textbook Board, Dhaka.

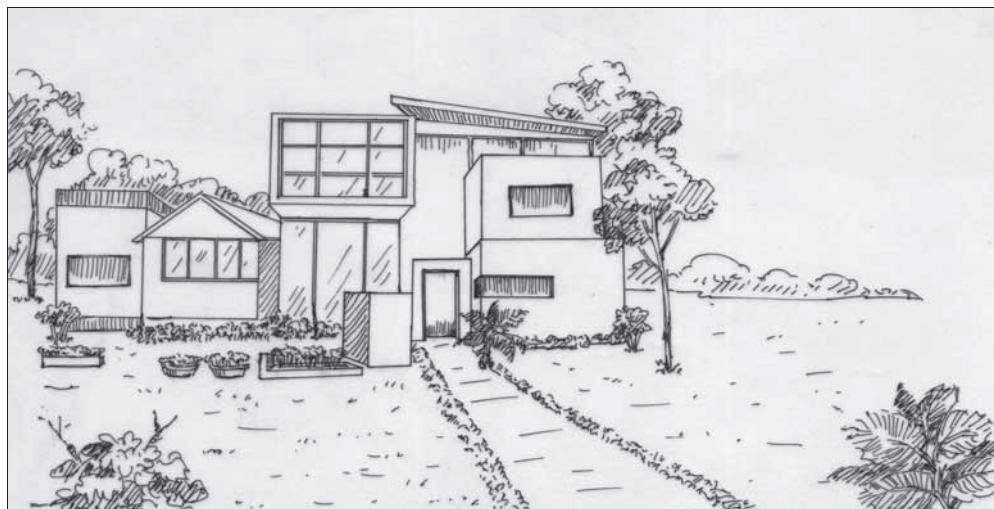
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Section - A

Home and Home Management

Home is the first environment for human beings where they live in. Such an environment could be upgraded through Home Management. It is an important responsibility of all of us to keep the environment clean both within and outside our homes. Keeping our homes neat and tidy needs every household item to be kept in an orderly manner at respective places where they are suited best. Every work bears success if it follows a correct decision and an effective planning.



At the end of this section we will be able to –

- explain the concept of Home and Home Environment;
- evaluate the planning of Home Management;
- identify places in the home where work needs to be done;
- explain the concept of Home Management;
- explain the concept of how to keep Home and Home Environment clean;
- explain the importance of planting trees within the home environment;
- learn where we need to keep various articles after their use; and
- explain the importance of decision-making on various aspects of Home Management.

CHAPTER I

Preliminary Concepts of Home and Home Environment

Lesson 1 – Home and Home Environment

Home – You are certainly aware that human beings of the primitive ages did not live in homes as of today. They were used to select safe shelters to protect themselves from being fallen prey to ferocious wild animals and also from storms, rains, heat and cold. Such shelters of the primitive human beings had been in forests and bushes, on and above the branches of large trees, within hill-caves, etc.

Thereafter, as human beings learnt tilling the land and sowing seeds for production of their food-grains, fruits, etc., they began to live in groups and as families and groups of families. Gradually, they felt the necessity of homes for the members of their families to live in. Consequently, they learnt to construct their homes. Thus, the concept of ‘Home’ was initiated.

We may term ‘Home’ as a place where we live along with all the members of our family. Home is among our basic needs. All of us remain busy throughout the day in various activities toward fulfilling our various needs and come back home for rest and comfort after completion of such activities. As a result, we get relieved of all the weariness that accumulates within us due to our day-long activities. It is within the home that our needs of food, textile and clothing, education, health, security, recreation, etc. Family bondage, too, gets stronger here as a result of existing sense of mutual respect, love and cooperation among the family members.

Home Environment – The first environment of each of human child’s life is Home. Home Environment is comprised of every thing within and around the home. Home Environment grows-up with all the internal and external portions of the home. Happiness, peace and physical as well as mental health of the family members are dependant upon Home Environment.

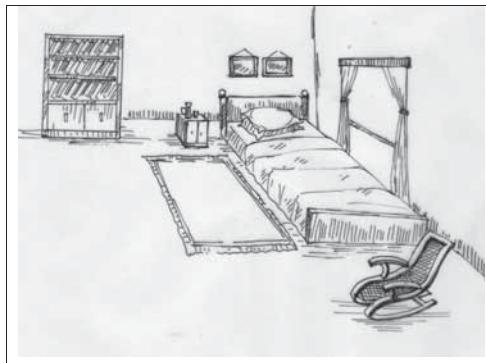
Home Environment encompasses –

- Various rooms
- Roof/Thatch
- Verandah
- Courtyard, compound, etc.

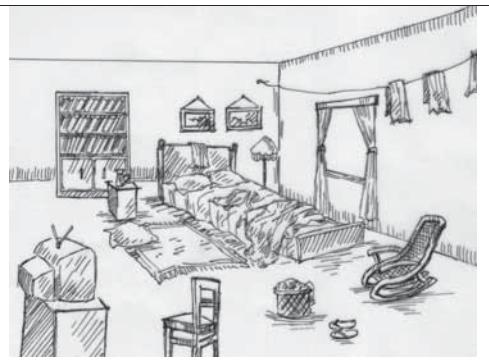
A good Home Environment is necessary for all-round development of the family members. Individual lives are highly influenced by Home Environment as all of us live within it from childhood to old age. It is from this Home Environment that we develop our habits, tastes, sense of responsibility and sense of duty. Our participation in various activities is based upon the Home Environment within which we stay. In this way we develop our sense of responsibility and sense of duty. It is for this reason that Home Environment, too, needs to be neat and tidy, healthy and well-disciplined. This will lead the home individuals grow-up in a healthy and well-disciplined manner and help build an ideal nation. All the aspects of Home Environment need to be neat and clean and free of pollution. Hence, provisions in the home toward meeting these needs should be –

- Entry of sunlight and air ventilation.
- Ensuring supply of pure potable water.

- Keeping the home, both inside and outside, regularly clean.
- Ensuring safe disposal of waste water and human wastes.
- Ensuring provision for outlet of smoke generated in the home.
- Planting various sizes of trees within the home courtyard, if there is sufficient space for such plantation and, if necessary, in tubs.



Neat and disciplined Home Environment



Dirty and untidy Home Environment

Types of homes in urban and rural areas are different. Brick-built urban homes are constructed with bricks, sand, cement, steel rods, etc. Whereas, rural homes are made of tin, wood, bamboo, clay, etc.

Task 1 - Make a list of which activities you can perform in safeguarding your Home Environment.

Task 2 - Make a comparison between a rural home and an urban home.

Lesson 2 – Internal Space Arrangement of a Home

Going through the previous lesson, we have already learnt that there are various types of spaces within our home. Starting from the entry doorway to verandah, various rooms, garden, portico, etc., are the various spaces included in a home. Various types of activities are performed at specific spaces in a home depending upon the activity types. It is upon the basis of such various types of activities that the arrangement of various rooms or spaces of the home is made. Examples of these various types of activities could be cooking, dining, bathing, cleansing, study, dressing and make-up, rest and sleeping, guest entertainment, etc. Each of these types of activities is different from the rest and, as such, places or spaces for these activities are also different.

The internal spaces of a home can be classified into three broad groups as follows, depending upon the above various activities –

1. Formal space/place;
2. Informal space/place
3. Working space/place.

Formal Space/Place – Spaces/places where formal activities are performed are known as Formal Spaces/Places. In such places or spaces we observe and follow various formalities. We receive and entertain guests, friends visiting our home in such formal spaces or formal places. Sometimes we make arrangement for their stay as well.

Such spaces/places include –

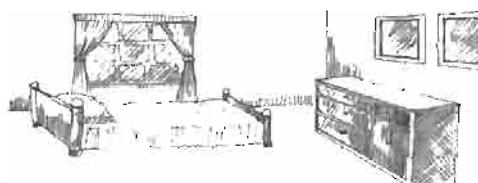
- Drawing Room
- Dining Room
- Guest Room
- Portico
- Driveway (within the home premises)
- Stairs and Staircase



A Formal Space/Place

Informal Space/Place – Spaces/places where we perform personal or private activities are known as Informal Spaces/Places. We take rest, sleep, study, undergo dressing and make-up in such spaces or places. These spaces or places are involved in various activities performed by the family-members only. Hence, privacy is maintained. Such informal spaces/places include –

- Bed Room
- Study Room
- Dressing and Make-up Room.



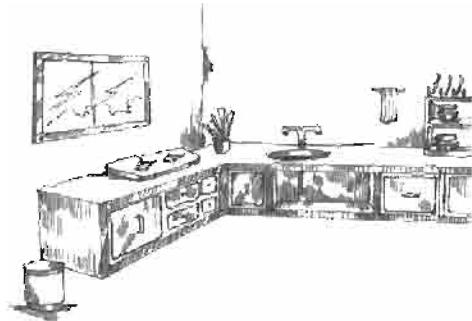
An Informal Space/Place

Working Space/Place – Various types of activities, such as, cooking, various types of cleansing, keeping and maintenance of various articles, etc., of the home are done in these spaces or places.

Cooking process consists of preparation for cooking, i.e., activities starting with cutting fish, meat and vegetables, sorting out undesirable element from articles to be cooked, washing and cleansing, grinding or crushing various spices with mortar and pestle, etc., to actual cooking. Besides, keeping utensils, drinking glasses, jugs, spoons, knives, forks, table-mats, etc., in appropriate places also falls within the above activities.

Cleansing process includes activities starting from cleansing of cooking equipment to washing of clothing, ironing, floor mopping or wiping, cleansing of ceilings, grills and glasses of doors and windows, bathrooms, toilets, room courtyard, etc. Work spaces/places are

- Kitchen
- Bathrooms and Toilets
- Store, etc.



Working Space/Place

Task 1 – How would you receive your friend visiting your home along with his/her family?

Task 2 – Identify the informal places of your home and write what activities are done in those places.

Lesson 3 – Keeping and Preserving Necessary Articles at Proper Places

Shahed makes his own bed after getting up from sleep everyday. After coming back from school, he keeps his school bag, text books, exercise book, shirt and trouser, shoes and socks, etc., in appropriate places. He keeps his text books, exercise books, pencils, pens, etc., in an orderly manner after completion of his studies everyday. After the afternoon games, he keeps his game-articles in proper places. For this reason, he gets everything at his fingers' end when necessity arises. Each article has its proper places for use and keeping. Hence, all the members of the family need to be habituated in keeping various articles in proper places in an orderly and disciplined manner after their use. Articles get long-lasting through their careful keeping in appropriate places and keep the home environment neat and tidy. Such a habit of family members enables the article to be easily available within reach when necessary. As a result, there is no unnecessary wastage of time and energy in locating the articles. Besides, there are risks of various accidents arising out due to haphazardly kept articles.

We use quite a number of types of equipment and ingredients for our convenience in doing various types of works in our home. Examples of such equipment and ingredients are – various provisions and furnishings, clothing and dresses, articles or ingredients of reading and writing, toiletries, First-aid materials, etc.

Various Provisions and Furnishings – There are quite a number of types of provisions and furnishings in the home. Examples are – cooking equipment which include cooking pots (କୁଣ୍ଡ), frying pans (ପାତାଳ), cooking spatula (ପାତାଳ), spoons, local kitchen device for cutting (ବିନାଟି), knives, pressure cooker, blender, oven, burners, etc. Among these appliances, the ones that are in daily use are arranged in the kitchen shelves within easy reach. The appliances which are not in regular and daily use are kept in cabinets or in shelves above the ones where appliances of daily use are kept. We may arrange articles that are used in serving meals plates, drinking glasses, jugs, spoons, forks, trays, etc., in the shelves within the dining room.

Among the sewing equipment, we keep the sewing machine at a convenient location within our bedroom, while other items, such as, needles, scissors, measuring tape, buttons, thread, etc., are together kept within a box near the machine.

Articles and appliances used in gardening include plant watering device, water pipe, crowbar, spade, chopper, scissors, etc. Such articles are made absolutely clean after their use and are kept on a defined shelf or in the store room.

Articles and appliances used for laundry purposes, such as, buckets, mugs, washing machine are kept in the bathroom. Iron could be kept on the ironing board.

Articles and appliances involved in cleaning purposes, such as, hard brooms, soft brooms, floor-mopping articles, vacuum cleaner, etc., are kept at a corner of the store room.

Garments and Clothing – We keep the regularly and daily used garments and clothing on dress-stand or clothes-horse while those to be worn during specific occasions or seasonal ones are kept in almirahs or in chest of drawers. Besides, it is necessary to develop the habit of keeping shoes, sandals, socks, etc., at definite places, e.g., on the lowest shelf of dress-stand or clothes-horse.

Educational Ingredients – We keep educational ingredients, such as, text books, exercise books, pens, etc., in a shelf nearest to the study-table in an organized manner. Such items can also be kept on the table in case there is no shelf in the vicinity.



Toiletries – We use various toiletries for our make-up. These include – toilet soaps, shampoos, combs, snoes and face powders, cold cream, lipstick, perfumes, shaving brush, shaving razor, etc. These can conveniently be arranged on the dressing table or in a suitable location in the dressing room.

First Aid Materials – The First Aid materials are – cotton, bandages, Dettol, hot or cold water bag, spirit, Burnol, pain relievers, antiseptic powder or ointment, etc. These materials are kept inside an specific box, known as ‘First Aid Box’. The First Aid Box needs to kept on an elevated place so that everyone is able to see and get aware of its presence.

Miscellaneous – Other necessary articles besides the above are – old newspapers, magazines, toys, etc. These articles need to be brought together and kept inside a box so that these do not remain scattered in different places of the home. If possible, a cushion could be placed over the box for use as a sitting stool in the drawing room.

Task 1 – Make a list of articles you use daily and places you keep them after use.

Task 2 – Write what materials you think should be kept inside the First Aid Box of your home.

Lesson 4 – Role of Trees in Protecting Home Environment

Shumi has made a garden of vegetables and fruits in the small courtyard of their home with the help of her father and planted flower-plants in tubs along the verandah. She waters the plants everyday and clears weeds from them. She harvests the vegetables and fruits herself. Fresh vegetables and fruits help all the members of the family maintain a good health and a cheerful mind.

We can follow Shumi and plant various kinds of trees toward protecting and upgrading our respective homes and home environment. If we are located in urban areas, we may plant various kinds of trees in tubs and arrange these along the balconies and on the roof-tops of our apartment houses. We get quite a number of benefits from trees. These are –

- oxygen that we breathe-in;
- nutrition from vegetables and fruits;
- flower-plants for enhancing the beauty of our home;
- large trees providing shadows for our home and making the environment comfortable.

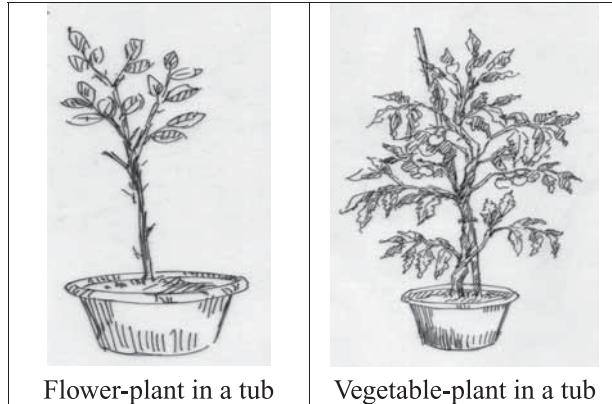
Many houses are found to have open courtyards. Such courtyards may be cleaned and used for making flower-garden in the one in front of the house and vegetable and fruit garden in the one behind.

Plantation in Tubs and along the Courtyards and Its Care

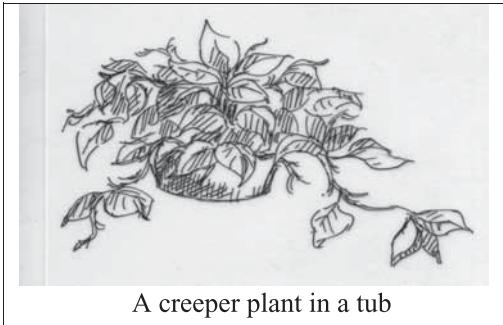
Plantation in tubs and along courtyards can be made in two ways –

- sowing seeds; and
- planting saplings.

Whichever of the above ways of plantation is chosen, the site is to be developed first. In case of courtyards, it should be made free of weeds and the land should be levelled. Thereafter, the soil is to be made loose by means of spades. Cow-dung or organic manure is to be mixed with the soil to make it fertile. The next step is to sow seeds or to plant saplings. All types of trees, large or small, could be planted in the courtyard. We can make plantation of mango-trees, jackfruit-trees, coconut-trees, betel-nut-trees, guava-trees, etc., in our home-courtyards. Besides, various seasonal vegetables can also be cultivated here.



In absence of courtyards, plantation could be made of various vegetables, grafted trees and various seasonal flowers in tubs of various sizes, big and small. Regular watering is needed, both in the morning and in the afternoon, as seedlings or saplings come out.



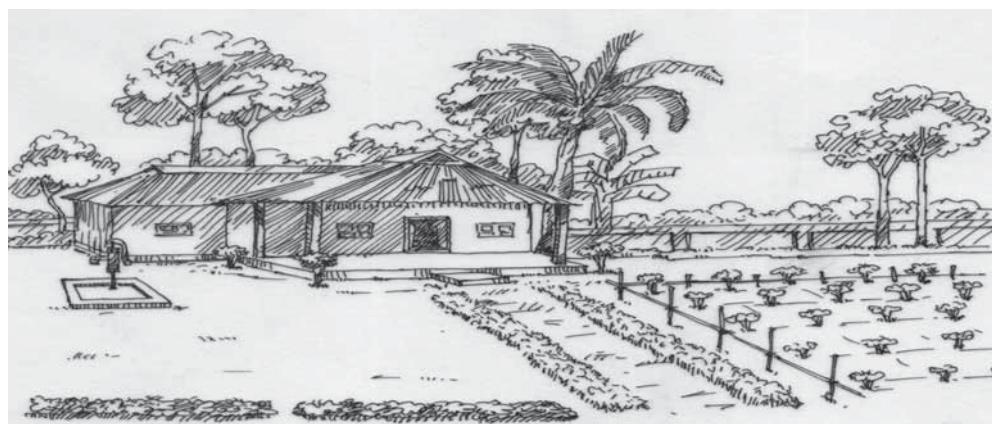
A creeper plant in a tub

There should be arrangement of drainage of water, too. Sometimes the soil at the base of the saplings needs to be loosened with the help of some spoon- or spatula-like appliances to help sun-rays and air get in and the soil retain its moisture. Weeds, if found growing at the base of the plants, should be immediately removed, as it retards plant-growth.

Various types of insects, more than often, invade and cause harm to the plants. During such occasions, insecticides could be applied.

Thus, you can, certainly, understand that a good and healthy plant or tree needs –

- lively sapling and well-bred seeds
- light, air and water
- manured and good soil
- regular care.



A beautiful garden on home courtyard

Task 1 – Describe procedure of planting a fruit-bearing tree in a tub.

Task 2 – What activities do you think need to be done in taking regular care of plants ant trees?

Exercise

Multiple choice questions

1. Which of the following is a formal place?

- | | |
|----------------|------------------|
| a. Dining room | b. Bedroom |
| c. Study room | d. Dressing room |

2. Causes that led primitive human beings to make families

- i. Security of their shelters
- ii. Advantages of collective cultivation
- iii. Getting mutual cooperation.

Which of the following is correct?

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

Read the following paragraph and answer to questions 3 and 4

Anita bought a chilli sapling from a famous nursery. She planted the sapling on a soil-filled tub and kept it inside her study room. Simultaneously, she learnt what type of insecticide was needed to contain diseases of chilli plants. She watered the plant regularly. In spite of the above, the chilli plant did not grow properly and chillies, too, did not come out.

3. What had been the causes behind poor growth of the plant?

- a. Lack of proper insecticide
- b. Lack of adequate light and air
- c. Planting ill-bred sapling
- d. Planting sapling in a tub

4. Proper growth of Anita's plant needs

- i. Use of adequate fertilizer
- ii. Keeping the tub on the verandah
- iii. Increasing the amount of water

Which of the following is correct?

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

Creative questions

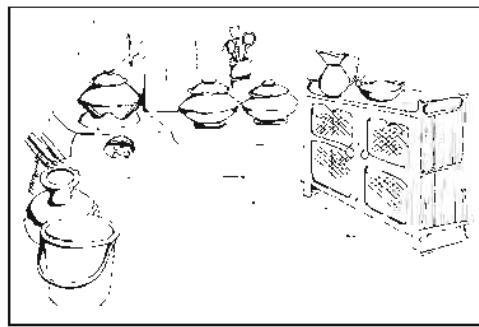
1. Raiyan's mother has to purchase exercise books, pencils, erasers, playing balls, etc., for Raiyan every time after a few days. One day Raiyan came back from the playground and kept his bat, ball and shoes scattered here and there. This made Rupa, his younger sister stumble and get injury on her forehead.

- a. What is the first environment of child's life?
- b. What is meant by First Aid?
- c. Which habit of Raiyan made Rupa injured? Explain.
- d. What impact does such type of habit of Raiyan have on our everyday life? Explain.

2.



Pic. 1:



Pic. 2:

- a. What needs to be done to increase soil fertility?
- b. What do you mean by informal place?
- c. What is the home environment at Picture 2? Explain.
- d. Home environment at Picture 1 is the main obstacle to healthy development of family members. Explain.

CHAPTER II

HOME MANAGEMENT

Lesson 1 – Steps Involved in Home Management

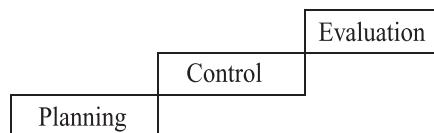
You have, by this time, learnt about what home and its environment are. We all like our home to be peaceful and well-disciplined. It is our home where all of our hopes and aspirations are fulfilled and toward ensuring such fulfilment various activities are to be done in our home. Proper management is necessary for the activities to take place in correct manner. You might have certainly taken note of the numerous types of activities being done in your home. Have you ever thought about –

- Who is or who are doing these activities?
- Why are these activities being done?
- How are the activities being done?

While trying to find out answers to these questions, you will come to know that these activities are being done collectively by various members of the family. They work together toward achieving the goal of the family using their resources comprising time, intelligence, money, labour, etc. Each family has a number of goals or aims for realization of which it finds its means and proceeds accordingly. Firstly, the family members select the family goals and make their plan to achieve the selected goals. They think how to proceed with and to implement the plan. Thereafter, they complete the process together. Finally, they evaluate the results to see whether they are successful or not.

In other words, it can be said that planning, control and evaluation of the activities involving use of various resources toward the realization of family goals and objectives are, together, called as Home Management.

Home Management, hence, is a set of activities belonging to several steps involved in it and is a continuous process of work. Home Management keeps all the activities of the house dynamic. The steps involved in Home Management, diagrammatically, are as under:



The first step in Home Management process is ‘Planning’ . Knowing and thinking about ‘why’ and ‘how’ a work will be done and ‘who’ will do the work, together, comprise the ‘Planning Process’ . Planning will make one easily understand the type of work and time of work.

This first step, pre-decides the nature and the type of work to be done, involvement of the type and quantity of resources, who is to be entrusted with the work, etc. As a result much convenience is experienced in doing the work. Planning is made keeping conveniences and inconveniences of all family members. It should be simple so that all the family members can understand it. It should be of such a type that favours easy and proper implementation.

The second step in Home Management process is ‘Control’. Control is necessary toward converting ‘Planning’ into real work. This is the most important step as active participation in the planned work is done here and the work is accomplished according to schedule. Accomplishing planned work becomes easy if we have prior knowledge of ‘what’ and ‘how’ is to be done. During this ‘Control’ step, one needs to ensure whether or not everyone performs his own part of work or anyone is facing any kind of inconvenience in performing his/her own part of work.

The last step in Home Management process is ‘Evaluation’. ‘Evaluation’ is the verification of the results of the accomplished work. Evaluation indicates whether the work has been a success or a failure. If success is attained, i.e., goal is achieved, undertaking such type of work in future will be much easier. In case of failure, work procedure could be corrected through identifying the reasons of failure. ‘Evaluation’, hence helps identify procedural mistakes and makes us cautious in undertaking future works properly.

Task 1 - One of the objectives of your family is to make you educated. What have you done toward realizing the objective?

Task 2 - Express in writing what activities have been performed by each of your family members in a single day.

Lesson 2 – Importance of Planning in Home Management

Any work to be done needs prior thinking. Planning is a process which makes us chart the way toward achieving the goal of any work. The first step of the continuous work process is ‘Planning’. It forms the primary basis of any work. Planning makes us decide the sequence of work and ‘when, how’ the work is to be done, etc. Planning makes accomplishing the work easier. Planning of the work needs to be done in writing, so that it can easily be referred to.

Planned Work: Work performed through Planning is known as ‘Planned Work’. Preparation for a planned work is done prior to initiation of the work. As a result, we face much convenience in doing the work with less error and the work is accomplished according to schedule.

Benefits of Planned Work –

- We can have an idea of the next work after completion of a whole day work.
- The work can be accomplished in scheduled time.

- No indiscipline is encountered.
- Perfect usage of recourses – time, energy, money, etc.
- Facilitates success in any type of future work.

Task 1 - Prepare a list of works you do on the day prior to the day when you are to go to the school in the morning.

Unplanned Work: Work done without any pre-thinking is an unplanned work. In other words, unplanned work is just opposite to planned work.

Kalpana is a student of Class VI. She appeared for her Class Examination on Mathematics today. She had talked to her friend over phone after coming home from her school yesterday. She watched television for a pretty long time in the evening. She only drew picture at night after dinner. She thus wasted her time without any cause. As a result, she failed to get any preparation for the next examination. Consequently, she did not fare well in the examination and could not obtain good marks as well.

Time and direction of flow are not fixed in an unplanned work. Such a work does not have any goal or objective. You should bear in mind that without having any goal or objective, you cannot attain success in life. Absence of planning leads to aimless wastage of time. We need to do much work as our live have numerous goals. For this reason, we shall be unable to our work in due course. Unplanned or undisciplined work never brings about any success.

Disadvantages of Unplanned Works

- We are unable to know which works we have to do throughout the day and the sequence of such works.
- No work could be accomplished in scheduled time.
- Every time there is loss of discipline throughout the process of work.
- There is only wastage of time, energy, money, etc.
- We fail to assume how to succeed in any work.
- Absence of planning leads to work failure.

Task 2 – Make a list of works you do with planning and of those without planning .

Lesson 3 – Decision-making in Home Management

We perform various works under normal conditions. At times some changes or issues appear in such normal situations and we need to get adjusted to such changes or issues. We need to find out means, so that the arising issues could be solved. At this stage some relevant questions arise on what we shall do, how we shall solve the issues, whether it could be done by a single person or through collective action. We select the best option.

Speaking precisely, there may be several options of procedures of doing any type of work. We choose the best acceptable option among them through a process known as ‘Decision-making’.

Appropriate decision is of fundamental importance in any kind of work. This is the first step in initiating the work. Appropriate decision thus facilitates achieving the goal that the work envisages. If the decision is inappropriate, reaching the goal becomes impossible. At times we have to make new decisions according to requirement of time and nature of work.

Ramesh wished to go to Cox’s Bazar along with his family during the Winter Vacation. All the members of his family, with prior discussion among themselves, decided to go there by train instead of by air. They took into consideration the fare involved in both the routes and found train-fare to be the less. They found, moreover, that they could be able to see quite a number of places and intimately enjoy the natural beauty along the way. As a result, their journey will be very much pleasant.

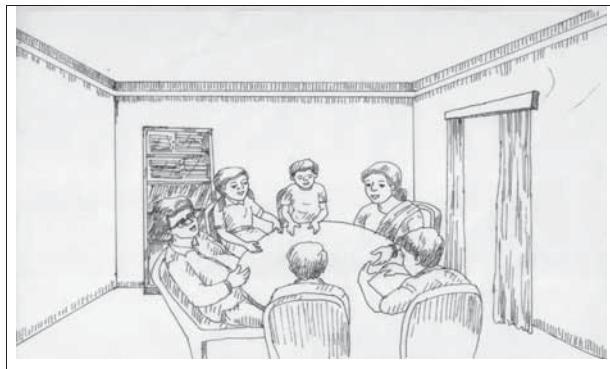
Appropriate decision taken in each step of Home Management and working in line with it, will ensure our success. You, too, may make a decision toward addressing small issues or changes you encounter while doing any work. Such decision is called an ‘Individual Decision’.

Nature of issues or problems faced in a family may, sometimes, be complex as well. In such cases, your mother or your father, or both of them together discuss with all the family members, irrespective of age, and arrive at a decision. The decision arrived at through such a process is known as ‘Collective Decision’. Collective decision is based upon the views of several persons. Hence, several means are projected toward solving complex issues and problems and from among such several means a decision could be arrived at.

There are some systematic means to be followed in sequence in decision-making process. These are –

- Firstly, understand the issue or the problem and get a clear idea.
- Find out some procedures or means of solving the issues or problems.
- There could be several means toward solving a single problem. Give proper thinking on each of these means.
- Accept the means that appears to be the best or through which the problem could be easily solved.

- Do the work in the direction that the accepted means indicates. In other words, you have to translate the decision to work, otherwise, the decision taken as above will be of no benefit.



Members taking a collective decision

Task 1 – How can you take an individual decision toward getting good results in the examination?

Task 2 – Make a plan of flower garden in your school according to a collective decision of your friends.

Exercise

Multiple choice questions

1. What is the last step of Home Management

- a. Planning
- b. Control
- c. Evaluation
- d. Decision-making'

2. Advantages of Planned Work are –

- i. Work is accomplished as scheduled.
- ii. Anything can be done anytime.
- iii. Goal is easily achieved.

Which of the following is correct:

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

Read the following paragraph and answer to questions 3 and 4

Laila reviews any family work after completion to assess its success or failure. This makes everyone appreciate her work.

3. Which of the management steps does Laila follow?

- a. Planning
- b. Evaluation
- c. Control
- d. Decision-making

4. Advantages of Planned Work are –

- i. It makes use of previous experience
- ii. It tries to make correction of errors
- iii. It works according to scheduled time

Which 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. Lamiya and Latif are students of the same Class. Lamiya goes to school everyday with her text books and exercise books according to the day's routine. On the other hand Latif fails to follow his teachers' instructions for coming with text books and exercise book not according to the day's routine.

- a. What is the first step of Home Management?
- b. What is meant by Unplanned Work?
- c. Which of the managements steps is reflected in Lamiya's nature? Explain.
- d. Latif's nature is an obstacle to his success. Explain.

2. Decision has been taken by the school where Dipa and her class-mates read in, toward having this year's Study Tour at the Sunderbans. Some of the students like to go there by bus and others by launch. Some of the students feel inconvenience in travelling by bus and some like to enjoy natural scene while travelling. The teacher advised them not to think about the time and financial aspects and to arrive at a decision to make the Tour enjoyable. Later, the students started for the Sunderbans along with their teachers.

- a. Where do we get 'all of our hopes and aspirations' fulfilled?
- b. What is meant by 'Planning'?
- c. What type of decision did the students make? Explain.
- d. Dipa and her class-mates had correctly followed the steps in their decision-making. – Explain.

CHAPTER III

Cleanliness of Home

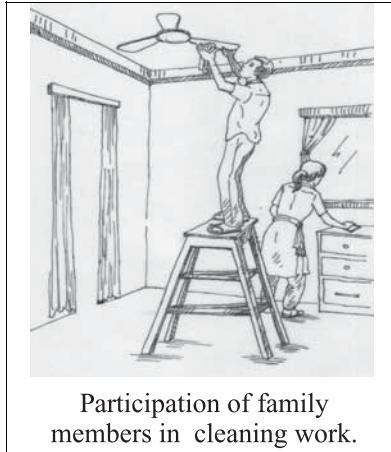
Lesson 1 – Internal Cleanliness of Home

We all like to live in peace and happiness and, to ensure it, we need a healthy home where we can keep our body and mind healthy and full of spirit. We need to pay our attention to cleanliness of the inner and outer spaces of our home to make its environment beautiful, attractive and healthy. A clean home can give us comfort as well as sound body and mind. Every space and every nook and corner of the home need to be regularly cleaned. A home with clean environment is free of disturbances caused by flies, mosquitoes and various other harmful insects and, hence, is free of any type of diseases. Living in pollution-free environment will ensure our sound body and mind.

Cleanliness of Internal Spaces: Internal spaces of the home, i.e., entire spaces within the rooms where we spend most of our time for work and rest need to be cleaned everyday. In this way, internal environment can be kept clean and healthy.

Work needed to be done in the internal spaces are

- brooming, mopping or wiping of room floors;
- cleaning doors and window-grills and glasses;
- cleaning walls, ceilings, electric fans, etc.;
- washing of clothes, bed-sheets, curtains, etc.;
- cleaning sinks, wash-basins, water-tap base;
- dusting, wiping, painting of furniture;
- removing rejected and unnecessary articles;
- cleaning bathrooms, toilets, etc.;
- repair and white-wash of the house.



Some of the cleaning activities are to be done everyday, some of them once in a week, some in a month, or some in a year. Like all other activities, home cleaning, too, needs prior planning.

Internal planning activities may be divided into three groups.

1. Daily Cleaning : Daily Cleaning involves daily brooming, mopping or wiping of all the rooms, verandah, wiping of furniture surfaces, bed-making, arranging text books, exercise books, etc., cleansing of articles of everyday use of the kitchen and other rooms, washing of clothing that are used everyday. Besides, it is necessary to clean the water-tap bases, sinks, bathrooms, toilets, etc., everyday. Removal of filth, wastes and refuse materials that accumulate everyday, etc., are also within daily cleaning activities.

2. Weekly Cleaning : Dusting of and removal of soot's from walls and ceilings, dusting and wiping of grills and glasses of doors and windows, cleaning of electric fans, washing of bed-sheets and pillow-covers, cleaning of kitchen racks and, if carpets is used in the rooms, its dusting and keeping in the sun, etc., fall under weekly cleaning activities. Besides cleaning fridges inside and outside is also among such activities.

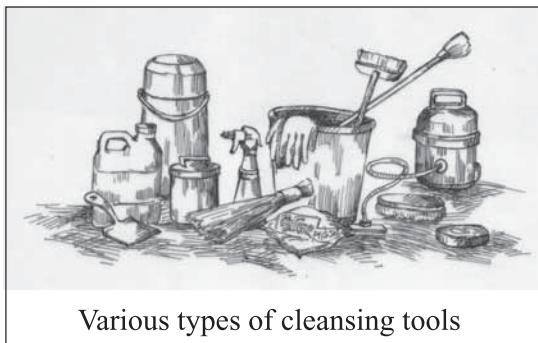
3. Yearly Cleaning : Painting of furniture, cleaning of room floors after removing the furniture, home repair and white-wash, placing of the articles under the sun which are, generally enclosed in almirah or trunks (such as seasonal clothes, quilts, mattresses, rugs, etc.), cleaning of creaming plates, drinking glasses that are preserved in wooden almirah or show- cases for long periods, etc., are among the activities that are done on yearly basis.

Activities under the above three groups vary according to their types and are significantly labor-incentive. These hence, need to be distributed among the family members accordingly to their respective age, energy, efficiency, younger members will become conscious of their responsibilities and will be careful in performing their part of task through participating in the aforesaid cleaning activities. They will be aware of the quality of the home environment and come forward to assume the responsibilities of upholding and enhancing it.

Tools Used in Home Cleaning :

Tools used in various activities of home cleaning are -

Soft and straw brooms, mugs, earthen bowls, brush, ladder, coconut coir or nylon scrubber, soft cotton textile or towel, soaps, Vim or bleaching powder, old newspaper etc.



Task 1 – Make a list of the activities you do for cleanliness of your home.

Task 2 – Show, by means of a chart, which tools are needed in cleaning activities.

Lesson 2 – Cleanliness of the External Premises

The external premises of the house need also be kept clean like the internal premises toward maintaining soundness of body and mind and mental satisfaction of all the family-members. We have to ensure that there is no water-logging, dirt or filth in the home courtyard. We need to ensure preservation of weeds and make easy outlets for effluents and rainwater. Because, dirty and water-logged courtyard makes room for growth of undesirable insects like flies and mosquitoes and, hence, spread of diseases like malaria, dengue fever, diarrhea, typhoid, etc.

The following need to be done toward maintaining cleanliness throughout the external home premises –

- Removing fallen leaves, dry things from the courtyard ;
- Preventing growing-up of bushes around the house ;
- Making fruit and flower garden in the open space ;
- Keeping the roof or the thatch clean ;
- Keeping the drains or sewers clean.

If the courtyard has big or large trees, it will accumulate leaves or dry twigs. These should be cleaned with straw-brooms regularly. Bushes should not be allowed to grow otherwise various types of insects and rodents will cause troubles. Soil of the courtyard should be leveled and used for fruit and flower gardening. Such a garden will, on the one hand enhance the beauty of the house and, on the other, help meet requirement of our food. Weeds should be removed immediately as these grow in the garden. The garden should be kept green and lively through regular watering. Branches of big and large trees should be cut to size once a year. This will enhance their growth, on the one hand, and, on the other, let sun light come-in inside the house. Roof-tops or thatches should broomed clean at least once a week. We need to ensure that water does not get logged on roof-tops, otherwise, logged water will make the room walls and ceilings damp and cause harm to our health. Perforated tin-thatch should be immediately repaired. If necessary, should be replaced by new tins.

Waste-water and other effluent of the house are to the underground main sewerage line outside the house through drains. Drains are, generally, open and uncovered. Hence, these need to be cleaned regularly. Solid wastes of the house, such as, polythene bags, etc., may cause blockage of the drain and pollute the environment and unhealthy situations through overflow of effluents. We need to be conscious of such situations. We need to ensure unrestricted flow along the drains through cleaning them by means of long-handled brushes, bamboo-sticks, etc. Phenyl, bleaching powder, etc., should be sprinkled on the drains to make them free of bacteria and germs.

At times of rains, drains need to be dug in the house-courtyard to prevent accumulation of rain water. Stagnant and logged rain water is the ideal breeding ground of aedes mosquitoes which cause dengue fever.

Anik does not go to school very often. He suffers from cold, cough, fever almost throughout the year. As a result, he always feels dejected. He does not find inspiration in any work. One day his friends went to his house and found it extremely damp and full of darkness inside. Sunlight and air do not enter the house as the branches of the courtyard trees are not cut in size. Anik becomes sick as his house does not have a healthy home environment. We need to bear in mind that both internal and external home environment should be kept clean for us to be physically and mentally sound.



A clean external courtyard

Task 1 – How can you help your family in keeping the external courtyard spaces clean of your house?

Task 2 – You like to clean the outer spaces of your class-room together with two of your friends. Make a list of activities to be done by each of you.

Exercise

Multiple choice questions:

- 1. Which of the following belong to weekly cleaning activities?**
a. Painting of furniture b. Washing of glass articles kept in boxes.
c. Cleaning the kitchen shelves d. Arranging text books and exercise books

Read the following paragraph and answer 2 and 3

Shanta leveled the ground of her home courtyard and made flower and vegetable gardens. She makes the gardens free of weeds and keeps their surroundings clean.

- 2. Which type of cleaning activity does Shanta make for her gardens?**
a. Weekly b. Internal
c. Yearly d. External
- 3. Advantages that Shanta can get from gardening are –**
i. Sources of extra income
ii. Enhancing the beauty of the house.
iii. Fulfilling nutritional needs

Which is correct among the following?

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

Creative questions:

1. Shahana lives alone with her family in semi- constructed house located at the center of multi- storied building. Surrounding of her house-courtyard are covered with shrubs and bushes. Overflow of open drain on one side reaches within the courtyard and has increased the disturbances of various insects, such as, flies and mosquitoes within the house.
 - a. What is the disease caused and spread by aedes mosquitoes?
 - b. What is meant by ‘Yearly Cleaning’?
 - c. What is the type of cleaning lacking in Shahana’s house? – Explain.
 - d. House environment of Shahana is obstacle to good health – Write clearly.

Section-B

Child Development and Family Relationship

The first seat of learning for a child is his or her home. Each of the members of a family plays an important role in the development of a child. Knowledge of such roles help each family member behaves properly toward the child. Life becomes much easier if there is clear idea and prior preparation in respect of various changes that take place during adolescence. An adolescent boy or adolescent girl is loved by all if he or she has his or her behavior acceptable in social environment.



After completion of this Part of the book, we will be able to –

- describe what families are, family articles and types of families.
- Learn the characteristics of children of various age-groups and behave with them in a proper way.
- describe the physical, mental, emotional, social and moral development during adolescence.
- describe the means of controlling emotions and negative aspects of various types of emotions during adolescence.
- make adjustments with various changes during adolescence easily.
- demonstrate various strategies and procedures toward learning how to behave with courtesy and etiquettes with the elders.
- behave properly with family members and teaches.
- assist young children and the handicapped at times of their need.

CHAPTER IV

Family and Child

Lesson 1 – Family and Types of Families

Each of us lives in a family. A family, generally, comprises parents, siblings, grandparents and many others. Besides, families comprising husband and wife with children are also found. Members of various ages with relationships, having roots in marriage and through births, live in a family. Family is the basic unit of a society.

Each of the family members has his or her own needs. These are, such as, foods, housing, clothing, and education. Besides, there are other needs of love, company, security and cooperation. The younger members of the family need proper care and direction. Above all, such member needs a safe environment where their overall development takes place appropriately. Family's major and most important responsibility has, hence, fulfilling all the above needs.

Family Bondage – We get upset in absence of any one of our parents. We feel very lonely if any of our siblings goes out to visit other places. We all become nervous if any of our grandparents falls sick. Do you know why such things happen? These things happen because of a deep relationship existing among all the family members. Such a deep relationship is what is known as Family Bondage. Such bondages are evolve through marriage, blood relations, love and affection and mutual cooperation. Family bondages get strengthened as we discharge our duties and responsibilities sincerely among ourselves, mutually exchange our daily experiences, etc. Traditionally father makes earnings for the family while mother in the responsibility of internal activities of the house and rearing the children. However, currently, both the parents work outside the house and earn for the family. Family bondage can be strengthened through family members helping the family through their active participation in home activities, exchange of love and affection and mutual sense of respect, mutual company to one another among the siblings, mutual exchange of various experiences and ideas, etc.

Types of Families – Families, according to the formation and shapes, are of two types :
1) Joint Family and 2) Single Family.

1. **Joint Family** – Families in which grandparents, uncles, and aunts, parents and children live together, are Joint Families. Joint Families are bigger size. In such families with strong family bondages, mutual cooperation arises and takes root among the members. Type of mutual cooperation could be various, such as – help during danger, suggestion and advise, helping rear children, financial help, etc.

2. **Single Family** – A Single Family is made only of parents and their unmarried children. Such families are smaller in size. Currently most of the families are single families. There are some differences between a single family and a joint family in case of child rearing. These differences are as under:

- Children in single families grow-up without the help of grandparents and other aged members of the family.
- Both grandparents and grandchildren are deprived of the company of one another.
- Children are looked after by someone outside the family as working parents go out for work.

Many a times, any of the aged grandparents stay with some of the single families. In such cases the single family enjoys elderly advice, company, love and affection, etc.



Joint Family



Single Family

Task 1 – What is the type of your family? Describe your relationship with the other members of the family.

Task 2 – Enlist the activities you can do to strengthen the family bondage.

Lesson 2 – Characteristics of a Child at Various Ages – the Neonatal period.

The United Nations Charter of Children Rights, 1989 identifies everyone below 18 years of age as a child. Now, a question will arise whether the characteristics of a new born are the same as those of a five-year old. The answer is negative. They are never the same. Based on characteristics of children of various age-groups, hence, the childhood periods have been given various names.

- From birth up to 2 weeks – Neonatal Period
- 2 weeks to 2.5 years – Babyhood
- 2.5 years to 6 years – Early childhood
- 6 years to 10/11 years – Middle childhood
- 10/11 years to 18 years – Adolescence

Birth of a child in the family brings about much joy for us. But, do we understand what the child needs at this stage? What are his or her characteristics? A child is born in this world in a completely helpless state and is to depend completely on elders for sustenance. Each child is an important member of the family. It is, hence, is the responsibility of all of us to fulfill the needs of the child and rear him or her up as a healthy and perfect citizen through requisite care and direction. We need to understand the characteristics of the child at various ages, because –

- We can behave appropriately with him or her if we know his or her characteristics.
- We can fulfill his or her needs of that particular age.
- We can make the new parents aware of creating requisite environment for his or her growing up.
- We can arrange for timely treatment of any type of abnormality if found within him or her.
- We can give company to him or her as elder siblings.

Task 1 – Explain why we need to learn the characteristics of a child at his or her various ages.

The Neonatal Period – it is certainly known to you that a child spends 9 months or 280 days in his or her mother womb before coming to this world. When he or she is born after being nourished in mother's womb for such a long period, he or she finds himself or herself in a completely new environment. Such an environment can pose various types of danger or risks to the child. Ignorance and lack of appropriate care leads to significantly high rate of neonatal deaths in our country.

It is the children who are of reddish and pink color at the time of birth, who cry at the moment of birth and who can suck mother's breast normally, are healthy neonatals. A healthy and normal neonatal weighs at least 2.5 kg, if not more. A neonatal sleeps for at least 18-20 hours – gets up after each 2-3 hours, takes food, releases excreta and sleeps again.

Following are some more signs or characteristics, that make us understand a child's soundness –

- The child likes to suck if its lips are touched by a finger.
- The child holds firmly if a finger or a pencil is given to its palm
- Sudden sounds make the child suddenly come to senses.

Besides, there are some more expressions any of which, if absent, indicates a child's abnormality. In such cases the child should be immediately rushed to hospital, health-center or a child specialist.



A healthy neonatal sleeps most of the daytime.

For this reason, children should, necessarily, be born in hospitals, or in health centers for the sake of safety of both mother and the child.

Task 2 – Watch a neonatal and arrange his or her characteristics in your exercise book according to the following table.

Age (in days)	Weight	Height	Appearance	Other Experiences

Lesson 3 – Babyhood

All of us need to know that early years of a child's life lay the foundation of the subsequent stages of his or her life. It is like laying the foundation of a house to be built. A strong foundation makes the house last longer with less risks of disaster. Similarly, good habits created early life, care and education, etc., help a child build good and normal future for the later ages.

Period extending from 2 weeks to 2.5 years after neonatal period is called Babyhood. Besides, an eighteen month old child starting to walk swinging sideways, is also known as a 'toddler'. Development of the child during this period is so fast that after several lapses of some days, the child appears much bigger and unknown to known persons. The child having been much helpless during the time of birth, can now walk, jump, talk and can perform many other activities as well.

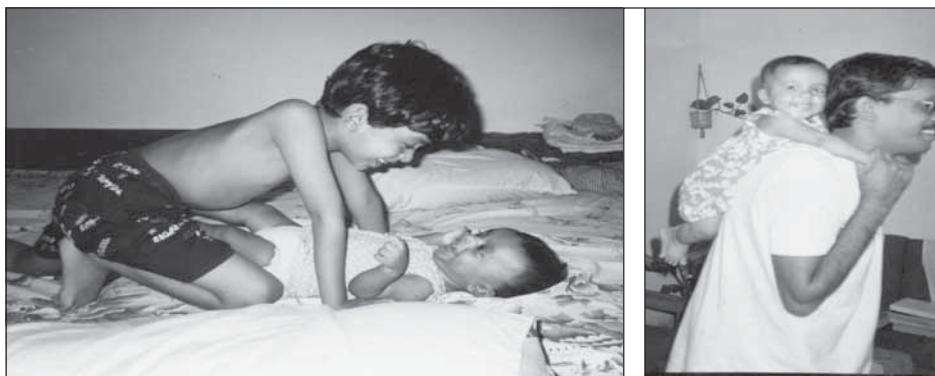
Various children have various extent of development depending upon food, nutrition, care, physical structure of parents etc. However, still, development of a child in weight and height has its normal sequence. Weight at birth is doubled in six months, becomes three times in one year, four times in 2 years, five times in 3 years. Height of a child becomes twice the height or length he or she had during birth. Had there been no rule of the nature in respect of growth of human beings from childhood to matured age, a child could have become of gigantic height had he or she continued to grow as above. But such things do not happen at all. The rule of nature restricts and makes limitation applicable to the rate of development and growth. During the later years the rate of development and growth of the child gets gradually reduced. Very often we consider a fat and flamboyant child as healthier than a child of slim figure and of light weight. This is far from being correct. We need to call a child healthy and normal if he or she is of normal weight and height according to his or her age, with transparent and bright eyes, glazy and smooth skin and hair and shows signs of happiness and contentment in his or her appearance.

A child fully content with his or her rearing process from the very earliest part of his or her will, definitely be well-grown and well-developed. Appropriate care, love and affection make out to him or her will provide security for him or her. He or she will develop within himself or herself a sense of belief and trust regarding persons and the environment surrounding him or her. Through the care meted out to him or her. Love and affection, together, compromise an enormous force which provides security for the child. Hence, we need to do the following toward taking care of the little baby:

- Providing him or her food when he or she is hungry.
- Clean him or her immediately as he or she releases his or her extracts. We should not keep him or her wet.
- making him or her get rid of the inconveniences as early as possible when he or she begins crying.
- to ensure that the child does not suffer in excessive heat or in excessive cold.
- to take the child in the lap as he or she gets scared of anything.
- making arrangement for the child to have sound sleep.

We all know that requisite and adequate food facilities physical and mental growth of a child. But most of us do not know that, besides food, love and affection as well as providing enthusiasm toward doing something good, act as significant ingredients for a child's brain development. A child who gets adequate food without having love, affection and enthusiasm will have his or her brain less developed than the one who gets everything from adequate food to love, affection and enthusiasm. Exchange of ideas with a child of this age is of paramount necessity. Such an exchange of ideas is called food for the brain.

Mother assumes the maximum responsibility in taking care of the child. A child, of course, having his or her father, siblings and other near and dear ones of the family participating in child rearing, games, exchange of ideas, etc., is more healthy and intelligent than other children. Such a child grows in stronger security as well.



Exchange of ideas between a child and other members of the family. Such a process makes the child grow-up in stronger securities.

Task 1 – Design a poster with themes on how babies grow up, which activities are important in their development.

Task 2 – Read this out under the supervision of a teacher. Distribute the poster among new parents.

Lesson 4 – Early Childhood

Period extending from 2.5 years to 6 years of age is known as Early Childhood or first step of childhood. Another name of this age is pre-school child or child prior to school age. It is such an age when the child does not begin to participate in informal education in a school but get prepared for going to school. Some children, of course, begin to go to school at this age and takes preparation toward participating in informal education there. This period also called as the age when a child spends his or her time playing.

Dialogue – 1

Mitu – why does it rain, Mom?

Mother – Rain gets accumulated with clouds and at a certain time it comes down from the clouds.

Mitu – There are clouds clouds now, too. But why doesn' t it rain?

Mother – When the water inside the cloud gets too much cold, it comes down as rain.

The above questions are part of dialog between a pre-school child and her Mother. Consider the characteristics of the child that are expressed in this dialogue.

Such a time is of joy and happiness for a child. The world is a great wonder to him/her. He/ She has thousands of queries regarding himself/ herself, others and everything near about. He/ She asks questions contentiously on each subject. He/ She likes to learn everything. This is an age of eagerness and curiosity. One should not resist such a behavior of a child. All his/her questions should be satisfied with easily understandable answers toward making him/her interested in further learning. His/ Her intelligence will gradually be developed in this process.

**Task 1 – Draw a picture for satisfying curiosity of a pre-school child' s environment
(small children like big and simple pictures with bright colors)**

Dialogue – 2

Asif – I can count one hundred. Raiyan – I can count one hundred thousand.

Asif – I can count two hundred Thousand – Raiyan I can count more than anyone in the world can do.

The above dialog is between two pre-school children. They can talk much during this age. They remain self-centred during this period and, as such, talk much about themselves they get interested in saying everything about the subjects of their pleasure, about the members of their families, about the things that are in their possession, etc.

They start competition with their equal age counterparts. Their social development takes place in such a way. Children of this age- group start liking to imitate others. They like to play through theatrical performances in the way as the type of work performed in front of them. Examples are –reading newspaper as is done by father, advising everyone as mother does, etc. At this age, expensive toys and other ingredients are not necessary for bringing about appropriate changes in children's lives. What are needed are –

- Talking with them politely beautifully inside and outside the house.
- To be attentive to what they like to say.
- Without getting annoyed, one needs to satisfy their questions with easily understandable answers.
- Entertaining them with rhymes, songs and story- telling.
- To give them time and playing with them.
- Making them acquainted with providing them with ideas of new subjects.
- Enthusiastically involving them in seeing, doing and getting tastes of new things.

The more such works are done properly, the more these will be beneficial toward appropriate development of children.



Learning through playing. Some pre-school children

Task 1 – Make a list of the characteristics of a pre-school child with examples.

Lesson 5 – Middle Childhood

Have you ever noticed how your younger brothers or younger sisters imitate you? Have you ever noticed, too, whether he or she respects you? It is for these reasons that you need to behave properly in his or her presence. Besides, more than often, you need to look after him or her when both your parents go out of the house. Hence, you need to know his or her characteristics and, also, the exact way in which he or she behaves.

Period extending from 6 to 10/11 years of age is referred to as Middle Childhood. This period intnurses the child's physical development in low paces. But the social life experiences changes that are amazing. Most of the children of this age- group start going to schools. This is one of the major changes in their regular lives. This age witnesses the children getting involved in groups. Boys and girls begin to play in respective groups. Schooling and games make them briskly interact within the respective groups of contemporaries.

This age gives rise to necessary skills among the children. They are able to do their work themselves. They can take their meals, put on dresses etc., in a short time with less effort. They are able to do various works within and outside their house side by side those of their own. Such works include – gardening, room-making and cleaning etc.

This age witnesses children performing various works, such as – writing and drawing pictures in schools, biking, swimming, etc. Through such participation in various works, they become enterprising and industrious. Successes in new tasks enhance their self-confidence. They compete with their contemporaries in various ways. Successes achieved by them during this period of their age open up doors to future successes. Failures, on the other hand, create disappointment in them, leading to their excessive anger, habits of throwing out or breaking various articles, hitting someone etc. Dejection, crying due to minor reasons, disinterest in going to school, etc.

Let us learn some more characteristics of children belonging to their age-group through the following two events:

Case history - 1 : Both Aditi and Rana are students of class II. They like their Class Teacher very much as the letter appreciates them for their performance in the tasks assigned to them as class work and home work. Similarly Shumon and Shaheen are students of class IV. They are very much fond of their teacher, Sohel Sir. The teacher does not punish them in spite of their failure, at times, to understand the class lessons. Rather, he makes them understand politely in a simple manner.

Elders' appreciation of mild behavior helps children grow sense of security within themselves. This leads them to develop within themselves a crave for behaving still more nicely and doing still more good works. Children like appreciation and love. On the other hand, punishment from elders, for any reason, hurts their self-respect and lead to dejection in them. They lose incentive to do new works.

Case history – 2 : Rajin is of 9 years of age. He is just promoted to class IV from Class III. He feels sad and distressed as he could attain none of the 1st, 2nd or 3rd position in the class. His elder sister Jahin consoles him, saying: ‘ be attentive to your studies during this year and you will certainly come out with better results’ . Rajin cheers up becomes attentive to his studies in new sprits.

It is not wise to get disheartened at the results of examinations for any reason. This causes obstacle to success in future. Parents, too, become disappointed and angry under such circumstances and continue to rebuke their children. During such an event, you, too, may make the parents understand the negative aspects of their such behavior. You may say that negative utterances of the elders’ harm the children’s self-confidence and cause obstacle to their success in future. In such a way you, need to be conscious of younger’ s failures. The youngers should be encouraged toward regaining their self-consciousness.



Children become skilled and hardworking in Middle Childhood

Task 1 – Write some ways how to encourage younger brother or younger sister for his or her success.

Task 2 – Make a list with examples, of characteristics of Middle Childhood

Exercise

Multiple choice questions:

1. Which of the following is the age up to which the childhood extends according to United Nations Charter?
 - a. 6
 - b. 10
 - c. 14
 - d. 18

2. At which age do children start becoming skilled and industrious?
 - a. Babyhood
 - b. Early Childhood
 - c. Middle Childhood
 - d. Adolescence

Read the following paragraph and answer to questions 3 and 4:

It had been in the house where Saleha's child was born. The child did not cry immediately after birth and it was getting blue gradually.

3. Saleha's child was becoming blue, because –

- i. Its lung was not activated
- ii. Level of carbon dioxide in the blood had been increasing
- iii. There was dearth of oxygen

Which of the following is correct?

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

4. Under such circumstances, what had been necessary for Saleha to do?

- a. to clean the baby quickly
- b. to arrange feeding milk
- c. to arrange for oxygen
- d. to keep the baby wrapped with warm clothing.

Creative questions:

1. Abid is of 3 years of age. His working mother stays with her parents-in-law in spite of her office being at a distant location. Abid's aunt (wife of paternal uncle) makes him bathe, have meals, etc. Abid spends his day rejoicing with his grandparents in spite of day long absence of his parents.

- a. What is the basic unit of a society?
- b. What is a single family?
- c. In which type of family does Abid grow-up? – Explain.
- d. Abid grows up with a strong family bondage – Explain.

2. Saiyara will get herself admitted into a school next year. She speaks throughout the day. She keeps her mother busy throughout the day with thousands of questions on world surrounding her. Although her mother remains busy in various works, she does feel disturbed and makes answers to the various questions asked by Saiyara.

- a. What is the first language of a neonatal after birth?
- b. What do you mean by a healthy and normal child?
- c. In which stage of childhood is Saiyara in? – Explain.
- d. Role played by Saiyara's mother facilitates appropriate development of children like Saiyara – Explain.

CHAPTER V

Development during Adolescence

Lesson 1 – Physical Development

The period extending from 10/11 years of age, i.e., the end of the last stage of childhood to the beginning of adult-hood, i.e., the age of 18 years is called adolescence. Such a period of age is frequently referred to as puberty. Hence, at this stage of your life, you are an adolescent boy or an adolescent girl having attained pubescence. Changes that occur to you during this period are completely different from those during other periods of your life.

Physical Development – Boys and girls undergo some specific kind of physical changes as they get transformed from childhood to puberty. Such changes are of short duration and are rapid. Physical development means changes brought about inside the body and its increase in structure and size. Physical changes have some common characteristics for all. During this period, the height increases by 7 cm – 14/15 cm (3 inch to 5/6 inch) in a year. Generally, girls continue to grow in height up to the age of 18/19 years while the boys do it till attaining 20/21 years of age. During this age period, in spite of gaining in weight they appear thin due to attaining increased height. They attain the size of full-grown human beings with gradual changes and increase in various organs of their body. During puberty, specific changes that take place throughout the body, help make distinctions between a boy and a girl. Boys start having moustaches and beards and changes in their voice, initially with breaking pitches to manly one. Girls get their breast swelled. Both boys and girls get hairs at various parts of their body. Major changes occur in boys and girls during this period.

Sperms produced inside the body in case of boys are stored in their testicles and get sometimes released as urine when they sleep at night. The adolescent boy becomes scared of such happenings causes of which are completely unknown to him. Girls, on the other hand, have their menstruation after each 28 days. Blood, together with mucous matters secreted from their uterus is known as menstruation. It continues for 3 to 5 days and for some girls, for 7 days or more. Menstruation during the first year of its occurrence can be irregular. Such a change can, naturally, be a cause for the respective girl becoming concerned of, if it is not previously known to her. It is to be borne in mind that boys and girls after attaining puberty and having undergone the above change, become capable of giving birth to children. In some cases, such types of physical transformation may start one year or a couple of years prior to or after the beginning of adolescence. There is nothing to be concerned of, as it is a very much normal process. Changes that come suddenly during this period are within the scientific life-cycle of normal human



Pubescent boys

beings. The more we earn the capability of admitting such changes, the less we encounter problems or disasters. Any changes or problems encountered during this period of the age should be discarded openly with parents or elder siblings. You may be able to overcome all your anxieties easily through such open discussions. You need to consider your parents as your friends during the time when you discuss yours such problems with them. Most of the time the parents in our society avoid such issues raised by their children. In such situations the discussion needs to be made with elder siblings or with the elderly as well as dependable member of the family. Discussion on the issues with contemporaries may not result in appropriate information or suggestions as the type and time of such issues may vary from one another. It should be borne in mind that those who cannot express their issues of changes to others, may have more disorganized behaviors and encounter more problems.



Some pubescent girls

Task 1 Arrange the physical changes that you have undergone during the past one year according to the following table.

Period	Bodyweight	Height	Appearance	Others
Previous 1 year				
Current year				

Lesson 2 – Mental Development during Adolescence

The word, ‘mental’ has come from the word, ‘mind’. Children grow in height simultaneously with weight. They learn how to speak and memorize things as they grow-up in age. Gradually they can understand the difference between day and night and, also, the distance between one place and another. It is due to the presence of intelligence among us that we are able work and adjust ourselves with environment we live and work in. All such abilities are mental efficiencies or mental development. Mental development of a child means how and to what extent the child gradually attains the capability of using his or her body-organs, expressing himself or herself in languages, utilizing his or her intelligence, understanding anything, etc.

Studying in schools develops the child’s ability of language, memory, thinking, etc. The child had not, previously been aware that he/she can learn many things through reading books and in company of class-mates and teachers. You are now an adolescent student. If you think for a while you may come to know that you are capable of, doing things previously you had not been able to do you had no knowledge about. You can now keep accounts of your money, get changes for the money of various denominations, weigh various objects using weights, understand the relationship among all the members of the family, etc. In this way you are also capable of understanding your relationships with your friends, neighbours, and your kith and kin.

Adolescent boys and girls can solve problems with their thinking and sense of judgment. They can think by applying logic. Such aspects of thinking comprise the matured step of mental development which is earned by adolescent boys and girls. At this period of their age, they can grasp abstract ideas (i.e., ideas that are hidden inside an object or behavior, such as – honesty, bravery, affection and compassion, etc.). They can also solve problems in black and white which are beyond their actual visual area. Examples are problems and theorems of geometry. They can express their opinion logically. They develop with increased capability of thinking and attentiveness. It is to be borne in mind that mental capability of thinking, memorizing, understanding with logic determines to what extent a person makes progress or attains success in life and adjusts himself or herself with the environment he/she lives or works in.

Task 1 – Enlist some of your skills that indicate your mental development.

Let us learn how to enhance our mental capabilities

- Reading more various types of helpful books simultaneously with text books.
- Getting answers to various questions to satisfy curiosity.
- Hearing and understanding things with attentiveness.
- Seeing clearly and attentively hearing things so that it can be kept in memory.
- Understanding things prior to memorizing them.
- Seeking help of teachers or the aged in understanding an object clearly in case problem is encountered while doing it alone.
- Getting company of other children and exchanging ideas with them.
- Participating in various works.
- Seeking hands-on testing of objects, if available.
- Understanding own responsibilities through group discussions.
- Taking interest in and knowing what is happening around us.

You can enhance your mental capability if you pursue the means as listed above. It should be borne in mind that an all-round development of a child or that of a human being is impossible without the development taking place both physically and mentally.



Clear ideas on subjects are generated through group discussions.



Attentiveness in class is an easy means toward enhancing mental capability.

Task 2 – Make a list of books along with authors you have read besides the text books during the last six months. Describe what you have learnt through these books.

Lesson 3 – Emotions of Adolescence

Samin's joy knows no bound. He shouts out. This is because his team has won in the cricket competition.

Result of the final examination will be announced tomorrow. This makes Rima feel uneasy from today. She feels scared with her heart pounding.

Joy, anger, fear, laugh, smiles and tears, etc., are our everyday compassion and, together comprise what known as emotions. Human beings without emotions cannot be thought of. Here lies the difference between a robot and a human being. Robot is made of machines. It can do everything a human being can do. But it cannot smile, it cannot run away out of fear, it cannot shout out of anger. When an external event makes us agitated, we smile, we are tears, we get scared, feel jealous, get angry. These are the expressions known as emotions.

Types of Emotions –

Emotions cause our physical, mental and behavioral changes. When we get afraid of something our hairs get bristle, hands and feet become cold, pounding of our heart increases in tension, eyes redden up in anger, we laugh in joy and feel crying at the news of sad happenings – all of these are expression of emotions. Emotions are of two types : Positive emotions and Negative emotions.

Positive emotions are, e.g., happiness, joy, smiles, love and affection, etc. Such type of environment is liked by all. Examples of negative emotions are – anger, fear, sorrow, envy or jealousy, etc. These make a sad environment and are not liked by anyone.

Negative Aspects of Emotions –

Excess of emotions causes much harm to us. Changes occur in our mode of expression, appearance, etc., due to emotions. Eyes get enlarged during anger, appearance gets distorted and looks like that of a ferocious animal. Our behavior, too, changes due to excess emotion. There are a number of persons who throw out and damage various articles and hit others. We feel aggrieved due to sad happenings, we cannot be attentive to our studies, we cry and stop eating. Fear of anything increases our uneasiness, we cannot do normal works, we stammer while speaking, we sweat, our hands and feet tremble. All such happenings are harmful to our body and mind. Excess of emotions creates complications in our lives and make our behavior illogical and awful.

Adolescence is characterized by excess of emotions. Inequalities of emotions are observed due to occurrence of physical changes. Various types of anxiety and uneasiness work within the adolescent boys and girls. Behaviors of your family members more than often create offended state of mind and anger within yourself. These, although, being the normal characteristics of this age, cause much harm to us. Anxieties, more than often, cause our distracted attention to our studies, make us suffer from sleeplessness, nausea, abdominal pains and cause obstacles in our daily work. For such reasons, emotions need to kept within control.

Means of Controlling Emotions –

Anik had been watching TV in the evening. His father suddenly switched it off. He said angrily ‘ if you do not like you do not need to carry on your studies.’ Anik got very much offended at the words of his father. He wished to throw out his text books and exercise books but controlled himself from doing so. He thought applying some logic – his father might have used those words for Anik’s own betterment. Anik should not have watched the TV during his study hours in the evening. Anik controlled his emotions arising out of the above circumstances and tried to sort out the better aspects of it. In this way you, too, make a habit of controlling the negative emotions.

Aspects to be done toward controlling emotions are –

- Learning to sort out the positive aspects of any event.
- Building up a habit of discarding complicated situation.
- Avoiding situations of disappointment.
- Participating in works and games in groups.
- Trying to avoid events which cause anger, fear, etc.
- Discussing openly with parents and friends on own problems.



Sad events cause anxiety among us

Task 1 – Describe an event which occurred during the past few days due to emotional reasons. What had your reaction been?

Task 2 – Write with logic whether your reaction were appropriate.

Lesson 4 – Social Development during Adolescence

Our behaviour changes with increase in age. People around us expect appropriate behaviour from us according to our age. Learning to behave according to age is, in other words, social development. An example of social development is keeping company with everyone, e.g., playing with contemporaries showing respect to elderly persons, being affectionate to youngsters, etc. helping, sympathizing and sharing things with each other, participating in good activities, learning to obey rules and regulations, etc., are within acceptable social behaviour. On the other hand, quarrelling, fighting or showing aggressive behaviours, using abusive languages, self-centeredness are the ones which are beyond acceptable social behaviour.



School class-mates and groups of neighbouring friends comprise social environment besides the family for the adolescence.

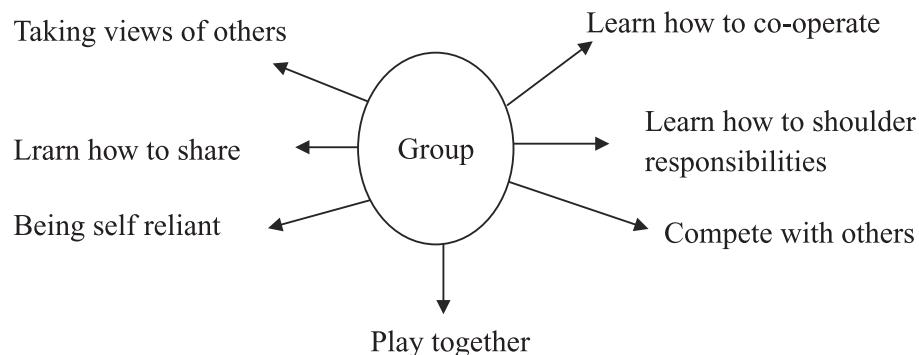
Behavior of the contemporary adolescent groups significantly impacts upon the children belonging to that age-group. During this period school class-mates and neighboring children comprise a social environment which is among those besides the family environment. During adolescence, children try to be devoted to their respective groups and to be of same behavior as those of the members of the group. He/she expresses himself or herself to the group he/she belongs. They like to discuss their personal secrets with their friends rather than doing it with their families. In this way a group of close friends is created. Being together with friends during adolescence, they can develop quite a good number of acceptable behaviors among themselves. They become inclined to make behaviors that are acceptable to their respective friends-groups. Example could be competing in studies, obeying teachers' directives, playing games together, etc.

Besides, following inspirations of their friend-groups, they do not get afraid of doing various risk-involved works, such as experimental smoking, taking drugs, fleeing schools, posing resistance to elders, etc. Anyone not doing such behaviors becomes subject to taunting and is made bound to get used to those behaviors if he/she wishes to continue within the group. For such reasons, everyone needs to be cautious in selecting friends during adolescence.

Now let us know what we have to do toward becoming social during our adolescence –

- Exchanging greetings with all
- Not keeping ourselves withdrawn and concealed within us.

What do children learn being within an acceptable group?



- Participating in various works and games.
- Building up habits of continuing discussions with all.
- Showing respects to elderly persons, obeying their directions.
- Showing affection and love to youngsters.

Task 1 – Can the friend- group taken as acceptable with whom you are closely associated? Show logic behind your comments. Write what you have learnt from such friend-group.

Task 2 – Write something about an unacceptable group you are acquainted with. What type of work do they do? Write your suggestions for them.

Lesson 5 – Moral Development during Adolescence

As an integral part of the society we live in, we need to know the rules of the society, such as – what we need to do and what should not be done, which act is good and which act is not, etc. Besides, we obey our religious rules and regulation, too, in distinguishing between the good and the bad. Morality means pursuance of the social and religious rules and regulations and, through such proactive, controlling one's own behavior by one's own self.

Human beings do not attain morality all of a sudden. The process of moral development is spread over a long period of time. Ideas on right or wrong behaviors generate from the family and find their base in human beings during childhood. A child learn about good or bad activities in a way as his/her parents, elder siblings and other members of the family like or dislike them. During the early stages of moral development, a child refrains himself or herself from wrong behaviors out of fear of punishment. Hence, morality during childhood is, more than often, referred to as compulsory morality. But as a child attains adolescence, he/she builds up his/her own idea on what is good and what is wrong. He or she does not perform good work out of fear at this age, rather does it out own will. He or she applies logic in justifying which work is good and which work is wrong.

Regularity and compliance with rules play significant roles in moral development. Pursuance of such virtues from the very childhood helps develop good and acceptable habits within all of us. Parents within the house and teachers in schools help you pursue regularity and compliance with rules through their directives and prohibitions. Development of habit of making acceptable behaviours becomes easier if the teacher make you understand right and wrong activities. Physical punishment arouses hostility in adolescents and cause them inclined toward going against rules. They will feel encouraged if they are appreciated for good works.

Adolescents get their behaviours influenced by the company of friends they keep. Wrong behaviours, sometimes, are greeted by friends. Moreover, they learn wrong behaviours following those of their group members. Hence at this age, too, children should be cautious of the company they need to keep.

Now, let us get acquainted with the wrong behaviours during adolescence and be cautious of such behaviours

Wrong behaviours at home	Wrong behaviours in schools
<ul style="list-style-type: none"> • Quarrel and fighting among siblings • Talking defiantly with elders • Making negligence to everyday work • Avoidance of duty • Telling lies • Blaming others • Spoiling or stealing others' properties 	<ul style="list-style-type: none"> • Stealing something belonging to class-mates. • Telling lies • Cheating • Fighting with class-mates using bad language • Spoiling school properties • Fleeing school • Smoking or taking drugs

Task 1 – Make a list of behaviors, you consider as good, inside the house.

Task 2 – Make a list of behaviors, you consider as good, in schools.

Exercise

Multiple choice questions

1. Up to which age do girls grow in height?
 - a. 18/19
 - b. 20/21
 - c. 22/23
 - d. 24/25

2. Which of the following is a negative emotion?
 - a. Love
 - b. Smile
 - c. Sorrow
 - d. Affection

Read the following paragraph and answer to question 3 and 4.

Abir is of 13 years of age. His mother noticed that Abir, while at shopping has neither able to keep account of the money nor can understand the weight of articles being purchased. He cannot logically understand the subjects of study. He cannot well memories the subjects that had already studied.

3. **Which aspect of Abir has not developed properly?**
 - a. Physical
 - b. mental
 - c. Social
 - d. Moral

 4. **Toward faring well in studies, Abir needs –**
 - i. Understanding the topic well before memorizing it.
 - ii. Reading various books side by side with text books
 - iii. Visualizing clearly and hearing attentively.
- 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

1. Ragib is in class VI. He is ahead of all others in making his class-mates understand home-works, cooperating in group work, helping friends at times of need, etc. Such virtues of Ragib make him liked by all in the class.
 - a. Upto what height do boys continue to grow?
 - b. What do you mean by mental development?
 - c. Explain what kind of development can be noticed in Ragib's behaviors.
 - d. Do you agree to the fact that one can attain the nature like that of Ragib thorough working intimately with various groups? Justify your answer.

2. Shaju is now in VI. His mother has been noticing over the recent few days that he quarrels with his younger sister throughout the day. He becomes angry when asked to sit for study. He starts throwing various articles here and there.
 - a. What is the adolescent age-limit?
 - b. What you mean by moral development?
 - c. Explain what characteristics are noticed in Shaju's behaviours.
 - d. How can boys and girls of shaju's age change their behaviour? Explain clearly.

Chapter VI

Changes During Adolescence and Maintaining Self-Security

Lesson 1 – Personal Awareness of Changes and Cleanliness during Adolescence

The period of puberty is limited within a very short span of years. During this period changes take place in the state of mind as well as in behaviors simultaneously with rapid physical changes. Adequate food and energy, in excess of what had been needed prior to arriving at this stage, is necessary for children for their rapid physical growth. Lack of foods of requisite nutritional values may lead to malnutrition in such children and they become easy victims of fatigue. Hence, they need to take all types of food in sufficient quantities. Girls may be subject to anemia at this stage. Foods containing iron help remove anemia at this stage.

Quite a good numbers of girls suffer from physical inconveniences due to abdominal pain, headache, back-ache, etc., during the early stage of physical changes or during the period when menstruation begins. Such inconveniences are normal. However, consulting physicians is necessary if such inconveniences become too much or are unbearable. All types of work excluding playing games can be done during menstruation, except lifting or carrying heavy articles or doing excessive work which need to be forbidden during this period.

Such Physical changes may cause some behavioral changes among both boys and girls. Girls remain fearfully cautious, lest others pass adverse remarks on their changed physical characteristics. Girls, sometimes, are found bent forward while walking as the changes brought about in their physical conditions become too prominent. Putting on adequate attire or dresses could be helpful in removing such timidities among adolescent girls. Appearance of moustaches and beards and changes in voice sometimes make adolescent boys shy of coming in front of others. Prior preparation regarding such changes and taking such changes in a simple and normal way will relieve adolescent boys and girls of such types of shame, shyness and timidities.

Shupti has been promoted to class VI this year. She pursues her studies staying in her aunt's house. She feels to inform her aunt of several problems she confronts at this age. But she cannot do it with an open mind due to some sort of hesitation and timidity working within her. Such type of affairs is common experiences during the adolescent period. There are many of such girls who, like Shupti, cannot open-up themselves to their parents or elders. You should, certainly, need to bear in mind that any or all the problems of this age should be discussed with parents, elder siblings or with any dependable person and their views should be sought in order to get rid of the anxieties of this age.



An adolescent girl in appropriate attire

Cleanliness

Cleanliness is of specific importance for us to be healthy and able to maintain good health. Physical cleanliness keeps us cheerful, too. Sweat is secreted from subcutaneous glands throughout the body and more in quantity from those in the armpits during adolescence. Hence, regular bathing and putting on clean clothing is very much necessary. Boys need to bathe and clean themselves after semen ejaculation. Girls, during menstruation need to do the following:

- Use napkins or pads made of clean cotton textiles.
- If textiles are used, it should be washed absolutely clean and dried in the sun.
- Textiles and clothing should not be kept in dark, moist and dump places as contamination of diseases are apprehended by various bacteria in such places.
- As the pads and textiles become wet, they should immediately be replaced with clean and dry ones. Contentious use of wet pads and textiles may result in various contaminations.
- Used textiles and pads should be wrapped with paper and disposed in dustbins, buried underground or burnt.

Task 1 – Make a list of what are to be done toward creating personal awareness during adolescence.

Task 2 – Make a list of activities toward ensuring personal cleanliness during adolescence.

Lesson 2 – Learning to Maintain Self-security

Safe environment is essential for healthy growth of children. Lack of such environment often leads children to encounter troubles. We can get rid of such troubles if we develop some consciousness among ourselves.

More than often, we come to know about missing children, tortures done to them in various ways and kinds of troubles or dangers they are in, through newspapers. Trafficking of children of various ages to various countries outside Bangladesh is among such news items. In the countries where the children are trafficked out, are made to work in illegal activities and also in those full of risks and danger. Such activities range from house hold works to acting as jockeys of camels, shepherds, etc. Some groups of criminals sell out the children they smuggle out to other countries and earn illegal money. We all need to be careful of them.

Sometimes some persons unknown to you may pretend to be among your relations and may talk to you and allure you in such a way that you may commit blunder and fall within their trap. For such reasons, you need to maintain utmost caution during your going to and coming from schools and other movements here and there. You need to remember the following for your own safety

- Do not move alone to far and distant places.
- Do not move alone with anyone who is unknown to you.
- Do not take food offered by unknown persons.
- Do not take anything from unknown persons.
- Do not respond to any allurement from unknown persons.

Adolescents, more than often, are taken out enticing parents of lucrative jobs or handsome amount of money in a foreign country and, in this way, are smuggled out and get detached from the family forever. This is highly dangerous. You need to be cautious and to ensure that your parents, neighbors, younger siblings and friends are alive to such situation.

We, very often, go to the market for shopping. There is tremendous rush of people in the market on occasions prior to Eid, Puja or various religious festivals. We may encounter various types of uneasy and embarrassing situations in such rush hours. Among such circumstances are, touching various parts of girls with bad motives, etc. You need to be cautious so that you do not have to encounter such unwanted situations. Following are some ways to protect oneself.



Mother is being allured with a view to trafficking the child.

- Avoiding excessive rush.
- Avoiding going alone to known as well unknown places.
- Avoiding companion of unknown persons.
- Avoiding to be alone in the house
- Protecting oneself from ill-motivated touch by anyone by all means.
- Avoiding friends who talks ill and obscene.

If you are a boy, you need to avoid or reject friendship of contemporaries who tend to embarrass you touching the various organs of your body. You may inform your parents, elder members of your family and, if needed, your teacher, too. You should consider such persons among your closest friends in all respects and, thus, you will easily get free to your mental uneasiness and pains.

Task 1 – Construct slogans for posters for a rally on creating safe environment.

Task 2 – Write an instance of abduction which is known to you. Read it out in the class under your teacher's supervision.

Exercise

Multiple choice questions

- a. What is the type of food that helps remove anaemia?**

 - a. Mineral salt
 - b. Iron
 - c. Iodine
 - d. Thiamine B-1

2. Which of the following is a common event of adolescence?

 - a. Talking openly
 - b. Hesitation, timidity
 - b. Showing normal behavior
 - d. Taking normal foods

Read the following paragraph and answer to questions 3 and 4.

Unimaginably restless Ruthi is a girl of 12 years of age. She does not like to go to the market in rush due to Eid and various festivals. She is shy and afraid of going to such places.

- 3. Reasons of Ruthi not liking to go to the rush borne various festivals are –**

 - a. Assuming them as troublesome b. Bad touches
 - c. She dislikes rush of people d. Avoiding companionship of known persons.

4. Under the above circumstances, Ruthi needs to

 - i. Discuss with persons who are close to her.
 - ii. Ensure her own safety
 - iii. Become calm and quiet.

Which of the following is correct?

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

Creative questions

1. Ever smiling and happy Neela has suddenly become calm and quiet; she keeps confined within her room and barely talks to others. She does not feel interested in taking food, too. Seeing such a condition in which Neela is, currently, in, her mother tries to talk openly with her. She asked Neela to tell about her physical state. Neela, though feeling constrained at first, became gradually normal with her mother.
 - a. When does the body need excess food and energy during its rapid development?
 - b. Lack of adequate nutritious food causes malnutrition – Explain.
 - c. Explain the type of physical change which makes Neela behave as above.
 - d. ‘Role of Neela’s mother will make Neela used to making normal behaviors’ – show logic in support of this sentence.

2. Quddus Mia had sent Binu and Minu, the destitute and poor of village Rasulpur saying that they will be employed in lucrative jobs abroad. He, later, tried to inspire Shanta and Shimu of 12-14 age to accompany him to Dhaka alluring them of jobs in a foreign country. One day Shanta saw pictures of Binu and Minu in the newspaper and came to know through it that Binu and Minu had been arrested for going abroad illegally. She then went to Quddus Mia and wanted to see the papers related to their prospective jobs and informed their family about the affair.
 - a. What is needed for healthy growth?
 - b. Write clearly what is meant by personal cleanliness during adolescence.
 - c. Lack of what type of knowledge is responsible for such a condition that Binu and Minu are in? – Explain.
 - d. To what extend had this decision of Shanta and Shimu been logical? – Analyze.

CHAPTER VII

Learning of Etiquettes among Children

Lesson 1 – Human Virtues

More than often, you need to make exchange of ideas and to communicate with your parents, siblings, relatives, teachers, neighbours and several other persons elder or younger to you and, through such a process, your virtues become apparent to all whom you make such exchanges of communications with. Taking care of others' conveniences and inconveniences, appreciation of others' views and feelings, decent behaviours, etc., together, are called as 'virtues'. Virtues are indicative of civilized behaviour and inner beauty of human beings. Beautiful aspects of one's inner self become apparent through the virtues that come out of one's behaviour.

We live in societies as social beings. Behaviour among the various members of the society needs to be courteous and gentle. Together with nurturing the sense of distinction between good and evil, between right and wrong, you need to nurture within yourself, longing for others' welfare, too, along with that for your own welfare. It is in this way that the principles, moral values and etiquettes of the society will get roots within yourselves. It is due to this reason that you need to learn etiquettes from the very childhood. None can become courteous or full of etiquettes overnight and all of a sudden. It needs to be nourished and cultured within oneself. You need to be courteous and full of etiquettes in order to make your life beautiful with full of successes and to establish yourselves as members of a developed nation. Etiquettes will be reflected in your polite, respectful, well-mannered, modest behaviour in the society. As future citizens of the country, you signify the future of the nation and, as such, in your growing-up as civilized, appropriate and well-behaved beings, lies the welfare of our country and also that of our nation. Etiquettes are reflected through the virtues as discussed below –

Human Virtues – Human beings are the best among all the creations of the creator. Hence, we need to possess such virtues that help prove our supremacy. Human virtues comprise the behaviours which everyone of us expects from everyone. Such behaviours are – cooperation, sympathy, patience, modesty, politeness, decency, etc. Human virtues are those which could be earned from the family. These virtues become apparent in the family through interactions with neighbours, relatives and friends.

Playing in groups helps human virtues grow more easily. While you play games being within your group, you need to cooperate with the fellow group-members. You need to obey the rules of the games and to show your integrity and righteousness. You need to be modest sympathetic, patient and friendly to your group. You need to sympathise and come to be of assistance to your fellow group-members as any of them gets injured during the game. You need to be above self-interest and to come to be of assistance and benefit to others in the group in order to have your generosity well-reflected. It is thus that the human virtues within yourself help develop your individual character.

Let us now throw some light on Sadia. Sadia is a student of Class VI. Her relatives, teachers, class-mates and others in the school are very much impressed of her politeness, modesty, righteousness, sense of respect, cooperation, generosity and friendly behaviours. She always says 'salaam' and shows her respect to elders and entertains guests. She is very much sympathetic and polite to her poor relatives, poor neighbours and domestic helps working in her house. She is affectionate to and full of love for children, too. She always cooperates with her fellow class-mates.



Expression of sympathy (donating warm clothing to the poor).

She does not tell lies and behave in improper ways. She keeps her word. She admits her offences and shortfalls easily. For this reason, she is liked by everyone – younger and elder alike. Sadia respects her parents very much and follows them as ideals for her.

By now you are quite familiar with Sadia and that she is liked by all for her human virtues. None would have certainly liked her, had there been malice, envy, vanity, arrogance, etc., in her behaviour or had she been used to telling lies or had she been not true to her word. Hence, you need to strive for attaining human virtues in order to be acceptable and liked by the creator and also by all persons.

Task 1 – Enlist the behaviours that are and are not liked by you.

Task 2 – Whom do you follow as your ideal, and why?

Lesson 2 – Respect for Elders and Teachers

Elders command your respect. Among your relatives, your parents, elder siblings, grandparents, uncles and aunts – all comprise elders within your family. Besides, it is your moral responsibility to show respect to your teachers and elderly neighbours irrespective of professions. This is an example of polite behaviour. Obeying elders is a means of showing respect to them. Elders will like and love you if you, too, are respectful to them. Love is created out of respect.



Nursing old grandfather

Listening to grandfather about the War of Liberation

You may, at this point, ask how to show respect to elders. The answer is as following :

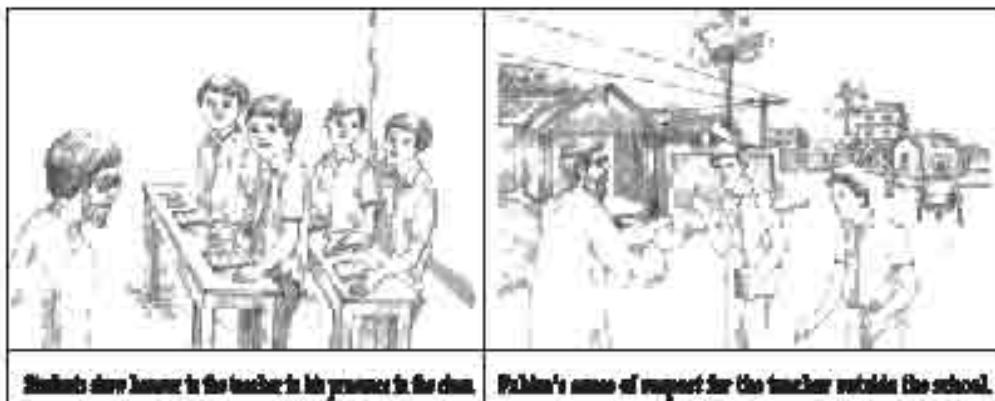
Means of showing respect to elders

- Say ‘salaam’ greet elders and exchange well-wishes
- Be attentive to what elders say. Do not interrupt them while they talk to you.
- Obey elders and cooperate with them when they need it.
- Express your views with due respect in case you do not agree to what an elderly person says or does.
- Nurse old grandparents in your house, give them company and talk to them as they are unable to do their own work due to their old age and are lonely. Besides, you can learn much through talking to them, too.

Your grandparents had brought up your parents in the same way your parents brought you up. They love you very much. They have been loving you much since the period of your early childhood and praying for you as well. Hence, you ought to be careful lest they get pain due to anything or any kind of behaviour from anybody. Your courteous behaviour and sense of honour for the elders will help you earn their love and affection and make your social life well-coordinated and disciplined.

Task 1 – Write what you need to do toward your old grandparents

Respect to Teachers – Teachers are the ones who shape human minds and build them to perfect human beings. Teachers impart you knowledge with which you shape your present and future. Teachers are next to your parents. You need to take your lessons from your teachers with due sense of honour for them. Teachers try to rear their students up in the same way they do for their own children. You ought to follow the ideals set out by your teachers. Be attentive to the lessons your teacher teaches. It is your responsibility to be modest and gentle toward them.



Students show honour to the teacher in his presence in the class.

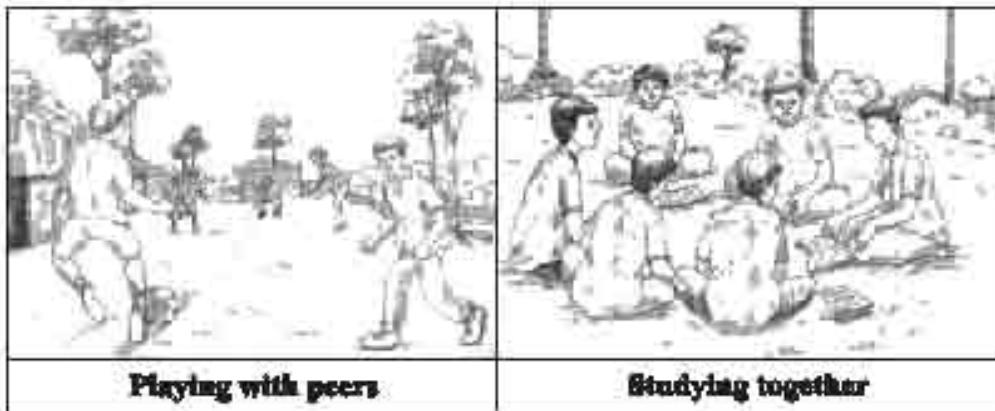
Fahim's sense of respect for the teacher outside the school.

Fahim, a student of Class VI does not hesitate to stand up and show respect to the teacher in his presence in the class-room. He is very much attentive to what the teacher teaches. He accomplishes the class-work and the home-work in time assigned by the teacher. Besides, he shows respect and honour to the teachers outside the class-room and outside the school, too, in the same way he is used to do inside the class. Everyone praises him for his such a good behaviour. Relationship that you need to have with your teachers should be intimate and based on honour and respect. This will help create better and desired environment for learning.

Task 2 – Describe how you will show respect and honour for your teacher outside the class-room and outside the school.

Lesson 3 – Behaviour with Contemporaries and Responsibilities and Affection toward Youngsters.

We all like company. Our lives become full of comfort through living along with mutual company among us. Such type of mutual attraction exists more among



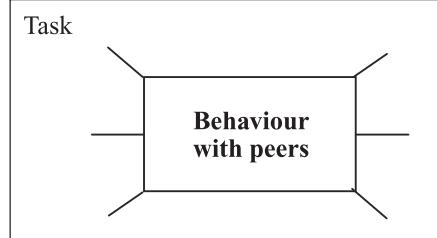
Playing with peers

Studying together

contemporaries. Contemporaries have, among themselves, similarities in thinking in the same way as they are similar in their ages. Friendship is created among those contemporaries, who have more similarities in thinking. We exchange ideas with our friends. Those who are well-behaved, do not cause harm to others, obey rules and regulations and are polite and sympathetic to others, are better. Besides, yet another yardstick of making selection of friends is mutual trust.

Russel and Milon are class-mates and good friends. All other class-mates like them. They perform top both in studies and in games. They compete between themselves in studies but are not envious to each other, rather, each of them has his own self-confidence. They play football game in the school in two separate groups. Both of them have their own ideals. They exercise patience in works, sympathise others in hours of pains and hardships and come to be of assistance according to their capacities. They are capable of making appropriate decisions. All the class-mates and the members of various groups are very much glad and of high appreciation of such type of their virtues and qualities. One day, Milon's group got defeated in the game. None could accept it. Such an affair led Milon to have discussion within the group-members about their weaknesses and rules of the game. As a result everybody accepted the defeat. It had been Milon's wisdom and judiciousness that could suppressed the aggressive attitude of those who could not accept the defeat of the group. There were some elements in the class who were apt to quarrel and liked fighting. Russel and Milon sat together and decided to include these elements in their groups for playing the game. They divided these elements between the two groups to which they belonged. Strict orders were given to those elements in both the groups to obey the rules of the game and maintain discipline and appropriate environment all throughout. After some days of playing, considerable improvement was noticed in the nature of these elements.

Now you can easily understand the extent of influence of friends of your age. There are several of such needs in socialization process which parents or teachers are unable to fulfil. In such cases, friends of the same age can play significant roles.

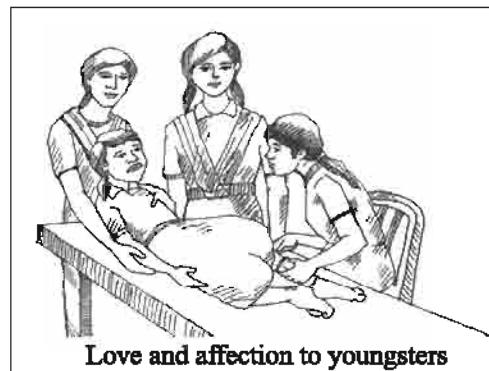


Responsibilities toward Youngsters – You are students of Class VI. There are many others in the school who are among your relatives and neighbours and are younger than you. You have significant number of responsibilities toward them. These are –

- Give them your love and affection.
- Advise and encourage them to good work.
- Refrain them from doing bad work and explain the ill effects of bad work to them.
- Try to imbibe them with sense of righteousness and injustice and self-confidence.
- Cooperate with them, if needed. But you need to set examples of good work in front of them so that they follow you. Remember, the youngsters always learn through following their elders.

Nipa, a student of Class II got her feet injured while playing in the playground and started crying. Malati of Class VI and her friends took up Nipa onto their laps and took her to the Teachers' Room, applied ice to her feet, tried to make her cool through fanning and wiped her face with handkerchief wet with fresh water. This made Nipa gradually come round. Nipa was charmed at the affection, love and sympathy of these elder sisters.

Malati saw a tiny boy eating banana. She saw that the boy threw the banana skin on the road. Malati called the boy and asked his name and advised him to collect the banana skin from the road and throw it inside the dust-bin. People get their feet slipped due to banana skins and get injured. Besides, throwing garbage here and there makes the environment dirty. The boy understood what Malati had said and promised not to repeat such things in future.

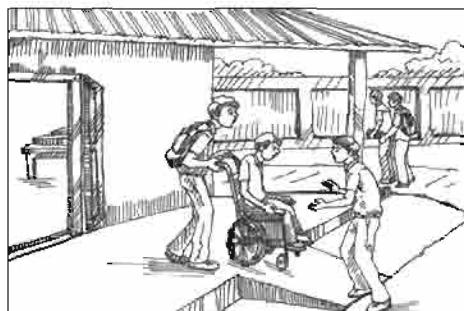


Love and affection to youngsters

Task 1 – Write what you had learnt from Nipa and Malati.

Lesson 4 – Behaviour Toward the Handicapped, Maintaining Family Secrets

We find around us various persons who are without their limbs, blind, deaf, dumb, having irregular body structures, with intelligence much less than normal, etc. They live with much hardship. But they are not responsible for such states they have been in. Everyone wants to live a normal life. You have significant number of responsibilities toward such handicapped children, too, if you come across any of them. Your kind and good behaviour will inspire them to go forward. We all have our responsibilities toward them so that they are not neglected, they can be among us in the society, they can work according to their abilities, they can get educated.



A handicapped child in the school on a wheel-chair



A blind child holding a white stick

There is a handicapped student in the school where Ratan and his friends read in. The boy, named Milon, is physically handicapped and comes to the school on a wheel-chair. Rattan and his class-mates push the wheel-chair, lifts him onto the verandah and takes him inside the class-room with much labour. Ratan thought of a ramp as the means of relieving them of the above labour they have to undertake everyday. He discussed it with the Class Teacher and later, along with his friends, made a slope at one side of the steps leading to the verandah by means of clay. Afterwards, the school authorities laid bricks and cement on the mud-slope and converted it to a complete ramp. This has facilitated Ratan and his class-mates in taking Milon to the class-room at ease. Sincerity among the class-mates, teachers and school authorities, thus, showed Milon the way to move forward. Besides, there is quite a number of children in the society who are handicapped in vision, hearing, speaking and intelligence. Make good gesture with these children, cooperate with them at times of need, play with them give them your company and assist them while crossing the roads, if you come across any of them or if any or several of these children are your class-mates or are among your neighbours. Behave with them in such a way so that they do not consider themselves helpless.

Task 1 – How would your behaviours be toward a person handicapped in vision.

Maintaining Family Secrets – All of you live in a family along with your parents and siblings. Relatives are also there in a number of families. You have among yourselves intimate exchange of views and ideas and strong bond of affection and love within the family. In spite of the above, living closely together inside a family may, sometimes, result in occasional incomprehensiveness and conflicting ideas. Such happenings need to be kept concealed within the family members only. Besides, matters related to financial affairs and valuable assets, if exposed in the family, should also be kept concealed as above. Such affairs, if becoming public, may jeopardise the family security and cause uncalled-for troubles. Hence, the matters or the affairs, which when let known to outsiders, may harm honour, status, respect of the family are the ones to be called as family secrets. You will be able to understand clearly if you go through the following story.

One day, there arose some conflicting ideas between the parents of Promi. Promi informed her neighbouring friend of such happenings. Her friend, while talking to her mother told about the above incidence between Promi's parents. After some days Pomi's and her friend's mother came across each other and the latter asked the former of the above incidence. Promi's mother felt embarrassed in such a situation. You can now understand through such happenings which had occurred as above that there are such aspects in the family which should not be discussed with outsiders. Matters that are absolutely private to the family should be kept confined within the family itself. While discussing with your friends on something you, more than often discuss affairs related to your families as well. During such occasions, you need to be careful so that the image, status and respect of any of your family members do not get harmed or tarnished. But, if you think that some of the absolutely private affairs of the family may cause degradation of relationship among the family-members, you may discuss those issues openly with your parents or with elderly or dependable members of the family. This is advised because the issues that degrade relationships, could be discussed openly among family-members toward furthering relationships and bringing about renewed peace, harmony and discipline within the family. You, too, have a significant role to play in upholding peace and discipline in the family as well as in solving various problems.

Exercise

Multiple choice questions

1. Which aspects are reflected through etiquettes?
 - a. Creativity
 - b. Physical beauty
 - c. Intelligence
 - d. Inner beauty
2. Which among the following is the greatest significance of friendship?
 - a. Sympathy
 - b. Cooperation
 - c. Good behaviour
 - d. Mutual trust

Read the following paragraph and answer to questions 3 and 4.

Ronnie is playing with his friends. Two naughty boys wished to join them but they did not like to include those boys among themselves in the game. Ronnie told his friends to take those boys in the game and that he would watch their performance. He asked the boys to abide by the rules of the game.

3. Which of the following is reflected in Ronnie's attitude?
 - a. Sacrifice of interest
 - b. Sympathetic behaviour
 - c. Righteousness
 - d. Sense of idealism
4. Changes that may occur to the naughty boys' mentality –
 - i. Removal of envy
 - ii. Improvement in morality
 - iii. Creation of a sense of cooperation

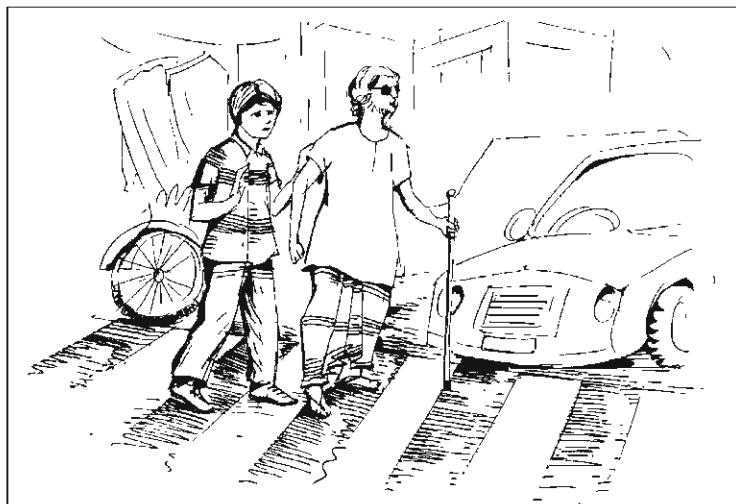
Which of the following is correct?

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

Creative questions

1. Konok is a student of Class VI. He comes to the class punctually every day. One day, as the class started, he took his seat on the front row. After sometime, Shahida entered the class and found all the seats on the front row bench occupied. She kept Konok's bag on the second row bench and asked him to move there. Konok, at first, got displeased at such type of behaviour of Shahida, but sensing unpleasant circumstances, he moved to the second row. The Class Teacher noticed what had happened and said that each of the students needed to acquire higher human virtues side by side with formal learning process.

- a. What are human behaviours?
 - b. Why do human virtues get developed through play in groups?
 - c. Explain what type of learning has influenced Konok's behaviour.
 - d. Evaluate Shahida's behaviour in the light of comments made by the Class Teacher.
2. See the picture below and answer to the questions:



- a. Who shapes human beings?
- b. Explain how one becomes respectful to elders.
- c. Explain what type of etiquette is reflected from the behaviour of the boy in the above picture.
- d. Such behaviour of the boy helps create good relationship among all the members of the society. – Discuss.

Section-C

Food and Food Management

In this unit we will learn about food, nutrition and health, relation of food with nutrition, relation of food and nutrition with health, relation of food and nutrition with cleanliness, different functions of food and the elements as well as the source of food. We will come to know about the food value of different foods such as rice and wheat, fish, meat and egg, pulse and nut, vegetable, fruit, oil and ghee. In addition we will get idea about calorie, balanced food, food pyramid and the nutrition needed during puberty.



By studying this Section we will be able to:

- explain the concept of food, nutrition and health
- explain the correlation between food, nutrition, health and cleanliness
- know the sources and functions of food
- understand the importance of food nutrition and balanced food
- select the right type of food
- explain the negative sides of fast food and food color
- understand the wrong conception about taking food and its bad effects
- understand the necessity of exercise and physical work to maintain good health

Chapter VIII

Food, Nutrition and Health

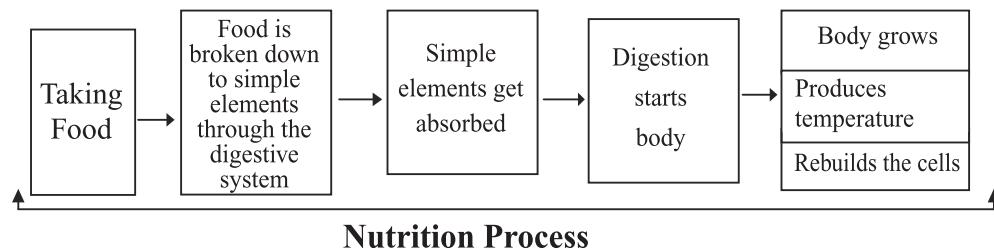
Lesson 1-Food, Nutrition and Health

Food: All living beings need food to survive in the world. We eat different types of food every day. Human cannot eat everything as food. Only the things those are digestible and do different functions for body, people take those as food. So the things that give nutrition for body are known as food. Raw material of our body is food. Through the following table it would be clearer:

<ul style="list-style-type: none">• Meets hunger• Fulfill the loss of energy and ensures growth	<ul style="list-style-type: none">• By controlling the internal functions of body it keeps the body fit• Produce temperature of the body
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Nutrition: We take food in complex condition. In this condition they can't work for body. After taking food the complex food turn as simple elements. Human body takes these simple elements so that these become consumable. After consumption these do different functions for body such as produce temperature and energy, make new cells for the growth of the body, rebuild the lost cells, prevent the diseases and keep body healthy and fit. This process is called nutrition. In short nutrition is a physical process.

This process is shown through the following diagram.



Process of Nutrition

So it is clear that process of nutrition is not only one process. This is the total system of several continuous physical processes.

Health: We all know that "Health is wealth." Sometimes we think that fat body means health and slim body is ill health. Actually by visualizing the fat or slim it is very hard to know the physical condition. Sometimes the fat persons can do a very little work. He becomes tired very easily and do not get interest in work. He

looks pale. Have sleeping difficulties. Often suffers from diseases. So it is clear that several things are related with health such as physical condition, ability to work, mental condition, immunity etc. According to World Health Organization the definition "Health is the satisfactory physical, mental and social condition which is free of sickness or weakness."

Following characteristics are noticeable in a healthy person-

1. Body will be fit and capable to do work with sufficient energy
2. Body weight will be normal
3. There will be no sickness and have interest in work
4. Will stay in happy mood
5. Have resistance power and will not be sick frequently
6. Have smooth skin. Hair will be shiny and glossy
7. Sleeps regularly and passes urine and stool habitually
8. Shows normal physical and mental reactions

Task 1 – Make a list of your own daily food which you take.

Task 2 – Write the characteristics of healthy person which you have.

Lesson 2- Relation of Food, Nutrition and Health

Relation between food and nutrition: To survive we take food. There is another reason to take food and it is to supply nutrition. Relation between taking food and nutrition is very close. If people can't take food on regular basis for few days then body becomes weak, resistance power reduces, suffers from different diseases, loss memory. In short malnutrition occurs and if this situation continues for long time man dies. When required food is taken according to the need of the body, then body gets energy to do work, resistance power increases, doesn't become sick frequently, proper development of intelligence and natural healthy condition will be visible.



Various nutritious foods help body stay healthy

Relation of health with food and nutrition- Human body needs more than 45 nutritious elements to stay healthy. And these come from food. Without nutritious food it's not possible to maintain good health. When someone takes less food than the requirement, he/she suffers from malnutrition such as underweight, suffers from several mal nutritive diseases and loses memory. On the other hand if one takes more food than gets over nutrition as a result put on overweight, increase the chances of several diseases like high blood pressure, heart diseases, diabetes etc. Therefore balanced nutritious food ensures good health.

To keep the body healthy, fit, well and for proper development of intelligence, it is essential to take balanced nutritious food. So it is clear that the relation of health with food and nutrition is very close. Good physical condition shows good health. It increases the possibility of long life. Following table will help us to understand that without balanced food we can't ensure good health

Physical condition without Nutritious food	Physical condition when the required quantity and balanced nutritious food is taken	Physical condition when more food is taken than that what is necessary.
If the food is taken which is not nutritious ↓ Malnutrition occurs such as underweight, less growth in height, loss of memory and various diseases due to malnutrition.	If balanced nutritious food is taken ↓ Malnutrition occurs such as condition such as exact weight, proper development of intelligence and maintains good health	If more food is taken than requirement ↓ Body shows the condition which is the result of taking over nutrition such as becoming fat and several diseases

Table: Relation among health, food and nutrition

Task 1 – Write about the problems which you may face due to taking over or less eating.

Lesson 3- Relation between food nutrition and cleanliness

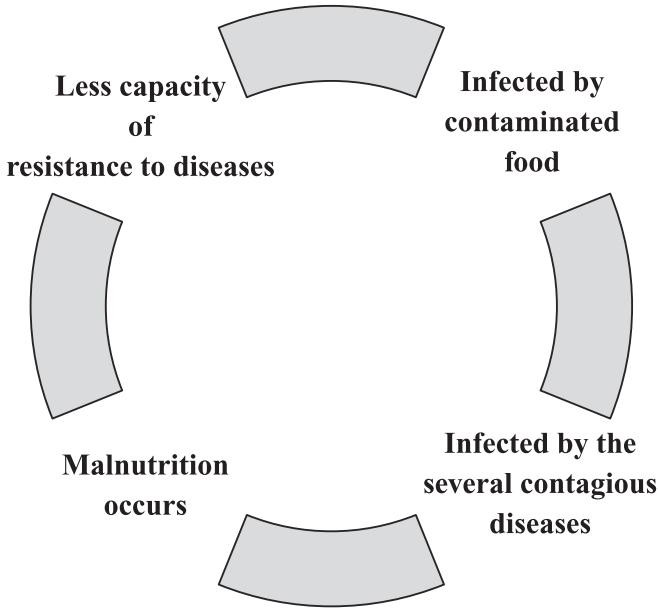
To maintain good health it is essential to ensure neat and clean environment with balanced nutritious food. There is close relation between nutrition and cleanliness. Through the following table we can understand the impact of cleanliness on health.

Cooking and eating in an unclean environment	Food is infected → with germs	Taking infected food	→	Body becomes sick and nutrition is not ensured
Cooking and eating in a neat and clean environment	→ Food is safe	→ Taking safe food	→	Body gets proper nutrition

Here neat and clean environment refers all the hygienic conditions such as place of the cutting and chopping, use of water to clean food and the place for cleaning, the utensils for cooking, the place for keeping the food after cooking, eating place, personal cleanliness of the cook and server etc.

Unhygienic environment is the source of different germs of the diseases. So cutting or chopping food, cooking and having food in this kind of unhygienic condition carries several germs which infects the food as well. When this food is taken the body becomes sick. Such as a mother has given nutritious food for her child but the child has taken the food with dirty hand and he is caught by diarrhoea. As a result he loses the essential nutrition from body and becomes weak. In this condition due to the less resistance power the child may be infected by the other germs or diseases. So it is clear that the nutritious food and hygienic environment is not maintained the chance of becoming sick increases. This is called the awful cycle of malnutrition and unhygienic environment.

Diagram – The Vicious Cycle of malnutrition and unhygienic environment



Through this vicious cycle it is apparent that due to unhygienic environment even the nutritious food can't keep body healthy as a result diseases caused by the germs and bacteria.

So, in short, to maintain good health it is essential to ensure taking nutritious food in hygienic condition.

At the end it can be said that, by maintaining hygienic condition during preparation, cooking, serving and eating of food, risk of spreading the germs and the chance of attacking the diseases will be minimized. To ensure these conditions it is essential to wash hands properly with soap before each activity.

Task 1 – Write about the problems which you may face due to taking food in unhygienic environment.

Task 2 – Discuss how you can prevent this problem.

Lesson 4- Function of Food

The nutritious elements which persist in food do several functions for our body. Such as:

- 1. Building the body and ensuring growth:** The main function of food is to build the body and ensure growth. For a child's growth and development it is essential to give nutritious elements. After taking birth the child grows, becomes taller and puts on weight. The nutritious elements of food ensure these.
- 2. Repairing the loss:** Always our body is losing strength. To repair this loss body needs food. There are several nutritional elements in food which repair this loss. Always old cells are dying because of that few elements come out of body. Nutrition from food helps to rebuild the cells. If our hand cut then it recovers through nutritious food, this example proves that food repairs the body too.
- 3. Producing temperature and giving energy:** To run a car, fuel or gas needed. This fuel turns into energy as a result car can run. Like this the nutrition of the food works as fuel for the cells of the body which produces energy. So we are active and can do many works. To stay alive our body needs energy for blood circulation, respiration, digestion of the food and to pass urine and stool. When do we sleep the energy is burning. For walking, playing, talking and doing any kind of work we need energy. In short the energy we get from food is very much essential without this we can't stay alive.
- 4. Controls internal functions:** Internally several functions are happening in our body. Such as food digests, nutritional elements burn to produce energy etc. these functions are not visible from outside. But to do these functions food is needed.
- 5. Develops resistance power:** Everyday our body is infecting with many germs. To prevent these germs we need to develop body's natural resistance power. When we eat different types of nutritious food we can prevent the diseases and stay fit. Due to the lack of nutrition, our body losses the resistance power. For that the tendency of becoming sick increases.

Through the above discussion we can tell that, food is not only meeting our hunger, it performs several functions in our body. So, we need to eat enough quantity of essential food to keep the body healthy.

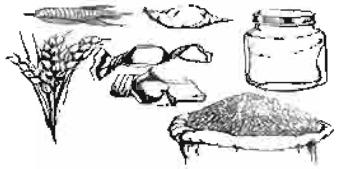
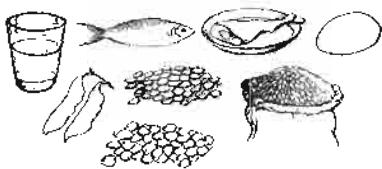
Task 1- What are the functions food do for your health?

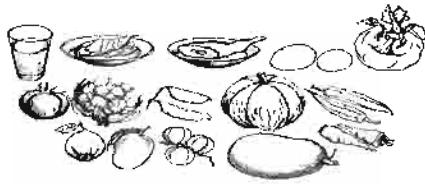
Task 2- What are the problems you may face if you do not eat properly?

Lesson 5- Elements of Food and Source

When the food is analyzed the elements we get are known as food element. These elements are mainly physical chemical elements. These elements do several functions in our body means give nutrition, so these are known as nutritional elements. Nutritional elements are mainly six types. These are 1.carbohydrate 2.protein 3.fat 4.vitamin 5.minerals and 6.water.

Among these on the basis of desolation vitamins are two types. One dissolves in water and another one dissolves in fat. The vitamins dissolve in water are vitamin B- Complex and vitamin-C. Vitamin B- Complex is not an only vitamin. Almost 15 vitamins are together known vitamin B- Complex. Among these some are important like- Thiamin or B1, riboflavin or B2, Niacin, Pyridoxine or B6, folic acid and cyanocobalmine or B12. Four types of vitamins dissolve in fat. These are vitamin-A, vitamin-D, vitamin-E and vitamin-K. Among the minerals calcium, phosphorus, potassium, sodium, chlorine, magnesium, iron, manganese, zinc and iodine are important.

Pictures of the Nutritious Food	Main Food Sources of six Nutritional Elements
 (Pictures of carbohydrate food)	Carbohydrate- Rice, corn, oat, wheat, sago, potato, sweet potato, sugar, sugar cube, molasses, candy, chocolate etc.
 (Pictures of protein food)	Protein- Animal protein- fish, meat, egg, milk, cheese, cottage cheese etc. Vegetable protein- different types of pulse, soya bean, nut, rice, wheat, seed type food etc. (Pictures of fatty food)
 (Pictures of fatty food)	Fat- Vegetable Fat- soya bean oil, mustard oil, different types of nuts' oil, coconut oil etc. Animal fat: Ghee, butter, cod-liver oil, shark's oil, fat of the animal and bird etc.

 <p>(Pictures of food containing vitamins and minerals)</p>	Vitamins and Minerals- Animal Sources- sea fish, egg yolk, leaver, cheese, milk and milk product Vegetable Sources- Husking pedaled rice, different types of pulses, sweet potato, different types of vegetable such as okra, papaya, snake gourd, gourd, egg plant, tomato, pumpkin, carrot etc. Different types of fruit such as emblica, guava, hog-plum, custard apple, sapodilla, mangosteen, jujube, grape fruit, wood apple, lemon, ripe papaya, mango, ripe jackfruit etc.
 <p>(Pictures of the sources of water)</p>	Water- All kind of liquid drink, green coconut water, juicy fruit.

From the above table we know the source of the elements of nutrition. Each and every nutrition element has important function. If we include different types of food then we can meet the need of the nutritional elements.

Task 1 – Write the name and draw the pictures of 3 sources of each of the 6 elements of food.

Exercise

Multiple choice questions

1. How many nutritional elements are essential to keep human body healthy -
a. 40 b. 45
c. 50 d. 55
2. Which quantity of food does human body need to get ensure nutrition -
a. Small quantity b. sufficient quantity
c. more nutritious d. enriched with vitamin

Read the following paragraph and answer questions 3 and 4:

Rumna studies in class six. She feels very weak and often wants to sleep. Her class-mates are taller than her and healthy.

3. Reason of Rumana's this condition
a. Doesn't take nutritious food b. Doesn't take adequate sleep
c. Doesn't do adequate exercise d. Doesn't play on time
4. What are the solutions to resolve Rumana's these problems
i. Have more food than needed
ii. Have balanced nutritious food
iii. Have more different types of food elements

Which one of the following is correct?

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

Creative Question

1. Shupti and Kanto have come to visit their uncle's place; their cousin noticed that Kanto's body is looking fatter. While Hema wanted to know the reason of fattiness, Auntie told that Kanto is getting fatter though he is taking small quantity of food. Auntie also told that last few days Shupti's eyesight becomes hazy at evening.

- a. How many elements are there in food?
 - b. Write what is the loss of body strength?
 - c. Explain how the physical condition is Kanto in the given information?
 - d. Is the lack of knowledge regarding food elements responsible for Shupti and Kanto's physical condition?
2. Look at the following pictures and answer the questions:



Picture-1



Picture-2

- a. What is nutrition?
- b. What is the relation between food and nutrition? Explain.
- c. Explain the advantages of having food in picture-2?
- d. As picture -1 if someone takes food in that environment, what are the long-term problems that can arise according to the "Vicious Cycle"? – Explain clearly.

Chapter IX

Nutritional Value of Food

Lesson 1- Rice and Wheat



Food Value of Rice: Rice is the main grain type food of Bangladesh. Basically there are two types of rice available here, these are boiled rice and not boiled rice. In addition there are husking pedaled rice and mill made rice. Food value is more in boiled rice compare to not boiled rice. On the other hand food value is more in husking pedaled boiled rice than mill made rice. In any kind of rice there is almost same quantity of food value. Rice is the main source of carbohydrate.

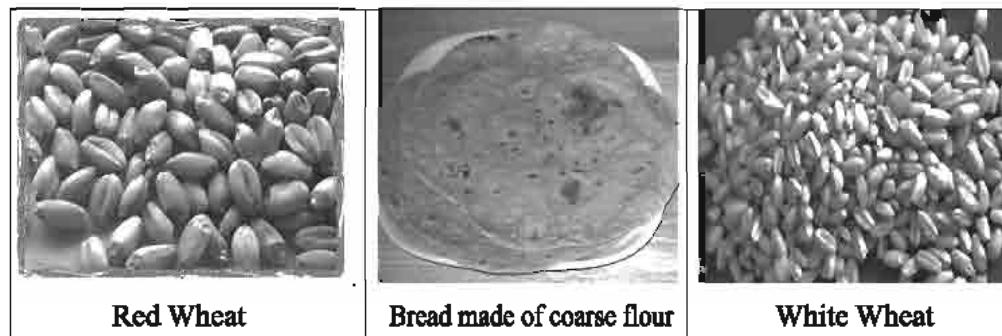
Food value of Rice at a Glance

Main Food element	Other mentionable Food elements
Carbohydrate	Protein, thiamin, riboflavin, niacin,

Protein is somewhat more in quantity in boiled pedal husked rice than in other rice varieties. If we drain the water from the cooked rice then many essential nutritious elements goes off. So the rice is better which one's water is not drained than the rice from which the water is drained. Rather than rice, fried rice(muri), chira and parched rice can be made from paddy. The food value of these foods is almost same as rice. Now a day the golden rice is available which is enriched with carotene and nutritious too.

Task 1 – In which way do you need to cook rice to keep the nutritional value intact?

Nutritional value of wheat- Wheat is the second food-crop of Bangladesh. Nutritional values of coarse flour and semolina are more than that in fine flour. When wheat is ground to coarse flour, bran comes out.



From the wheat almost the same amount of food energy can be obtained like that from rice. Nearly equal amount of food energy is available in all kinds of food prepared from coarse flour. Protein is somewhat more in quantity in coarse flour than in bran and fine flour.

Food value of Wheat at a Glance

Main Food element	Other mentionable Food elements
Carbohydrate	Protein, thiamin, riboflavin, niacin, vitamin-E

There are two kinds of coarse flours available in market now – one is white coarse flour from which bran is removed. There is another kind from that the bran is not removed. The coarse flour with bran inside is better for health than the one without bran. Food value of white course flour, semolina and fine flour is less than the course flour containing bran.

Task 2 – Write the names of various food items made by wheat and describe their respective nutritional values.

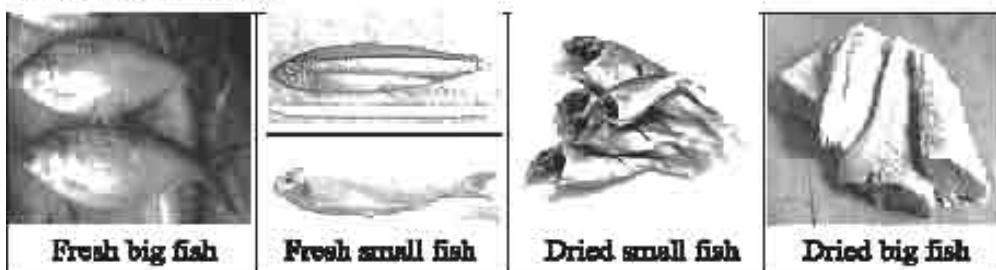
Lesson 2- Fish and Meat

Food value of fish: Fish is a very good source of animal protein. There are fat and minerals in fish, too. Though there are some fat-containing but such fat in fish is less compared to meat. There is less fat in taki, ruhi, bele, foli, katla, bata, baim, mrigel, cat fish, mola, dhela and shrimp are mentionable. In kholsa, chela, puti, kajoli, boal, and shol contain medium type fat. Hilsha, Shilong, pangas, koi, shorputi etc have more fat. In which fish the fat is more that is tastier and has good food value.

Food value of Fish at a Glance

Main Food element	Other mentionable Food elements
Protein	Fat, vitamin-A, d and E, calcium, phosphorus and iron

Dried fish is very popular in some regions of Bangladesh. Dried fish contain protein 2 – 3 times more than that in fresh fish. Besides, calcium and phosphorus are also much higher in quantities in dried fish. Among fried fishes, those with bones contain calcium.



Fish-bones contain calcium. As such, fish consumed along with bones is more nutritious. Sea fishes have iodine. From the oil extracted of livers of cod fish and shark we get enough vitamin A and D.

Task 1 – What are the fishes do you eat? Make a list of such fishes and write the nutrition you get out of those.

Nutritional value of Meat- Cow, bull, goat, sheep, duck, hen and other animal or birds' flesh is known as meat. In our country beef and mutton as well as the chicken are very popular. Except these the meat of duck and birds we eat. Meat is a very good source of protein.



The food value of meat depends on its quantity of fat. Meat is a good source of iron and phosphorus. Liver is a good source of iron and vitamin A. Calcium mainly persists in bone. Calcium is very less in bone less meat. Meat and liver are the good sources of thiamine, riboflavin, niacin, B12 and other B vitamins.

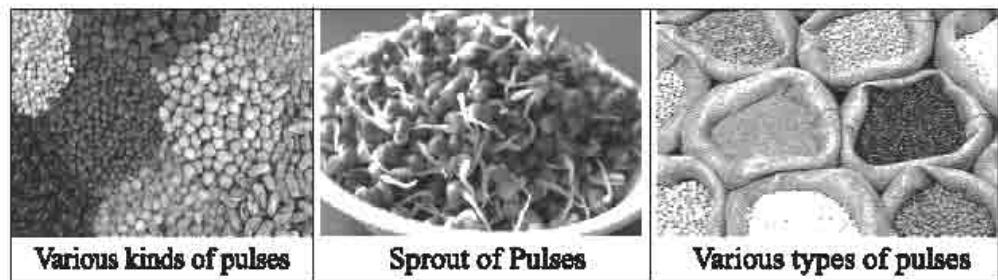
Food value of Meat at a Glance

Principal nutritional element	Significant other nutritional elements
Protein	Fat, thiamine, riboflavin, niacin, B12 , vitamin-A, d and E, calcium, phosphorus and iron

There is less fat in native hen and birds' meat than other animals' meat. Farm's hen and duck are fatter. In duck and hens' lever there is iron and this is good source of vitamin A, D and B too.

Task 2 – Make a list of the foods which you have are made of fish and meat.

Task 3 – Explain the nutrition you will get from these foods.

Lesson 3- Pulse and Egg

Nutritional value of Pulses - Mung, lentil, chana, khesari, mashkolai, arhor are pulse type of food. Presence of significant quantities of protein in pulses make them inclusive of protein foods. Pulses contain fats significantly less with more of carbohydrates. To meet the need of protein pulses, can be taken instead of meat.

Food value of Pulses at a Glance

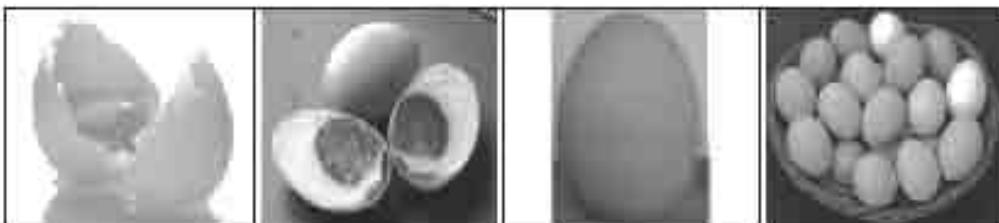
Principal nutritional element	Significant other nutritional elements
Protein	Carbohydrate, thiamine, riboflavin, niacin, calcium, phosphorus and iron

Pulses are very good sources of thiamine, riboflavin and niacin. Whereas, calcium, phosphorus and iron are present in them as minerals in small quantities.

Sprouts come out as chana, mung, makhai, etc., are kept in wet places for 3 or 4 days.

Task 1 – Write which pulses between dry pulses and sprouted pulses you think is more nutritious than the other and why.

Nutritional value of eggs - Among the protein type foods egg is the best. All the elements necessary for adequate and all-round development of a human body are present in eggs. Eggs contain significant quantities of proteins, fats, vitamins and minerals. There is difference between the white (egg white) and yellow portion (egg yolk) of the egg. There almost no fat in the white portion. Egg yolk contains iron and phosphorous in good quantities. Besides, there are good quantities of thiamine and riboflavin, too, in eggs.



Eggs

Nutritional values of Eggs at a Glance

Principal nutritional element	Significant other nutritional elements
Protein	Vitamin-A,D, thiamine, riboflavin, niacin, phosphorus and iron

Quality of egg protein is very high and works 100 percent in body. In our country duck's egg is also available, which is little bit bigger than hen's egg and contains more food energy values.



Comparison between a
goose egg and a hen's egg.

Duck's egg contains vitamin A in larger quantities than that of hen's egg. Besides, being larger in size, duck's egg has the nutritional elements in greater quantities than those present in hen's egg. Moreover, eggs of geese are also available and are consumed as food in our country. As size it is the biggest among these three eggs, its food and nutritional values are more than the eggs of ducks and hens. It is 4 times bigger than a hen's egg and, hence, its food and nutritional values, too, are as much.

Task 2 - In consideration of the food values, which type of eggs do you prefer to have and why?

Lesson 4 - Vegetable and Fruit

Food values of Vegetables and Fruits - Vegetables and fruits comprise an essential part of daily diet. Vegetables and fruits contain, mainly, carbohydrates, vitamins, minerals and water. As fruits and vegetables contain abundant vitamins and minerals, these cater to the need of natural nutrition of the body, resist the body from diseases and malnutrition. To stay healthy it is essential to keep fruit and vegetable in our everyday's diet.

Nutritional values of Vegetables and Fruits at a Glance

Principal nutritional elements	Significant other nutritional elements
Vitamins, minerals and water	Carbohydrates

Vitamins and minerals of vegetables and fruits can meet the need of body. Presence of vegetables and fruits in our diets, hence, is of much importance. The food value of any vegetable depends on to which part of plant it belongs. Iodine is available in those vegetables which grow in the iodized soil. Cauliflower, green chili, capsicum, cabbage, broccoli, and tomato are the good sources of vitamin-C. Broccoli provides a good source of calcium. Beans and seed-type vegetables are good sources of proteins and vitamins. Vegetables contain fibrous carbohydrates which is much beneficial for health and metabolism.

Sweet fruits contain more carbohydrates than green fruits. Fresh fruits contain phosphorus and iron and small quantities of calcium. Lemon and berry-type fruits could be cited as rich sources of vitamin-C. Fruits having yellow and orange colours, such as, ripe mango, ripe papayas etc. contain carotenes. Vitamin B is also present in fruits in small quantities. Fresh fruits contain vitamins more. Juicy fruits meet the need of water. In our country fruits of various tastes are available during various seasons. These seasonal fruits are tastier in their respective seasons and one can get more nutrition having such fruits within those respective seasons. For good health, hence, it is necessary to have the seasonal fruits regularly. The following table indicates the nutritional elements present in various vegetables and fruits.

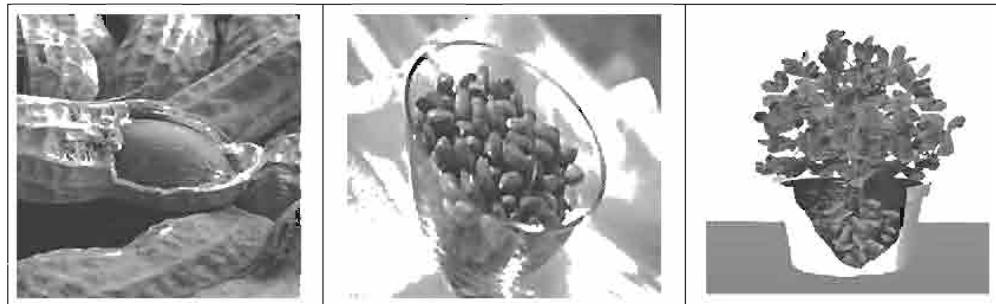
Vegetables and Fruits as Sources of Various Nutritional Elements

Nutritional	Part of plant to which it belongs	Pictures
Proteins and vitamins	Seed-vegetables and leafy vegetables	
carbohydrate	Root, stem, seed, Sweet and juicy fruits	
Vitamin-C and potassium	Leafy and floral vegetables, fruit-vegetable and sour fruits	
Vitamin-K, thiamine, riboflavin, calcium, iron and magnesium	Seed-vegetables, leafy vegetables and fruits	

Task 1 – Describe what are the functions do the vegetables and fruits in your body.

Task 2 – Make a list of the fruits and vegetables you eat and write the nutritional elements you get from them.

Lesson 5- Nuts, oils and Ghee



Peanuts

Nutritional values of Nuts - Peanut is the most common nut which grows in significant quantities in Bangladesh. Peanuts contain proteins and fats. This makes peanuts of much importance as a fatty and proteinous food. As fat-content is more, peanuts contain enough food value. Sufficient quantities of vitamin E, thiamine, niacin, vitamin B6 and pantothenic acid and small quantities of riboflavin are there in peanuts.

Nutritional Values of Nuts at a Glance

Principal nutritional element	Significant other nutritional elements
Proteins and fats	carbohydrate, thiamine, riboflavin, calcium, phosphorus, zinc and iron

Peanuts comprise a good source of phosphorus. Iron and calcium are there in little amount. Besides, manganese, potassium, copper and zinc, among other minerals, are also in peanuts. These are tasty as well as very nutritious and, hence, are liked by all.

Task 1 – Of which nutritional element do nuts comprise a good source?
Write the type of food instead of which you will take nuts.

Nutritional values of Oils - Edible oils are available from plants. Edible oil are mainly used in cooking. In mustard, sesame, sunflower, peanut, soybean, cotton seed and in corns there is enough fat. So oil can be produced from these seeds. Among the foods most of the heat energy is available in oils.



Nutritional values of Oils and Ghee at a Glance

Principal nutritional element	Significant other nutritional elements
Fats	Vitamins A, D and E

Nutritional values of Ghee- Ghee is available from animal sources. From the cream of milk first butter is made and ghee is made from the butter.



Pure Ghee

Ghee is specially used to make sweets and to prepare special dishes. Ghee is comprised mainly of fat. There are vitamins A, D, E and K in ghee. From ghee, like oil, we get much of the heat energy. Besides, it enhances the taste of food. If foods prepared with too much oil or ghee than is necessary, or foods deep fried in oils or ghee, are taken then body gains weight rapidly. So it is essential to maintain the required amount of oil in food to stay fit. Those who are overweight should avoid more oily and deep fried foods.

Task 1 – Describe the functions oils and ghee perform in your body.

Task 2 – What do you think about the problems your body may face due to taking foods with much oils and ghee?

Exercise

Multiple choice questions

1. Which of the following nutritional elements does have rice as its source?

- | | |
|-----------------|--------------------|
| a. Vitamin | b. Protein |
| c. Carbohydrate | d. None is correct |

2. One of the functions of bean seed has been to

- i. Repair the loss incurred to the body
- ii. Ensure growth
- iii. Produce energy

Which one correct among following answers?

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

Read the following paragraph and answer the questions 3 and 4

Ratan is 13 years old and his father is 45. Both of them often take ghee and sugar with rice along with other foods.

3. Due to this food habit Ratan's-

- a. energy will be increased to do work b. resistance power will be more to prevent the diseases
- c. ability to do the exercise will be reduced d. digestion power will be increased

4. Due to having ghee Ratan's father will

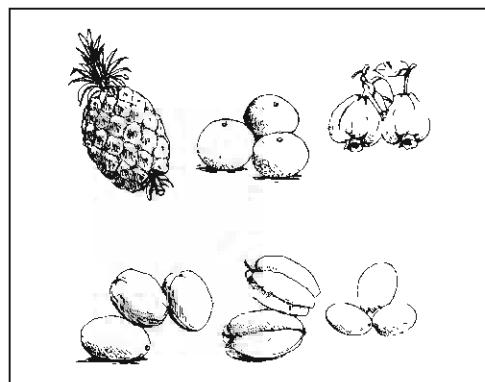
- a. get more energy to do work b. gain weight
- c. reduce the decay of bone d. increase the resistance power

Creative Questions

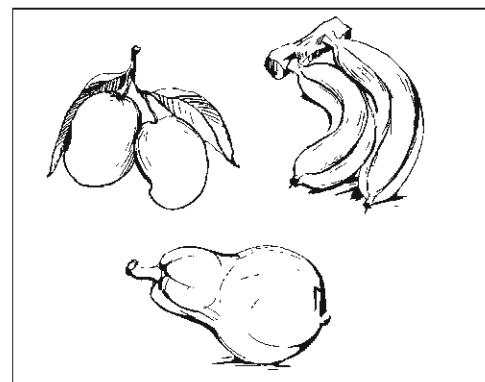
1. During summer vacation Rahela has gone to sea beach and seen the fishes are being hanged for drying. Fishes are caught from the river and ponds and being sold in the market. They are used to have this type of fishes. Rahela wanted to know to her grandfather about the reason of fish drying and he told that after certain time fishes would be dried up and then would be packed and sold in market. The demand of this fish is very high in home and abroad.

- a. Which one is the second grain/food crop in Bangladesh?
- b. Describe the food value of egg.
- c. In the above example, which food element of the body will be met by the fishes Rahela had seen in the sea beach?
- d. Discuss comparatively the differences between the fishes Rahela takes regularly and the fishes she had seen on the sea beach.

2.



Picture-1



Picture-2

- a. What is more in quantity in wheat than in rice?
- b. Explain clearly that the food element is more in pedal husked rice.
- c. Explain the kind of need of the vitamins in our body is fulfilled by these pictures?
- d. Explain why it is essential to keep the fruits shown in pictures 1 and 2 in our daily menu.

Chapter X

Need of Food

Lesson 1- Food Energy (Kilocalorie)

Badal and Kanchan are friends. They had been playing football in the playground for two hours. After a while both of them started feeling that they did not have any more energy for playing. They came back home and their mothers gave them food. Badal and Kanchan had their food and felt that they had regained their energy and were capable of doing work. So it is clear that there had been some elements in food which gave Badal and Kanchan the energy to work again. In fact there are some elements in food which provide us energy to do essential work.

Every day we take various types of food. In these foods there are some nutritional elements which produce energy within our body. Energy is essential for doing any kind of work like playing, studying, etc. We cannot visualize this energy but we can feel and measure it. We use the certain units of measurement while buying various food items. To measure liquid food we use the unit 'litre' and to measure other food items, we use the unit 'kilogram'. In the same way, the unit of measurement of the energy content of foods is known as **kilocalorie**. In other words, kilocalorie is the unit which is used to measure the energy in food items.

Everybody needs energy to survive. To do more physical work more kilocalories are needed and to do less physical work less kilocalorie is required. Such as when Badal and Kanchan watch T.V. at home they need less energy. But when they play football they need more energy. Even they need little amount of energy for sleeping too. So everyone needs the nutrition from food or kilocalorie to survive.

Sources of Energy- We get energy from food. When the kilocalories are more in any food, the more is its energy content. Examples may be cited of oils, ghee, fried foods, sugar, molasses, sweets, etc., which have more kilocalories or these foods contain more energy. On the other hand, when the kilocalories are less in any food, its energy content is less. Examples of such foods are: vegetables, cucumber, lettuce, grapefruit, guava, etc. which have less kilocalories or less energy.

Among the nutritional elements of foods, carbohydrates, proteins and fats give us energy. Fats contain more than twice the energy than that from proteins and carbohydrates.

Energy from the Nutritional Elements

- | |
|---|
| 1 gram carbohydrate contains 4 kilocalories |
| 1 gram protein contains 4 kilocalories |
| 1 gram fat contains 9 kilocalories |

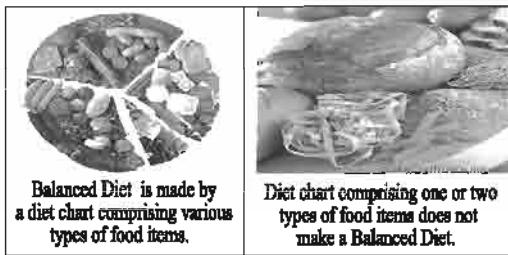
Need of this energy for any person depends on that person's nature of work, physical condition, etc. If someone does much hard working jobs, such as a rickshaw-puller, he or she will need more kilocalories. On the other hand, persons doing less laborious jobs, such as, desk work in an office, will need less kilocalories. Children, in comparison with elders, need more kilocalorie because of their growth and the number of changes they go through during their development process which do not occur in case of the elders. Moreover, when someone suffers from fever, he/she needs more kilocalories than he/she would have needed being in the normal state of health.

If someone takes kilocalories more than his/her normal requirement for long time, he/she will gain weight. On the other hand if someone takes kilocalorie less than his/her normal requirement for long time, his/her weight will become less than normal. In order to maintain normal body weight, one needs to avoid taking kilocalories both more and less than what one would have normally taken.

Task 1 – For whom are more kilocalories needed? What type of problems will you face if you take kilocalories more or less than your normal requirement?

Lesson 2- Balanced Diet

Balanced Diet- Minu and Antara are of the same age, study in same class and stay in adjacent houses. Everyday Minu takes meat and fish as well as enough vegetables and seasonal fruits along with rice and bread. But Antara does not like fruits and vegetables, she takes rice only with meat. Minu is always in good health and she does not become sick easily. So goes to school regularly, she is attentive in the class and performs well in examinations. But often Antara becomes sick very often. As such, she is unable to go to school regularly, she is less attentive in the class and cannot fare well in examinations.



Minu's everyday nutritional needs get fulfilled as she takes various types of food in sufficient quantities. On the other hand, Antara, being very much choosey in her foods, cannot get the required nutrition of every day.

So, in order to ensure ourselves healthy every day we need to take all the six types of nutritional elements as required. When the food contains required nutritional element according to the body's need it is known as Balanced Diet.

Balanced diet supplies all the essential carbohydrates, proteins, fats, vitamins, minerals, water and calories for the body. Taking only one or two food items does not make a balanced diet.

Hence, one needs to take various types of food items comprising fish, meat, pulses, rice, bread, leaves and vegetables, fruits, oils and milk, etc., everyday and in requisite quantities in order to make one's diet a balanced diet.

Ways to make balanced diets –

1. To include fish, meat, pulse, rice, bread, vegetable, fruit, oil and milk in every meal.
2. To take the required quantity of various types of food.
3. To keep the seasonal vegetables and fruits in every meal.
4. To drink 6-8 glasses of water.
5. To be cautious in preparing food so that the loss of food value is prevented
6. To ensure the daily intake of 50%-60% of the required total kilocalories from carbohydrates, 20%-30% from fats and 20%-25% from proteins.
7. To ensure cleanliness in preparing, serving and taking foods.

In everyday meals, an adult person needs to have at least 30 gm oil, 20 gm molasses or sugar, otherwise, deficiency of calories will occur. For such a reason, meals should be inclusive of oils and molasses or sugar. Use of spices is customary toward making balanced diets tasty. Spices impart not only taste to the food but supply little amounts of nutrition, too.

Importance of balanced Food-

1. Importance of balanced diet is considerable as it supplies all the nutritional elements in sufficient quantities according to the needs of our body.
2. Balanced food assumes considerable significance in ensuring supply sufficient food-energy in meeting the requirement of the body.
3. Balance diet is also required to ensure the exact quantity needed for body, otherwise if food is taken more than what the body requires and it will gain in weight and vice versa. Diets with energy-content lower than normal will cause children's growth hampered and with less resistance power.
4. Balanced diet is important in preventing malnutrition.

Task 1 – Make a list of your daily diet and check whether it is balanced or not.
In case it is not balanced, what will you do to take balanced food?

Lesson 3- Food Pyramid

Food pyramid is a kind of guideline which indicates, through pictures, the type and quantity of food to be taken. In short, the food pyramid provides an idea of the food along with its type and quantity to be taken in order to make it a balanced diet.

The food pyramid shows the meals we need to take daily in 5 (five) groups. From the bottom these steps are-

First Step- Water: It is very much essential for survival. Every day we need to drink 6-8 glasses of water.

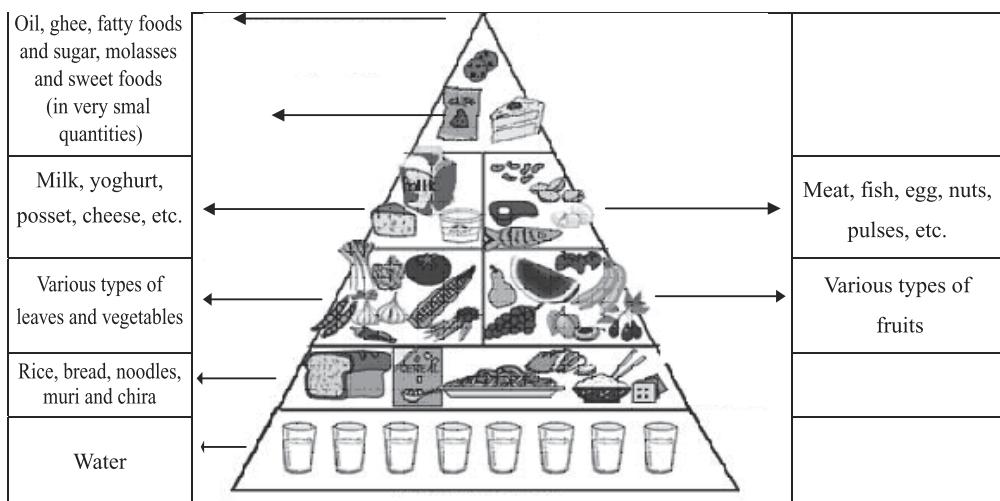


Diagram-Food Pyramid

Second Step- Grain and Grain Food. These are rice, bread, noodles, muri, chira etc. From this type of food we get energy.

Third Step- Different types of fruit and vegetable. These are leaves, vegetables which grow under the soil, other vegetables, sour fruits etc. From these types of foods we get vitamin and minerals.

Fourth Step- Meat, fish, egg, nut, pulse, milk, yoghurt, cottage cheese, cheese, etc. are protein type food. Rather than protein different vitamin and minerals are also available in these foods.

Fifth step- In this step there are oil, ghee, fat type food, sugar, molasses and sweet type food. From this type of food we can get sufficient energy. So it is required to take this type of food in small quantity otherwise body will become overweight.

If we take food from the different steps of food pyramid according to the daily requirement of the body then we will get the essential nutritional elements and diet will be balanced.

Task-1 Mention the foods you take every day belong to which type and show it through a food pyramid.

Lesson 4- Nutritional Needs during Adolescence

Nutrition is very much needed during adolescence due to several changes in body. For boys during 12-15 years of age and for girls during 10-13 years of age, more nutrition is required. Due to physical growth, need of food is more during adolescence.

Energy- Due to the physical growth and increased loss of energy, need of energy increases. Need of energy varies depending on age, type of labour and on whether



Playing games and physical labour cause increased nutritional needs during adolescence

the adolescent is a boy or a girl. Up to the age of 9 the need is almost same for boys and girls. From the age of 10 the need changes remarkably. From this age boys need more energy than girls. From the beginning to the end of adolescence, need of the energy increases gradually by age. And the children who do more hard work and play a lot, need more energy.

Carbohydrate- For children of this age group, it is essential to keep carbohydrates in the menu to make healthy diet plan. Carbohydrate is available in grains, fruits and vegetables. In everyday's menu, it is essential to keep carbohydrate due to the increased need.

Protein- During adolescence need of protein is more because of the rapid growth of the body. In this age meat, fish, egg, nut, pulse, milk and other protein type food is very much essential. Due to the lack of protein growth hampers in adolescence.

Fat- During adolescent more energy is needed; as such presence of fat in the food is important. However food with excessive fat like fast food leads to overweight. That is why it is better to avoid food with fat and fast food.

Mineral – At this age different types of minerals like calcium, iron, zinc are important. For the growth of bone, calcium is required. Zinc is required for the growth of other parts of the body. For blood growth iron is required. Boys need more iron than girls. Plenty of mineral can be found in different types of fruits and vegetables.

Vitamin - During adolescence, among the different types of vitamins, requirement of Thiamin, Rivophlovin and Nayasin increases. These vitamins increase the body growth very fast. For blood formation need of folic acid, vitamin B12 and vitamin B6 increases. In addition, for the growth of different body cell vitamin A, vitamin C and vitamin E should be taken according to need. For the development of bone vitamin D is necessary. Vitamin could be found in different types of vegetable and fruits.

Water - For healthy body, like other elements of nutrition, water is also an important element. Through sweat, stool and urine everyday water comes out of the body. To recover the loss of water one should drink 6 to 8 glass of water every day.

Therefore, in short, we can say that during adolescence, requirement of all the elements of nutrition increases. If this need of the body is not met, body growth will be hampered and different types of malnutrition problems like, blood deficiency, night blindness, weak bone construction, short height, physical weakness could be seen. As such to meet the required nutrition boys and girls, during their adolescence should take adequate quantity of rice, bread, fish, egg, milk, vegetable, fruits, nuts etc.

Task 1 – During adolescence, which nutrition elements will a girl need for her blood formation? Explain how this need will be met.

Task 2 – List the names of the foods to be consumed to meet the nutritional requirement during adolescence.

Exercise

Multiple choice questions:

1. From 1 gram protein how much Kilocalories can we get?

- a. 4 Kilocalories
- b. 6 Kilocalories
- c. 8 Kilocalories
- d. 9 Kilocalories

2. From the yolk of the egg children can:

- i. Get body heat and energy
- ii. Protection from anaemia
- iii. Get the growth of bones

Which of the following is correct?

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

Read the paragraph below and answer to questions 3 and 4.

Karim and Rahim are two brothers. Karim is a rickshaw puller, Rahim does a salesman job. At meal time both Karim and Rahim take equal quantities of fish, rice and vegetables. Rahim is working in the shop in good health.

3. Reasons for good health of Salesman Rahim:

- a. Avoiding those foods having fat
- b. Balance between calories and need
- c. Regular exercise
- d. Balance between rest and work

4. If Karim takes the food in the same manner:

- i. His weight will begin to be reduced
- ii. Ability to work will be less
- iii. Memory will decrease

Which is correct below?

- a. i
- b. ii
- c. i & ii
- d. i, ii & iii

Creative question:

1. Shuma and Kona of class VI are friends. Their body structure is different. Their daily food list is given below:

	Shuma	Kona
Morning	Home made bread – 3 pieces Egg – 1 piece Banana – 1 piece Milk – 1 cup	Home made bread – 2 pieces Egg – half a piece Banana – 1 piece Milk – nil
Noon	Rice – 2 cups Fish/meat – 1 piece medium size Vegetable – half a cup Salad - 1 cup	Rice – one cup and a half Fish/Meat – half a piece Vegetable – half a cup Salad – half a cup
Evening	Rice – 2 cups Fish/Meat – 2 pieces Milk – 1 cup	Rice – 1 cup Fish/Meat – 1 piece Milk - nil

- a. What is balanced diet?
 - b. What do you understand by food pyramid?
 - c. From the daily food habit of Shuma, what idea could we get about her physical condition?
 - d. Explain with judgment how the food habit of Kona helps her to keep good health.
2. Jitu and Ritu are of the same age. In most occasions Jitu does not like to take food prepared at home. He buys food like bread, sandwiches, chips, chanachur etc. from the shops. On the other hand Ritu likes food prepared at home like fish, meat, vegetable and pulses. Ritu and Jitu participate in many games in the school. It is observed that very quickly Jitu gets weak and also does not have concentration in his study.
- a. What is the unit of food energy?
 - b. Explain why more energy is required during adolescence?
 - c. Explain the reason of weakness in Jitu.
 - d. From the list of foods taken by Jitu and Ritu, explain which food is good for health.

Chapter XI

Food Habit

Lesson 1 – Wrong idea about food and bad effect:

Very often we say we are Bangalis with fish and rice. It reflects the food habits of Bangalis. Food habit comes from taking food over a long period of time by several generations. Generally food habit is related to culture of a particular place. Food habit of the people living in the hilly areas is different from that in other places. Food habit also depends on and influenced by the geographical location, weather, economic and social condition of the people, transportation and communication system in that area. Food habit also changes with time. For instance, instead of home made drinks, now we are habituated in drinking soft drinks. Fast food and bakery food is replacing the homemade food. This gradually changes the food habit. From the childhood one should be careful in choosing food and should take healthy food. One should be careful and give importance to the following in determining the good food habit:

- I. To keep the body healthy, free from disease and strong
- II. Everyday food should be taken timely and fixed amount
- III. On the daily food menu meat, fish, milk, pulses, vegetable and fruit should be included
- IV. Food should be prepared and served neatly.

Task 1 – How can the correct food habit be determined?

Taposhi is from a well-off family. She does not eat properly if she does not get her favourite fish, meat in her meal. Her mother thinks expensive foods are healthy foods. As a result, most of the time, she suffers from malnutrition. On the other hand Shumon is a good student. He is going to appear in examination. His Grandmother feels that if he takes egg before examination, he will not have good result. So she does not give egg to him.

Every day we are experience all the above superstitions. These do not have any scientific values. This is due to having wrong idea about food, which ultimately leads to malnutrition. .

We can say that these have no scientific value or proof. Rather due to wrong belief, we are not taking balanced and nutritious foods. Our body is not getting adequate nutrition and we are suffering from malnutrition. In our country, we have different types of wrong ideas and superstitions about food. For example:

- a. If you eat egg before exam you will get an egg or zero
- b. If you eat banana you will catch cold
- c. Taking sugar, sweet and molasses will create worms in stomach
- d. If the expecting mother eats Mrigel fish her child will have epilepsy, taking joint banana will make her give birth to twins and taking duck egg will cause her husky voice.

In addition to above if someone has diarrhoea and fever, he cannot take normal food. He has to take expensive food for quick recovery. This view is totally wrong. If someone has diarrhoea or fever, besides medicine as prescribed by the physician he must take normal food. To keep healthy one should take meat, fish, pulse, vegetable, fruits etc. every day.

Task 2 – Write three wrong assumptions/beliefs about food in different areas.

Lesson 2 – Avoiding Unhealthy Foods, Negative Effects of Use of Artificial Colours in Foods.

Food keeps the body healthy, strong, hardworking and free from disease. However for any reason if the food is deterrent to health and life, it becomes an unhealthy food.

Food becomes unhealthy for the following reasons:

- a. Food is affected by germ
- b. Harmful elements or chemicals are mixed with food
- c. Food mixed with certain elements like dust, sand, brick or stone.
- d. Use of impure water, oil, spices and other essentials in preparation of food.
- e. Person who is preparing food is not neat and clean
- f. Food is affected during cooking, at places where it is served or through the cutleries used in serving.

Name of some of the unhealthy food:

1. Foods which are sold in the open spaces in front of School, along the roadsides, in the vans, such as, Ice-cream, Pickles, Chatpati, Futchka and Jhalmuri etc.

1. Food served in unclean environment and temporary restaurant along the roadsides, such as, Parata, Singara, Samosa, Dalpuri etc.
2. Food mixed with artificial colors and preservatives like: juice, drinks, chocolate, cake, biscuit etc.

It can be noticed that unhealthy food has some relation with different types of diseases like diarrhea, hepatitis, typhoid, skin disease, kidney problem etc. For healthy food habit one should know about the unhealthy food.

Task 1 – Explain four reasons of food becoming unhealthy.

Bad effect in using food color

For better food presentation sometimes food grade color is used. Cost of this food color is high. But some of the businessmen use artificial food colors and chemicals to make the food more attractive. These are bad for health. They use artificial color like leather dye textile dye.

Nutrition expert feels that to make the food bright a very small amount of food grade food color can be used. Like lemon squash, pineapple squash and in green mango squash by using a small food grade food color can make the squash look better. Less costly artificial food color and chemical element should not be used in food. Because these are not good for health.

In reality original food color that we could find in the food is good for our health. Artificial color cream and fruit are not good for health. It is better for good health to avoid taking food that is prepared in unhealthy condition in the restaurant, hotel, bakery and shops.

Artificial food color can cause one to have diarrhea, skin problem, long-term health problem and lead to liver/kidney problems and cancer.

Task 2 – Write the names of a few food items in which food color is used.

Lesson -3 Negative side of taking adulterated food and detrimental effect of Fast

Food Impure Food – We buy uncooked or cooked food from the market. Sometimes these food items are mixed with certain impure elements which are bad for health. For example – artificial color, preservative chemicals, part of brick, stone or sand to increase weight. In addition to above to make the food more attractive and to ripen the green food quickly chemical substances are used. Substances which are not food are taint and when mixed with food, the food becomes an adulterated or contaminated food. For personal gain and profit some people are involved in contaminating food and selling in the market. Ordinary people are purchasing these unhealthy and impure foods from the market and getting sick.

- Formalin is used to keep fish and ripe fruits fresh
- hydrose is used in sugar and milk to make them appear white
- carbide is use to ripen fruit
- urea is used to make the size of Muri more bigger and white
- In powdered spices artificial color, brick powder etc. are used
- palm oil, fat etc. are used in frying
- Dead or sick chicken is used in making chicken fry
- Instead of butter and mayonnaise low cost fat is used
- DDT is used in dry fish
- Intestine and some other parts is used for Beef or Mutton Keema

Although people are attracted with these adulterated foods but in reality these are not good for health. By taking these foods people get diarrhea, indigestion, skin disease problem in liver and kidney, even leads to the risk of cancer. By taking the contaminated food resisting power of the body declines and people become weak. It ultimately affects the mental health.

Harmfulness of fast foods:

Those foods are called fast food which the restaurants preserve in half cooked condition with their fixed menu and can serve the customer in a short time. Fast food is also known as hot food or junk food. Some of the fast foods are burger, Sharma, fried chicken, French fry, pizza, hot dog, kabaab, faluda, futchka, ice cream, soft drinks, lassi etc.

Why is fast food unhealthy?

- When the same oil is used for frying again and again it becomes toxic (poison)
- When the raw materials like flour, spices, color etc are not pure
- If the unconsumed food is served again
- If proper cleanliness is ensured where the food is prepared or if the person is not clean
- When all the items used for food preparation is not germ free
- If the drainage system in the chicken where the food is prepared is not proper

Normally with fast food ice cream, cold drinks, lassi etc are supplied. In cold drinks level of carbohydrate is high. In many cases milk, food color and essence used for ice cream is not pure.

Taking fast food regularly causes certain health problems:

- Causes weight gain
- Causes heart burn
- Leads to indigestion
- Leads to malnutrition
- Spend more money than food prepared at home
- May cause different types of water and air borne diseases

To have good habit about food one should eat homemade food from the childhood

Task 1 – Write the harmful aspects of fast foods.

Lesson 4- Alternative Food, Physical work and exercise to stay fit

We eat different types of food everyday to satisfy hunger. In many cases we had to avoid those foods which we take normally. For example while traveling we take dry food instead of rice. These are alternative foods. Also during natural calamities like cyclone, tornado or earthquake when we do not have normal activities in life, people take shelter for safety, normal cooking of food is not possible. In those situations we take alternative foods like, Chira, Muri, Moa, molasses, Biscuit, chal vhaja etc.

Some alternative foods:

Chira, Muree, molasses, Moa, Chal Vhaja, Naru, Biscuit, Chips, Dates, etc.

In any situation we cannot live without drinking water. As such bottle water and coconut water is the alternate food. During cyclone and flood water is purified through purifying tablet and by boiling water.

Task 1 – Why do we need to know about alternative foods?

Physical Exercise and work for good health:

We get energy from food. We also lose energy by doing different activities. If we do more work we losses more energy. For instance playing football, running etc. causes loss of more energy. When we do light works or activities like reading books, watching T.V or cleaning room or shelf we looses less energy. When the loss of energy is less than what we gain from food, we are overweight. Again when energy gained from food is less than what is lost through work and physical activities, we become underweight. Those who do not do physical work and activities must do exercise and involve in playing game.

Those who are involved in physical exercise, work and plays game they have gets the following:

- Have good sleep
- Adequate appetite for food
- The body cannot store extra energy and does not gain in weight
- Body muscles increases its maneuverability
- Blood circulation get increased
- Ensures physical fitness of the child
- Creates mental happiness
- Get enthusiasm to work
- Not being overweight, diseases associated with overweight is avoided

A few physical exercise and work:

- Go to school on foot
- Swimming
- Do own work
- Use the staircase
- Do gardening
- Play football, cricket, badminton etc.
- Do the household works

Task 2 – Mention three physical exercises and work for you.

Exercise

Multiple Choice Questions:

1. What is used to purify water?

- | | |
|-------------|-----------------|
| a. Alum | b. carbohydrate |
| c. hydrogen | d. urea |

2. Which is alternative food?

- | | |
|----------------------|-------------------------|
| a. Rice, mashed food | b. khichuri, egg omlet, |
| c. milk, bread | d. muri, molasses |

Read the following paragraph and answer questions 3 and 4:

Shunanda's brother is 9 months old. Presently he is not growing well. Till six months his was good. After six months Shunanda's mother wanted to feed him khichuri but her grandmother told "Her tummy will be big if she is fed with khichuri."

3. The comment Shunanda's grandmother made was-

- | | |
|-------------------------|--------------------------------------|
| a. Idea from experience | b. Existing superstition |
| c. Scientific concept | d. Not existing idea from experience |

4. The reasons of lacking in growth of the brother of Shunanda –

- i. lack of essential nutritional elements
- ii. lack of sufficient food
- iii. lack of balanced food

Which answer is correct among the following answers?

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

Creative Question

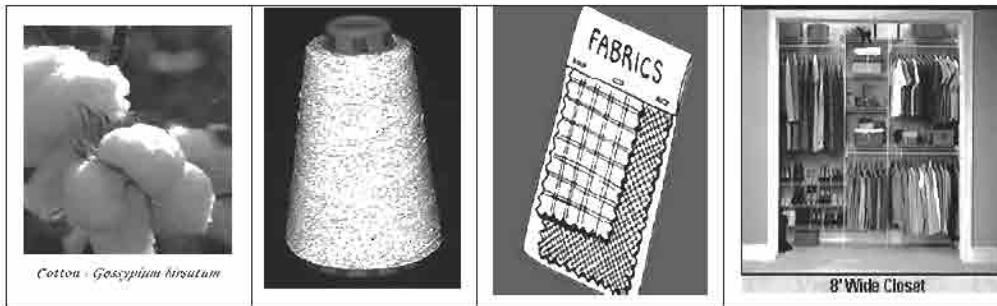
1. Dipak buys from the hawker and eats pickle, chatni, cake, sugar candy, ice-cream etc., on his way back home from school everyday. He takes rice a bit late after coming back home. Now-a-days he often suffers from diarrhoea.
 - a. The dishonest business men are using chemicals to ripe the unripe fruit.
 - b. What do you mean by impure food?
 - c. Explain the reasons for that Dipok suffer from diarrhoea.
 - d. Because of the elements of the foods which Dipok eats create health problem for long term. Analyze this.

2. Tropa is 14 years old. Every day she goes to school without having breakfast. She takes shawarma, burger, cold drink, ice-cream etc., during the tiffin hours. She eats lunch in the evening. She is suffering from heart burn.
 - a. To do what kind of work lots of energy is needed?
 - b. What do you mean by alternative food?
 - c. Explain the reasons of Tropa's physical problem.
 - d. Tropa's food habit is responsible for her physical problems, write clearly.

Section -D

Clothing and Textile

Food, clothing, housing, medical facilities and education – among these five basic needs clothing is one of them. Cloth is made from different fibres. Depending on the sources of different fibres the quality of cloth varies. Different fibres are suitable for different weather and environment. The importance of cloth is immense in our life. So it is essential to keep knowledge about clothing.



At the end of this Part of the book we will be able to:

- Explain the idea about clothing and textile
- Explain the necessity of cloth and textile
- Describe the evaluation of the history of clothing
- Explain the characteristics of different fibre
- Take care of the cloth on daily, weekly and seasonal basis
- Keep the cloths in specific place according to modern system and technology
- Know the use of different sewing equipments
- Apply different types of stitch according to the size of the cloth such as patching, running stitch, hemline and back stitch

CHAPTER XII

Basic idea about clothing and Textile

Lesson 1- Clothing and Textile

The dress we put on is made of the material known as fabric. The clothes we wear are generally of two types. These are woven fabric and knitted fabric. Woven fabric is manufactured in handloom. In this process on the handloom one set of thread is being kept horizontally and other set is being kept vertically to manufacture the fabric. Long cloth, voile, polyester, organdy, jeans, gabardine etc. are the example of woven fabric. Woven fabrics usually soft, hangs nicely, dries easily and wrinkles after wearing. On the other hand knit fabric is manufactured by machine or hand through knitting process. In this process inside the loop of a thread another loop is being made to manufacture the fabric. The cloth of T-shirt and the cloth of undergarments are the knitted fabrics. The characteristics of knit fabric are- if pulled it stretched, power of absorption will be more and it will not be wrinkled easily. Rather than these two types, there are other processes to manufacture the fabrics such as bolding, breeding, knotting, netting etc.



Clothes of woven fabrics

Clothes of knit fabrics

Task 1 – Identify the fabric of the dresses of your classmates.

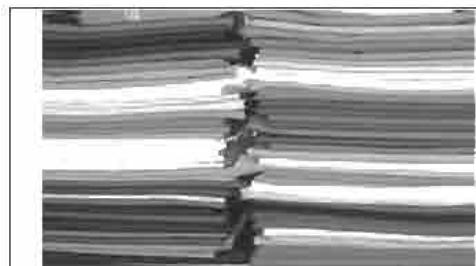
Whatever the process is being followed to manufacture the fabric there are some qualities needed to make the clothes or dresses. Can you tell what are the qualities needed to make the dress with the fabric?

These types of some qualities are mentioned below:

Following some qualities should have the fabrics:

1. Specific length and width
2. Different types according to the nature of the structure
3. Well-built and strong
4. Comfortable to wear
5. Long lasting
6. Bright and smooth
7. Capability to absorb the humidity
8. Ability to resist heat
9. Can be hung nicely

The fabric is manufactured through different processes and we cut this to make it useable, this is textile. That means what you are wearing from your hair ribbon to the shoe lace, everything is textile.



Clothing



Textile

To make different types of textile different fabrics are needed. Such as selwar-kamiz, shirts are mainly made by the handloom made fabric and the hosiery, socks etc. are made by the knitting manufactured fabric.

Task 1 – Write the suitability of the specific fabric mentioned in the following table.

Knit Fabric	
Woven fabric	

Task 2 – In groups collect different types of fabric and identify which one belongs to which type.

Lesson 2- The Necessity of Clothes or Dresses

From the story or pictures you came to know that the objective of wearing dress has been changed with the development of civilization. The essential reasons to wear the dress are following-

- Maintain decency:** In civilized society to maintain decency and to avoid embarrassment people wear dresses. People are wearing different dresses to maintain this decency according to the rules of the society, culture and religious obligations. Due to this there is difference between Islamic dress and Japanese dress or other countries' dresses.



Islamic dress

Buddhist dress

Japanese dress

- Maintain health:** There is no alternative to dress to maintain health. We wear dresses to prevent ourselves from the dust, poisonous gases and diseases or germs. Rather than these to maintain health we use handkerchief, cap, gloves, apron etc. along with regular dresses.

- Give comfort:** You know that nature changes according to the seasons. To give the body comfort according to the need of the season we wear different types of clothes such as during winter we wear warm clothes, in summer we wear loose dresses, and during rain we wear special kind of dress.



Summer dress

Clothes for rain

Silk dress

- Social identity and reputation:** To represent someone's professional identity and reputation people wear different type of dresses. Like doctors wear apron, the dresses of soldier or nurses are also different which represent their profession. By looking at the jersey it is identifiable in which groups they do belong. If we look at the dresses of the different counties of the world we can get idea about that country.



5. Self protection: In ancient era people used to cover their body to protect them from the adverse situation and animals. Later people started wearing clothes to be safe from the outside hazard. Such as the workers of the industry wear special kind of dress, helmet and boot; nurse, doctor and chemists wear apron to being safe; fire fighters wear the dress which is made of the fabric named asbestos to be safe from fire; soldiers wear bullet proof jacket; hunters wear tight trouser, full-shirt, boot and hat; divers use floating life guard jacket.



6. To show the beauty: Dress is kind of element through which people can show his/her beauty easily. But the selection should be right. Beauty enhances if the person wears the right dress in right place properly.

Task 1 – Present in groups what are the suitable dresses in a particular situation for self protection.

Task 2 – Show in a table which dresses should be worn in which season.

Lesson 3- History of Evolution of Clothes or Dresses

Can you say since when were dresses or clothes created? Actually from when the dress was created, is not known. According to the historians, from the ancient time people are covering body. In ancient era people used to cover the body with the bark of the tree, leaves, skin of the animal, feather, ornament etc. During that time people used to tie the hoof of the skin at the backside of neck to cover shoulder and chest. If the skin was bigger, they used to tie it on neck as well as on waist. But that system was not convenient.



History of Evolution of Clothes or Dresses

Gradually people invented the system of knitting. From the vain of the dead animal made thread and invented needle from the thin bone and sewed the skin to wear. That type of cloth was safe. After that people made tent with the sewed skin to be safe from cold, heat and rain. Later processed leather and manufactured comfortable, updated and long lasting clothes.

Task 1 – Make a list of the materials people used to cover body in ancient time.

From the specimen of the anthropologist it is found that in ancient time there was spinning machine. That means, at that time people used to make cloths by cutting thread. But at that time people depended on nature for clothes. Later on people manufacture cloth from the thread which is made of the fibre of plant, hair or fur of the animal, saliva of cocoon etc. and cut the clothes and start making dresses.

Task 2 – In ancient period people were used to depend on what for making clothes/textile? Make a discussion in the class.



Modernity in dress designs

With the development of civilization there are several machinery, factories are invented. As a result people are depending on nature as well as by mixing the chemical people started manufacturing artificial fabrics to make clothes or textile. As the people like good looks, demand of dresses are increasing. So the diversity has come in manufacturing the fabric as well as the design of the dresses. But it varies depending on the country, time and religion.

Task 3 – Make a poster on “The history of evolution of clothes or dresses” by using the pictures and present in groups.

Exercise

Multiple Choice Questions:

- 1. What was used in ancient time to make needle and thread?**
a. Iron and cotton b. iron and vain
c. bone and vain d. branches and leaves

- 2. What kind of fabric can absorb the water most-?**
a. Woven fabric b. knit fabric
c. netting fabric d. felting fabric

Read the following paragraph and answer the questions 3 and 4:

Molly and Jolly have gone to the death anniversary of their friend on a mid-day of summer. Molly has worn a light brown sharee and Jolly has worn bright orange silk sharee.

3. Molly was conscious to select the dress-

- i. According to the timing
- ii. Regarding beauty
- iii. Nature of the program

Which answer is correct among the following answers?

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

4. The dress which Jolly selected-

- | | |
|---------------------------------|---------------------------------|
| a. was suitable for the program | b. comparatively warmer |
| c. representing the right taste | d. representing the right color |

Creative questions

1. One day Shova ironed soft, comfortable and loose cloth for going to her friend's house. After reaching there when they were gossiping, her friend Reba asked that didn't she iron the dress, it is wrinkled. Shova answered that she ironed the dress though its condition is like this. Reba told that her dress doesn't get wrinkled and absorption power is more.

- a. How many basic needs do people have?
- b. To protect them what do the nurses wear? Explain.
- c. Explain what kind of fabric Shova is wearing in the given example.
- d. Discuss comparatively the characteristics of the clothes of Shova and Reba.

2. 7 years old Rahat is watching T.V. at home. Rahat told to his father that it is Brazil's game as he watched that the players were wearing blue and yellow dress and the picture of football was there. Rahat's father asked him how he understood. He said that the jersey made him understand. Rahat's father asked that how will he identify Bangladeshi players. Rahat answered that the green and red jersey will make it clear. Then Rahat's father told that is it identifiable the culture and civilization through that country's dress?

- a. What is knitted fabric?
- b. What is self protection?
- c. How did Rahat identify the players' by the characteristics of the dress?
- d. Explain according to the example that the dress of the players represents that country's heritage.

CHAPTER XIII

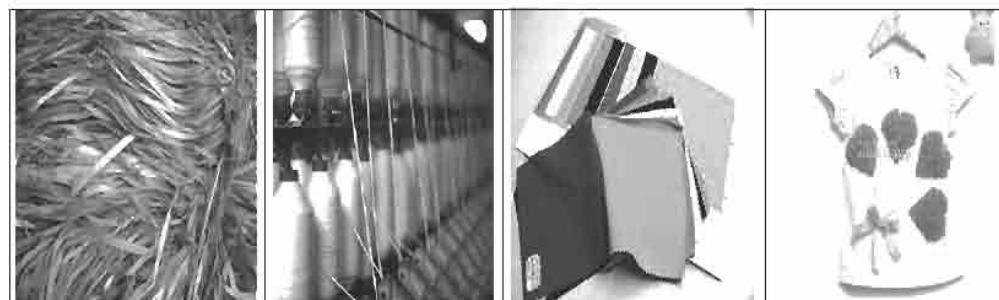
The Concept of Textile Fibre

Lesson 1-Fibres Suitable for Making Threads or Qualities of Fibres

We know that the dresses we wear are made of fabric. For the time being it may seem that the fabric is made of thread. It is right but the thread is made of some fibres. Sometimes with these small fibres, through different processes fabric can be manufactured. There are some known fibres which are used to make fabric are – cotton fibre, jute fibre, silk fibre, rayon fibre, nylon, etc.



So you can tell that dress, fabric or the thread which is made of the fibres is known as textile fibre.



Fibre or textile fibre → Thread → Fabric → Textile or Dress

Task 1 – What are the fibres are used to make the thread or fabric, discuss in class.

Task 2 – Make a chart of the different consecutive phases of textile fibre to make fabric.

Qualities of textile fibre-

1. The length of the textile fibre will be more than width. As much as the fibre is thin the fabric will be smooth and soft.
2. The textile fibre should be very strong. If it is not enough strong than thread or fabric can't be made from it.
3. As the thread or fabric needs to wrap, the fibre is used to make the fabric should be soft. Because of this characteristic the textile fibre can be wrapped or twisted to make thread.
4. The small fibres may have the tendency to stay roll up.
5. After folding or twisting the fibre should have the ability to come back to the previous condition.
6. The textile fibre should have its own brightness.
7. Capable of absorbing moisture.
8. The textile fibre should be stretchable that means when it will be extended it will be long and come back into the previous condition when let it go back.

Task 1 – Describe bellows that why we can't tell any kind of fibre as textile fibre.

Lesson 2- Categorization of fibres

In the previous lesson you came to know that the fabric is made of fibres. There are many fibres available in nature. With the development of science, many fibres are invented. The characteristics of different fibres vary, for that it is essential to classify the fibre. Due to that we will get idea how to take care, ensure quality and use according to their belongingness of the same category.

According to the source of fibre it can be divided into two types. These are natural fibre and artificial fibre.

1. Natural Fibre: Which textile fibres you will see in the nature is natural fibre. There are categorized among these-

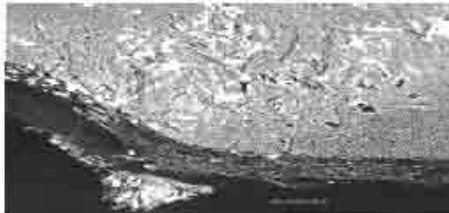
a. **Plant fibre:** Plant fibre is available from plant's seed, bark, stem, leaf etc. Cotton fibre is the outer side's fibre of the seed of the carpas tree, jute fibre is from the bark of the jute plant, flax fibre is from the stem of the flax plant, pina fibre is from pineapple leaf.

			
Cotton seed	Flax plant	Jute plant	Pineapple leaves

b. **Animal fibre-** From the hair, fur or saliva of the animal we get animal fibre. Such as from the hair of the sheep we get wool or fur fibre and from the saliva of the cocoon we get silk fibre.

	
Fur fibre from the sheep's fur	Silk fibre from the saliva of cocoon

c. **Mineral fibre-** This fibre is available under the soil in the steps of the hard rock. After refining the mineral fibre the thread is made. From the fibre of the asbestos, the asbestos thread is made.



Asbestos Fibre



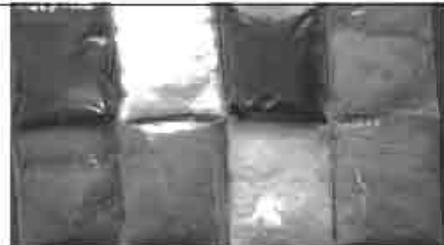
Asbestos Thread

d. **Rubber fibre:** From the natural rubber through different processes different types of fibres and threads are made.

2. Artificial Fibre- You need to know that there are several fibres which didn't grow in nature, people make many fibres by mixing chemicals with the natural fibres or just with the chemicals many fibres are made which are artificial fibres. Such as nylon, rayon etc.



Nylon Fibre



Rayon Fibre

Task 1- In the following table's left side column, the names of different fibres are given. Fill up the table according to the appropriate example of the specific category.

Categories of Fibre	Example
Plant Fibre	
Animal Fibre	
Mineral Fibre	
Artificial Fibre	

Task-2 Categorize the fibres through a chart and present in class.

Lesson 3- Material and functional characteristic of fibre

As cloth is very essential in our life, so we need to know which cloth is made of which fibre and characteristic/specialty of that fibre. You may have noticed that every cloth has its own characteristics, because the source of different fibres is different and their material and functional characteristics are different too. You may think that what are the material and functional characteristics? The material characteristics are the fibre's size, strength, stretch ability, capability of absorbing moisture etc. On the other side functional characteristic is the fibre's convenient side which means the usefulness of that fibre in practical life.

The material and functional characteristics of cotton fibre- The cotton fibre is being collected from the seed of cotton plants. The length of this can be 1.27-6.35 c.m. Their brightness is less, not stretchable, enough strong, become more strong in wet condition. Through this fibre temperature can pass and can absorb the moisture well. The cotton fabric is made from cotton fibre. This cotton fabric is being used to make casual dress as well as formal dress, jersey, curtain, table cloth etc.



The use of cotton fabric for curtain and pillow cover

The material and functional characteristic of flax fibre- Flax fibre can be 548.64-609.6 c.m. long. From the stem of the flax plant flax fibre is produced. When the bark is removed from the flax plant this fibre is visible from the top to the roots of this plant. Linen fabric is made from this fibre which is bright, strong and become more strong when get wet. This fabric is suitable to wear during summer because through this fibre temperature can pass easily. Rather than the cloth for wearing this fibre also can be used to produce the cloth to wipe the table, towel etc.

The material and functional characteristic of silk fibre- Among the natural fibres, silk fibre is the longest and brightest. It is made from the saliva of cocoon. 396.24-1219.20 meter long silk is a very soft and strong fibre. Because of its own brightness it is used to make the luxurious silk clothing.



Towel made of flax fibre



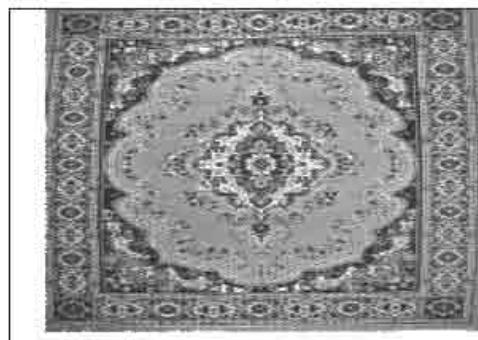
Bright silk fabric



Fur clothes

The material and functional characteristic of fur fibre – Fur is an animal fibre. From the different hairy animals, fur or hair of their body is used to make warm clothes. Among the animals the fur of sheep is mostly used in fur clothes. Fur fibre can be 35.56 c.m. long. It has very good water absorption power though when it gets wet its shape changes and strength becomes less. As the temperature can't pass through easily, it is being used to make warm clothes such as muffler, sweater, shawl etc. are made of the fur fibre.

The material and functional characteristic of artificial fibre- As the artificial fibre is man made its length is manageable. Its brightness can be enhanced or reduced. Rayon, nylon, polyester etc. are the examples of this fibre. Scientists invented that by mixing chemical elements with the cotton fibre, rayon fabric can be made. The main sources of nylon fibre are coal, air, water etc. As the clothes made by artificial fibre are light, strong, flexible and long lasting these are used as the fabric of curtain, carpet, mosquito net, bed sheet etc.



Carpet from the artificial fibre



Mosquito net from the artificial fibre

Task-1 Match the following different clothes mentioned in left side column with their exact source which are given in the right side column in jumbled way with arrow mark.

Cotton cloth	Coal, air, water
Fur cloth	Cotton fibre
Linen cloth	Saliva of the cocoon
Silk cloth	Fur of sheep
Nylon cloth	Fibre of the cotton and chemical things
Rayon cloth	Flax fibre

Exercise

Multiple choice questions:

1. How many types of textile fibres are there according to their sources?

- a. Two types
- b. Three types
- c. Four types
- d. Five types

2. Which of the following is the fibre used in making socks?

- a. polyester
- b. nylon
- c. cotton
- d. flax

Read the following paragraph and answer questions 3 and 4:

One textile engineer was interested to use artificial fibre instead of animal fibre to make winter clothes. He used the fibre which was got from the saliva of cocoon to made luxurious dresses.

3. The textile engineer selected the animal fibre because of

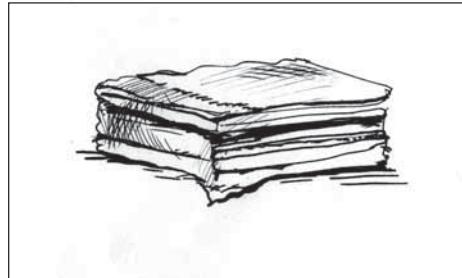
- a. Its shape become unchanged though it is wet
- b. Through the fibre it is hard to pass the temperature
- c. The fibre is made of chemical elements
- d. As this fibre is the longest among all the fibres

4. The cause of selecting that fibre to make luxurious clothes-

- i. because of the fine thread the fibre is soft
- ii. suitable in all the seasons
- iii. it has its own brightness

Which answer is correct among the following answers?

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

Creative questions**1.**

Picture -a (cotton)



Picture-b (Flax fibre)

- a. How many types of textile fibres are there according to their sources?
- b. What do you mean by artificial fibre?
- c. Explain why people mostly use the fibre shown at picture –‘a’.
- d. Write the similarities you observe in the fibres at pictures ‘a’ and ‘b’.

Chapter XIV

Care and Storage of Clothing

Lesson 1- Care of Clothing

In civilized world, everyone needs to wear clothing or dresses. But everyone cannot take care of the clothing properly. Do you take care of your clothes? What do you think about taking care of clothing?

When wore the cloth will be dirty it is natural. But washing the dirty cloth properly, folding accurately, keeping in right place is taking care of the cloth. It is not always necessary to wash the cloth after use. In that case after using it should not be kept without any reason, it should be folded properly and should be kept in right place. If the dress tears after use or get spot then removing these problems is included in the care of the clothes.

To maintain the beauty of the cloth and its longevity depend on you. If you do not take care of your cloth then an expensive dress can be unusable and create unhygienic condition. So taking care of the cloth can be divided into three types-

1. Daily care of the cloth- Everyday the care dress needs is known as daily care of the cloth. Which dress you use everyday wash it with soap during taking shower and the dress you use to go out if it doesn't require washing, dry it under the sunlight and keep in right place. Otherwise it will not be handy while needed.



Washing clothes daily



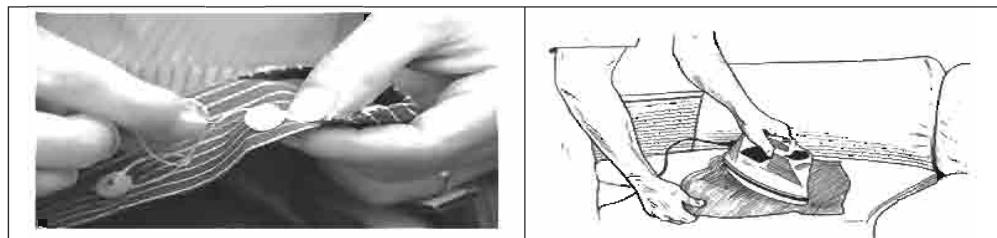
Drying of clothes



Keeping in right place

Task-1 Write the steps of the daily care of your clothes.

2. Weekly care of clothes: During weekend if needed sew the button, if it tears then repair it and wash your own cloth then iron it. Clean the shoes, bag etc. on the same day. It is better if you can arrange some entertainment while taking care of the clothes during weekend. You can listen music at that time to avoid monotonousness. If the weekly care of the cloth is ensured than you will not have any tension for the following week.



Weekly care of the clothes

Task-2 Make a list of work you have to do to take weekly care of your clothes.

3. Seasonal care- Our country is the country of six seasons though taking care of the clothes is needed in three seasons which is seasonal care of the clothes. You can take seasonal care of your own clothes. In this case at the end of summer wash and iron the thin cotton clothes and keep in the specific place. After rainy season just wash and fold then keep the clothes in the right place which are made of artificial fibre, these don't need iron. At the end of winter it is essential to wash or dry the sweater, socks, muffler, jacket, cap etc. under the sunlight and remove the dirt if washing is not needed and keep in proper place. So that next year there is no need to buy new clothes and get the things handy when needed.



Seasonal care of the clothes- winter clothes and folded blanket

Task-3 One of your friends often comes to class by wearing dirty clothes. Sometimes it is noticed that the button or the zipper is tear. What advice will you give him/her?

Lesson 2- Keeping clothes properly

In the previous lesson you came to know the necessity of taking care of clothes and its ways. To take care of the cloth another thing is included that is keeping the clothes properly. The unused clothes will be damaged by the pests or insects, dust and moisture, if these are kept open. As the dress is an expensive thing it needs to keep properly otherwise it will not last long and money will be wasted. So to keep the clothes nice and neat you have to keep in mind the following things-

1. After washing and drying clothes should be kept properly. While washing it is needed to keep in mind about the fibre of the cloth. Depending on fibre the system of washing clothes will be different. Like-

a. Cotton and linen clothes can be washed together. To clean up soap, soda, chlorine, detergent etc. can be used. For the fine cotton, linen clothes use light detergent. To make the white cloth more white, Robin Blue can be used. Starch can be used too if needed. There is no problem with warm water with these clothes. Better if dried under the sunlight. But the coloured clothes should be dried in shaded place.

b. Silk cloth should be washed in lukewarm water with light soap or shampoo. This kind of fabric should not be pressed hard, needs to wash lightly and dry in shaded place. Washing can be done for the fur clothes as silk clothes. It is better to keep flat rather than hanged for drying. Otherwise the shape will be changed. It should not be twisted hardly for spinning the silk and fur clothes.

2. For keeping long time of the cotton clothes starch should not be used to prevent the pests.

3. Silk clothes should be hanged after washing and ironing. You have to be conscious about certain things while ironing the clothes. Such as-

a. Cotton and linen clothes should be ironed when it is little wet. If it is fully dried, spread little water to make the fibre soft then iron it.

b. Silk and fur clothes should be covered with a thin wet cloth and be pressed lightly for ironing.

c. Whenever ironing any cloth you have to be conscious about the system of folding. The beauty of the cloth will be hampered if the fold of the sleeve or the final fold is not correct.

d. After ironing it is needed to hang the cloth in open air for a while. Otherwise there is a chance to get spot.



Folded cloth after ironing

Task 1- Each of you iron your one set of cloth which is folded properly and present in class.

4. If the fur cloth doesn't need washing then dry under sunlight and keep as folded.
5. The place of keeping the clothes should be well ventilated. If the clothes are kept in dark and wet place then pests or insects and fungus can be caught.
6. Before keeping, clean the keeping place and spray anti insecticides.
7. For keeping long time in the folds of clothes naphthalene, black seeds, dry neem leaf etc. should be given.
8. Before and after rainy season it is good to dry the kept clothes under sunlight so the clothes will stay in good condition.

Task-2 Write four advantages of keeping the clothes properly.

Task-3 According to the seasons what kind of fibre's cloth will be kept in which way, present through a group-chart.

Exercise

Multiple choice questions:

1. In how many groups can clothes-care be divided?

- | | |
|----------|---------|
| a. one | b. two |
| c. three | d. four |

2. What kind of fibre's clothes can together be washed?

- | | |
|---------------------|-------------------|
| a. cotton and linen | b. linen and silk |
| c. cotton and fur | d. silk and fur |

Read the following paragraph and answer questions 3 and 4:

Zeba has ironed her cotton sarees when these are in little wet condition, without using starch for keeping in the cupboard.

3. Why has Zeba ironed the sarees in little wet condition?

- a. to save electricity
- b. to keep the shape of the cloth proper
- c. to keep the fibre soft
- d. to get rid of the heat of the cloth

4. Jeba has not used starch because of-

- i. for keeping long time
- ii. for saving from the attack of the pests or insects
- iii. for saving time

Which answer is correct among the following answers?

- | | |
|--------------|-------------------|
| a. i and ii | b. ii and iii |
| c. I and iii | d. i, ii, and iii |

Creative questions

1. At the end of the winter Labonno has kept her sweater, jacket, muffler, socks in the cupboard. One day when she has taken out her silk cloth from the cupboard has noticed that her silk dress is tear by the insects.

- a. Where should be the colored clothes dried?
- b. What do you understand about the care of the clothes?
- c. What kind of cares Labonno has taken for her winter clothes? Explain.
- d. Labonno's dress has been spoiled because of the problem in keeping. Explain.

CHAPTER XV

Sewing Equipment and Various Stitches

Lesson 1- Introduction to Various Sewing Machines

Lima studies in class six, her elder sister studies in college. She makes her own clothes beside her studies. Their parents are very happy with her sister's efficiency. Friends also praise her dresses. Lima also wants to work like her sister. But mother told that first she needs to know about the equipments of sewing. To make the clothes it is essential to use different small and big equipments. Without these equipments sewing is not possible. If the sewing equipments are handy then it is easy to sew, save time and irritation doesn't occur.

Machine is the most important among the equipments of sewing. For the benefit of human being the equipments invented till the date, sewing machine is one of them. Compare to other sewing equipments this machine is big and more expensive. There are three types of sewing machines available in the market such as hand machine, foot machine and electric machine. By these machines various dresses and home decorative materials can be sewed.

1. Hand machine- To use the hand machine electricity is not required. Sewing is done by holding the cloth with left hand and with the right hand handle is being held to move it. Compare to other machines it is inexpensive and is easiest to take care. As the production facilities are less in hand machine it is more convenient for using at home and for the new learners.



Hand machine



Foot machine

2. Foot machine- This machine also doesn't need electricity. With the pressure of foot or leg by moving the paddle this machine is used. Compare to hand machine this is expensive and big in size though it is commonly used because it can be controlled by both the hands while sewing.

It is also easy to take care of the foot machine.

Task-1 Mention the advantages and disadvantages of different machines.

3. Electric machine: By this machine with the electricity many clothes can be sewed with little labor. If the adequate knowledge of operation of this machine is ensured than different types of sewing can be done by this machine though it is more expensive than other machines.

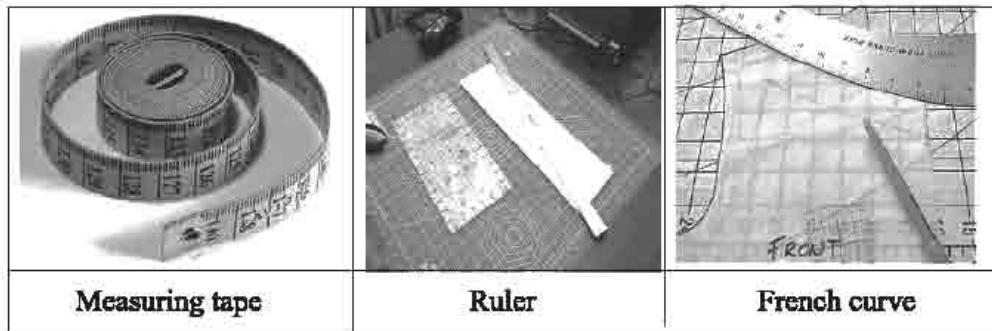


Electric machine

Rather than the sewing machines there are many other relevant sewing equipments needed to sew. According to the use these are divided into several types.

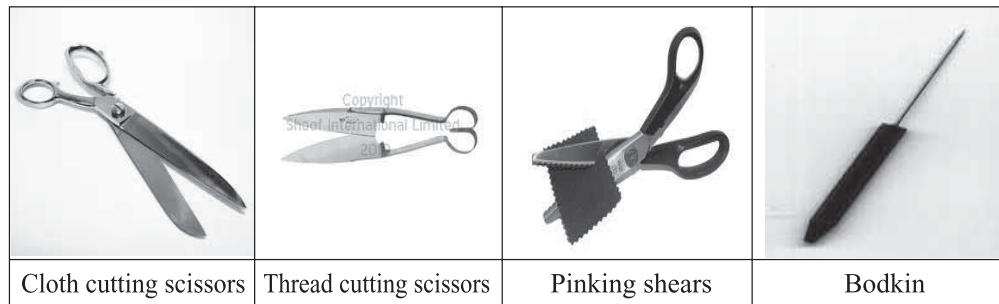
Lesson 2- Equipment of measurement, cutting and line-drawing

a. Materials of measurement: For any nice fitting cloth or dress the prerequisite is to take accurate measurement of the wearer of that dress. According to this measurement the design of the dress is drawn. To take the measurement of body and drawing the design there are some equipments such as measuring tape, ruler, shape- wood or stencil, French curve, yard stick etc.


Task-2 In a table show the equipments which are used for measuring for sewing.

b. Cutting equipments

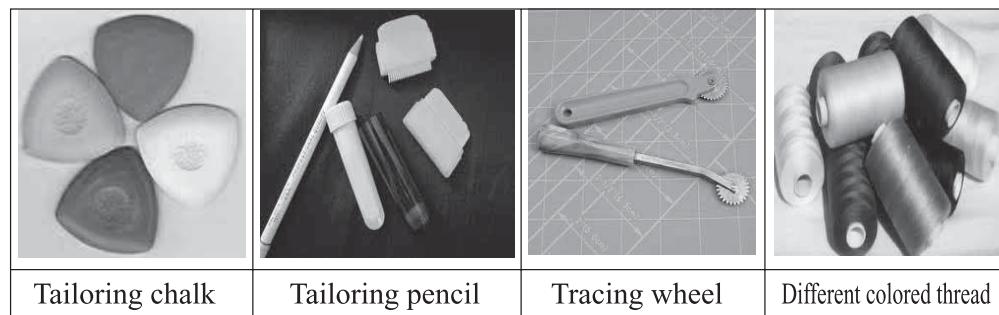
Without appropriate equipments no cloth can be cut nicely. If the cut is not okay then the design of the cloth doesn't become nice. To cut the cloth medium sized 17.78-20.32 c.m. sharp scissors, for cutting the thread 10.16-15.24 c.m. scissors and after making the cloth for sewing the sides pinking shears are used. Rather than these for unstitching bodkin and for cutting the button hole a special kind of machine are used.



Task-2 The equipments are used for the specific purposes of sewing, present in a table in front of teacher.

c. Equipments of drawing line

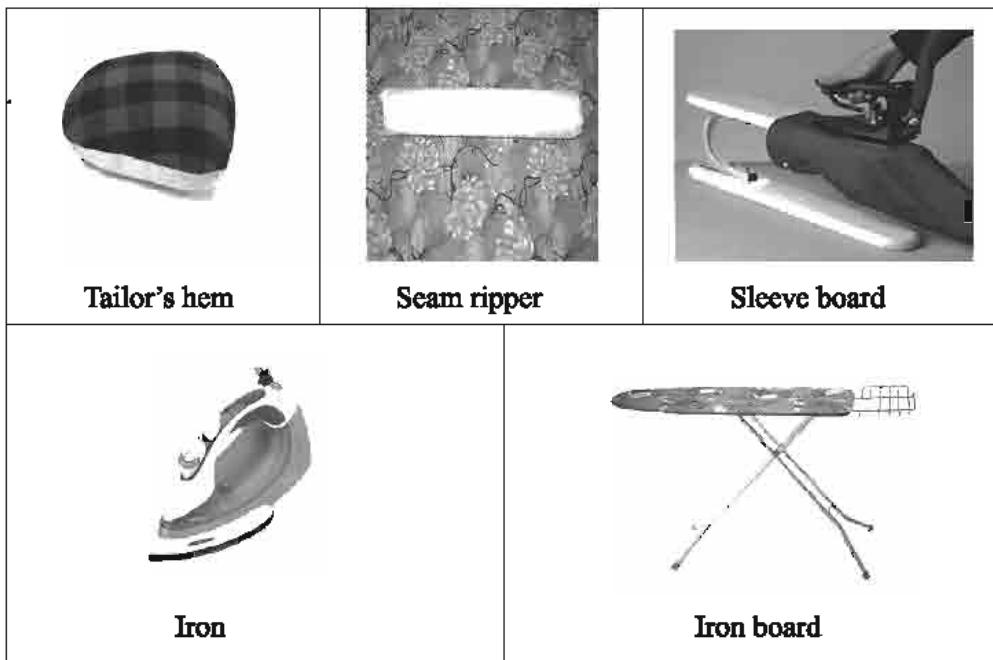
There are some essential equipments for drawing the design of the dress and for measuring to draw the mark on the cloth. Such as pencil, tailoring chalk, tracing wheel, carbon paper, different colored thread, eraser for erasing the line etc.



Task -3 Make a list with friends the equipments needed for drawing line or design.

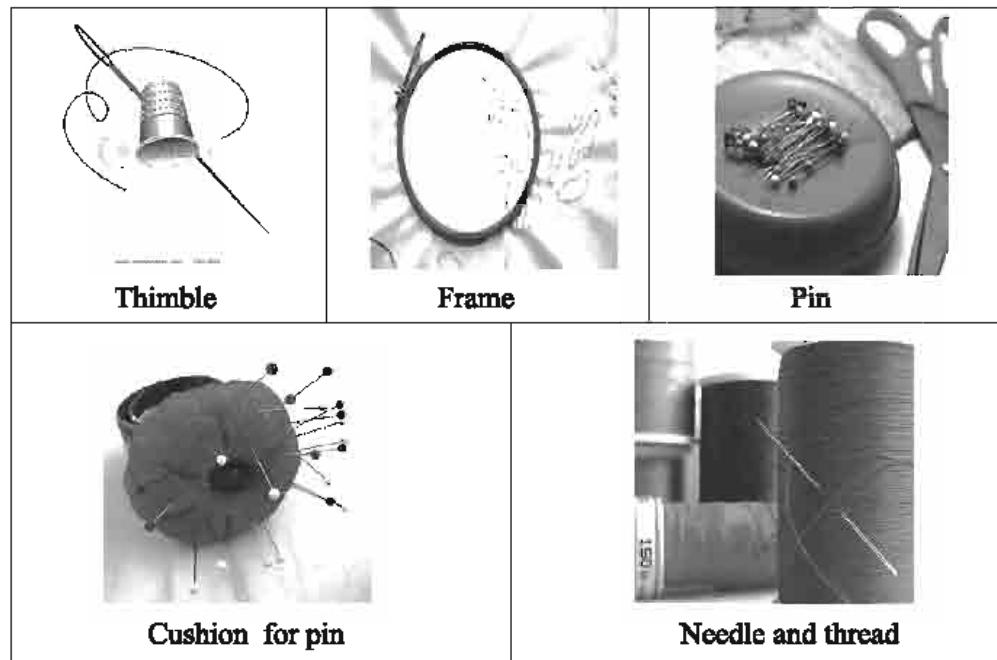
Lesson 3- Equipment for Pressing and Hand-sewing

a. Materials of pressing- Before cutting the dress and after sewing to bring the accurate shape it is needed to iron or press the cloth. If different parts of dress like collar, cuff, pocket, button patch, pleat etc. are ironed than the shape will be smart. After that these should be attached with the other parts of the dress. For pressing the essential equipments are proper weighted iron, exact heigted iron board or table, tailor's hem, sleeve board, seam ripper, point pressure, sponge etc.



b. Equipments of hand sewing

While making a dress most of the parts are sew by the machine though some parts need to sew by hand for bringing smart look. For sewing by hand there are some essential equipments like different sized needles, thimble, instrument for inserting the thread, different colored thread, pin and cushion, frame, small scissors etc.



If the sewing equipments are kept in box with care these will be available when needed and with these hand sewing will be nice.

Task-1 Present the equipments of pressing and hand sewing in class.

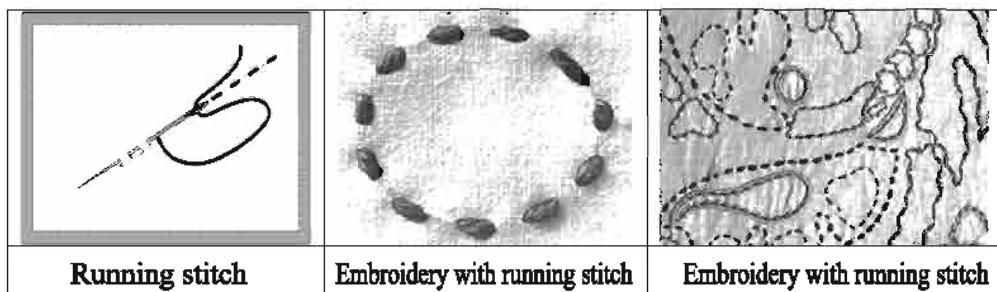
Lesson 4- Introduction to Various Stitches (Running Stitch and Back Stitch)

In previous lesson you came to know the equipments needed for sewing. In this lesson you will come to know the technique of making a cloth very nicely just with the needle and thread. You will be skilled in sewing through this lesson. You have to be conscious about some matters while doing this work. Such as-

- a. Have to select the cloth on which the design will be prominent.
- b. Correct colored thread should be used in correct place.
- c. While doing embroidery need to use thin needle.
- d. While pulling the thread need to be careful for avoiding shrinking the cloth.
- e. According to the design appropriate stitches should be given.
- f. By practicing need to use fine stitches.

By hand with the needle and thread different stitches can be made on cloth, which is discussed bellow-

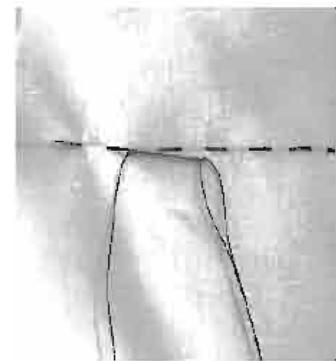
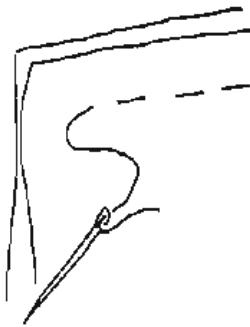
Running stitch- With the threaded needle the small stitches go up and down of the cloth is known as running stitch. The stitches should be almost same in size. This is the easiest stitch. With this stitch rather than usual dress nokshi katha, cushion cover, sofa back etc. embroidery can be done.



Task-1 Insert the thread in the needle then knot its edge and do embroidery with the running stitch.

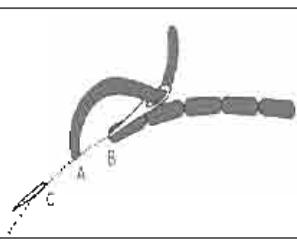
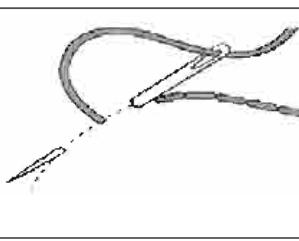
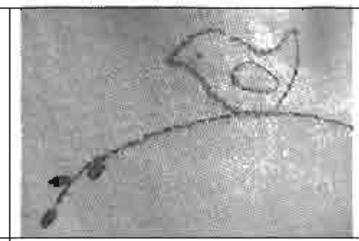
Patching

When two or more clothes are stitched together for joining temporarily, with bigger stitch than running stitch is known as patching. After sewing in machine finally it needs to be removed.

**Patching**

Task 2- Insert the thread in the needle then knot its edge and practice patching.

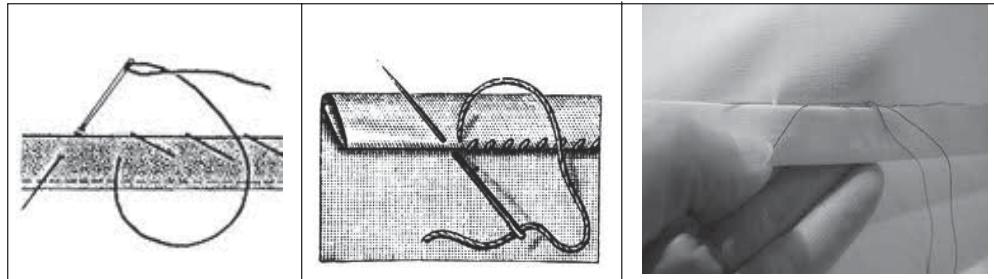
Back stitch (Bokhea)- While doing back stitch first the needle to be inserted in the cloth and then the needle should bring little back and stitch should be given. In the second stitch the front side of the needle will come little forward than the first stitch. In this case all the stitches stay side by side. This stitch is very strong and from the front side it looks like sew by the machine. The other side looks like stem stitch. This stitch is used to make the edge of the embroidery, branch of the tree, leaf etc.

**Back stitch****Back stitch****Embroidery with back stitch**

Task- 3 With the back stitches complete embroidery on cloth.

Lesson-5 Hemline, chain, lazy daisy and stem stitch

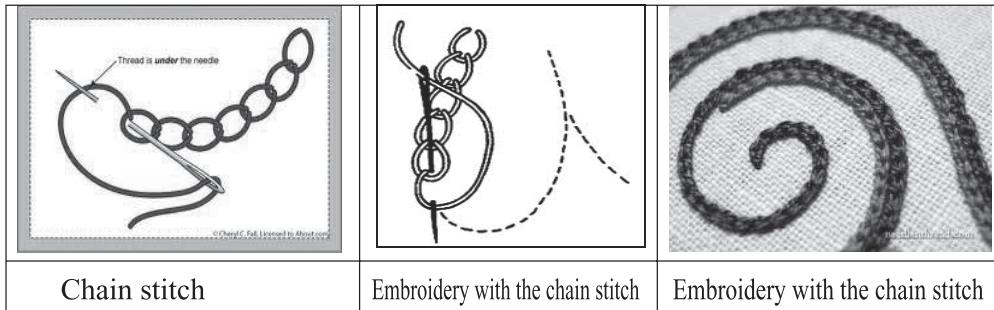
Hemline: This stitch is used on the neck, bottom part of the dress or blouse, tray cloth, table cloth and at the edge of handkerchief by folding the cloth. To do this stitch insert the needle in slanting position as shown in the following pictures.



Different types of hemline

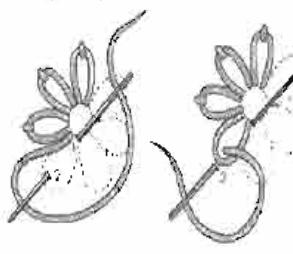
Task 1- Use the hemline by folding the edge of a tray cloth.

Chain stitch: As it looks like chin, it is known as chain stitch. To sew this stitch first the needle and thread comes from the back of the cloth then from the left side the stitch is given and with the thread a loop or slip-knot should be made on the top of the thread. Then the thread should be pulled out. The next stitch comes from the first one. This stitch is used to make the edge of the embroidery, branch of the tree, leaf etc.



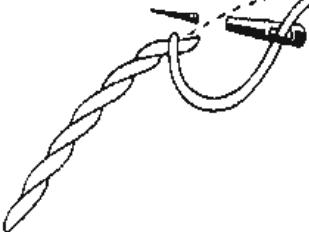
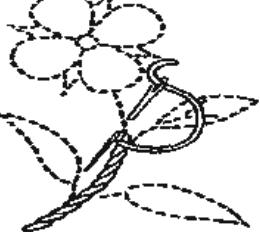
Task- 2 Enhance the beauty of the embroidery's edge with chain stitch.

Lazy daisy stitch:

<p>When from a big chain stitch at the upper part of that stitch, if another small stitch is given to attach with the cloth makes lazy daisy stitch. This stitch is used for different designs' small petals of the flower and leaf.</p>	 <p>Lazy daisy</p>	
	<p>Lazy daisy stitch</p>	<p>Lazy daisy stitch with the ribbon</p>

Task-3 Make a design of a flower with lazy daisy stitch.

Stem stitch: To make this stitch the needle comes from the back side to the front side. In the first stitch from where the top of the needle come out, from there give a slanting stitch for the second stitch by giving two three threads gap. Next stitches will go forward like this. To make the design of branch or stem this stitch is used and as it looks like stem it is known as stem stitch.

		
<p>Stem stitch</p>	<p>Embroidery with the stem stitch</p>	<p>Embroidery with the stem stitch</p>

Task 4- Draw stem or branch and leaves on a cloth and apply stem stitch.

Exercise

Multiple Choice Questions:

1. Which equipment is being used to take measurement of the body?

- a. tracing wheel
- b. seam ripper
- c. measuring tape
- d. tailoring chalk

2. To sew the bottom part of the frock which stitches is being used?

- a. Running stitch
- b. hemline
- c. back stitch
- d. patching

Read the following paragraph and answer questions 3 and 4:

Julia makes clothes for her children. While making dress before final sewing she uses another stitch.

3. Which stitch Julia uses?

- a. Running stitch
- b. Patching
- c. Hemline
- d. Chain stitch

4. Julia uses different stitches while sewing because-

- i. To determine the measurement of the cloth
- ii. To make the dress attractive
- iii. To save money

Which answer is correct among the following answers?

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

Creative question:

1. Ruma runs her family by sewing clothes. She uses one hand machine, scissors and measuring tape to do this work. From the boutique shop they rejected her clothes due to the problems in finishing of the dresses' collar, cuff, pocket, pleat, button, patching etc. Also Ruma becomes worried as she can't give delivery of the clothes to her neighbors on time.
 - a. What is the function of pinking shears?
 - b. What do the equipments for drawing lines on the cloth mean?
 - c. Is the machine the right selection for sewing which Ruma is using? Explain.
 - d. Due to the lacking of the appropriate equipments Ruma can't earn enough money. Write clearly.
2. Just before few days Nirupoma has learned about embroidery. So she has decided to do embroidery on a handkerchief. She has drawn one flower's design along with branches and used running stitch and hemline to do the embroidery. After finishing the embroidery it is seen that the design has been shrink. There is a tear in the handkerchief too.
 - a. What is the function of bodkin?
 - b. What is the meaning of taking measurement of the wearer?
 - c. Has Nirupoma used the right stitch while embroidering in the handkerchief? Explain.
 - d. What are the necessary matters which were not followed while Nirupoma was embroidering in the handkerchief and due to that it was not nice?

The End

2013
Academic Year
6-Home Science

মাঝের পদ্ধতিতে সংসারের বেঁধেন্ট

সারিপ্রামুক্ত বাংলাদেশ গভর্নেন্স শিক্ষা প্রহরি কর্তৃতে হবে

— সামুদ্রিক প্রযোজন পেছ করিস



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