

# Home Science

## Class Eight



NATIONAL CURRICULUM & TEXTBOOK BOARD, DHAKA

**Prescribed by the National Curriculum and Textbook Board as  
Textbook for Class Eight from the Academic Year-2013**

---

# **Home Science**

## **Class Eight**

**Written by**

Prof. Ismat Rumina

Soniya Begum

Gazi Hosne Ara

Shamsun Naher Bithi

Syeda Saliha Saliheen Sultana

Rehana Yasmin

**Edited by**

Prof. Laila Arjumand Banu

Prof. Syeda Nasrin Banu

**Translated by**

Professor Doria Noor Begum

Md. Monirul Islam

---

**National Curriculum and Textbook Board, Dhaka.**

Published by  
**National Curriculum and Textbook Board**  
69-70, Motijheel commercial Area, Dhaka.

**[All right reserved by the Publisher]**

**Trial Edition**

**First Edition:** 2012

**Co-ordinator**

Kaniz Fouzia Khanom

**Computer Compose**

Perform color graphics (Pvt.) Ltd.

**Cover**

Shudarshan Bacchar

Sujaul Abedeen

**Illustration**

Md. Hasanul Kobir Shohag

**Design**

National Curriculum and Textbook Board

**For free distribution form academic year 2010 by the Government of Bangladesh**

---

**Printed by:**

## 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 to fight against unexpected incidents in house-hold and outside by solving various problems in house hold environment. The book is appropriately developed considering the facts to meet the challenge of time.

Considering the challenges and commitments of 21<sup>st</sup> 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.

## Table of Contents

Chapter	Section and Chapters	Page
	<b>Section-A :</b> Home management and its resources (1-26)	
<b>One</b>	Proper use of Household resources	2-11
<b>Two</b>	Home Security	12-19
<b>Three</b>	Home nursing for the sick	20-26
	<b>B</b>	
	<b>Section</b> Child Development and personal security	(27-64)
<b>Four</b>	Adolescence	28-35
<b>Five</b>	Alertness about disease	36-46
<b>Six</b>	The children with Special needs	47-54
<b>Seven</b>	Self defence in different unfavourable situations	55-64
	<b>C</b>	
	<b>Section</b> Food and nutrition Management	(65-106)
<b>Eight</b>	Food planning	66-78
<b>Nine</b>	Malnutrition	79-86
<b>Ten</b>	Carefulness in selection purchase and preparation of food for the family.	87-98
<b>Eleven</b>	Cooking food	99-106
	<b>D</b>	
	<b>Section</b> Cloth and Dress	(107-112)
<b>Twelve</b>	Making of yarn and weaving	108-112
<b>Thirteen</b>	The considerable factors in selecting dress	113-117
<b>Fourteen</b>	Considerable factors in buying dress	118-120
<b>Fifteen</b>	Making dress	121-127

## Section-A

# Home management and its resources

Proper use of all resources needs to be ensured for attaining family goals. This can be achieved by identifying the joint resources. In order to protect ourselves from accidents of daily life we all should have the primary knowledge of treatment. Besides knowledge about nursing the sick with room utensils is also needed for the physical and mental peace of the sick.



**At the end of the section we will be able to-**

- explain properly the use of household resources.
- classify household resources.
- explain the necessity of proper use of joint resources.
- explain the need for home security.
- describe the causes of home based accidents and the aim of primary treatment.
- explain the need of keeping the sick room neat and clean with its used utensils.
- describe the method of measuring temperature, pulse rate with the rate of respiration.

## Chapter-One

# Proper use of household resources

### Lesson 1 –Household resources

Resource is the main instrument to satisfy our needs. The definition of home management clearly explains that the right use of resources is the key to reach our goal. Resource means money, property, building, Jewelleries and others. Besides these we have also energy, skill, knowledge, intelligence and attitude. But most of the people do not have any idea about their qualities. Needless to say that these resources enrich them more. These two types are known as household resources.

Resources are indispensable in home management. In order to reach a definite goal the resources are used for proper planning, organizing, controlling and evaluation.

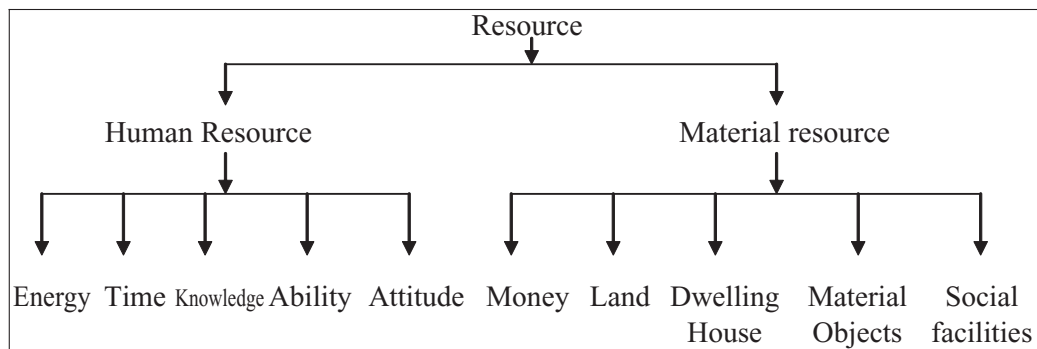
#### Basic Principles of resources

- **Utility of resources:** Utility satisfies our need. Every resource has some utility but it differs in case of different resources. We use table and chair with other objects for our studies and for this it is a resource.
- **Limitation of resources:** All resources are limited. A person has 24 hours work time which shows its limitation and so is the case with income and space.
- **Use of resources is interrelated and interdependent:** In most of the cases resources are applied jointly to reach a goal. There comes the necessity of using money,time, energy, skill together for a work which help in reaching the goal.
- **All resources have accessibility:** Resources need to be kept under control of the owner. Inaccessibility of resource cannot be considered as resource.

Some resources are transferable-these are building, money, property and furniture with accessories. But intelligence, energy, ability and time cannot be transferred. These are all inherent qualities of human being. Despite some limitations knowledge, time, skill and energy can be expanded by exercise. The income of the family can also be increased through different income generating process.

## Classification of household resources

Every person has some resources. As no goal can be achieved without resources, everybody is eager to increase some of their resources. But due to lack of knowledge the unknown resources cannot be utilized to achieve the coveted goal. Classification of resources helps us to know and use them properly. Household resources are classified into two parts:



### Human Resources

Any family may consist of more than one member. Their knowledge, ability, intellect, strength, interest and attitude are known as human resources. Though their resources are immeasurable like material objects but many goals can be achieved by their use.

### Material Resources

All our properties, dwelling house, wealth, including furniture, jewelleris and social facilities are material resources. We can satisfy our needs through these resources. Among these money is the most valuable and effective resource as it can be transacted with other materials. As all resources are valuable, we need to be aware of their use. Maximum benefit can be achieved from limited resource by proper use.

**Task-1** Prepare a list of material resources of your family

**Task-2** What are the human resources your family members Possess?



## **Lesson 2-Planning of time and energy**

In order to reach a goal we have to use both time and energy simultaneously. The following discussions consists of the planning of these two resources.

### **Time Planning**

Time is a resource no doubt but it is limited. Those who can relate themselves to more meaningful works within limited time are more successful. By proper use of time people can be benefitted personally, economically and socially. We need to work more without wastage of time and for this planning of time is essential. Time planning needs a written plan for what, when and how much time be used for specific work.

#### **Necessity of time Planning:**

- Can have ideas about important and less important works.
- Timely work habit is formed for specific work.
- Can have an idea about the amount of needed time.
- Ability and rate of speed for work increases. By following time schedule all work is completed timely and the extra time is used for creative work.
- In time planning there is space for rest and entertainment.

In view of the above facts we should all be careful about time. Timely completion of lessons brings success without which it becomes a burden during time of examination. Everybody should remember the age old maxim "a stitch in time saves nine".

#### **Points to be considered in preparing time schedule:**

- Deciding daily works
- Priority for important works.
- Joint work needs attention for facilities of other.

- Provision for work time, rest, sleep and free time.
- Light work or rest after hard work.
- Time schedule needs to be flexible for any change in between.

**Task-1** Compare the advantages and disadvantages of time schedule

### Energy Planning

Like money and time energy is a resource for the family. A huge number of family goals are achieved by proper utilization of energy. Individuals vary in using energy. Everybody should be careful in proper use of energy. A work can be done in such a way which consumes less energy. Random use of energy creates apathy, fatigue and reluctance. By energy planning wastage can be controlled. In planning energy consumption the following points need to be considered:

- Daily work plan is needed where important works be arranged on priority basis.
- Clear understanding of the work can provide idea about energy, consumption. Attention should be paid to simplify the work for less consumption.
- Division of work according to personal choice brings interest.
- Division of work should also be done according to age. The capacity for work is not same at all ages.
- One work is to be done at a time which brings mental peace with inspiration for more work.
- Both hands need to be used. Moreover every work needs correct posture. Standing position in mopping consumes less energy than sitting.
- Fruitful use of energy can be achieved by work simplification.



Standing position in mopping

### Different ways of work simplification with less labour

- **Time planning**-Daily work schedule will help in easy work.
- **Correct house design**-Adjacent Kitchen with dinning consumes less energy in movement

- **Division of labour**-Work division among the family members according to age, ability and choice can reduce the pressure on a single individual.
- **Right placement of equipment/furnishings**- Each work in its definite space reduces energy waste. Proper placement saves labour with easy handling.



Children should keep their necessary things in proper place.



Necessary kitchen accessories should be kept in proper place to save labour.

- **Use of various labour saving equipment**-Use of washing machine, pressure cooker, rice cooker, microwave oven and electric item saves time and energy.



Washing machine



Microwave oven



Pressure Cooker



Rice cooker



Electric iron

**Task-1** Prepare a list of different labour saving equipment

### Lesson 3-Money management

Money is one of the main material resources of the family. Our demands are endless but money is also a limited resource. We have to meet all our family needs through this. Proper use of money can only meet our demands without any wastage.

In money management we have to plan a budget with the knowledge of total income and expenditure of the family. Priority should go to more important needs. Budget is the main technique by which the family goals can be achieved with limited income. Simply speaking budget is the preplanning of spending income.

#### Necessity of making a budget:

- Budget gives a proper idea about income and expenditure.
- Helps to maintain equality between income and expenditure.
- Savings head helps family savings.
- The most essential needs of a family can be fulfilled by budget on the priority basis.
- Budget checks wastage, brings solvency.
- Helps to stop extravagancy.



#### Rules for preparing family budget

Budget can vary according to income. There may be daily budget, monthly budget etc.

**Firstly-** We must be careful to main three things to make a budget. Budget is prepared on the basis of goal. So goals should be determined before making a budget.

**Secondly**-Total earned income needs to be found. Income from different sources will be added to have a clear idea about income.

**Thirdly**-Different heads of expenditure need to be determined and should be arranged on priority basis. Food clothing, housing, medical treatments, education, savings and entertainment need separate heads. Each head has sub heads also. Allocation should also be kept for subheads. Proper planning can save the family from economic crisis.

In planning budget attention needs to be paid to market price. Expenditure can never exceed income.

Implementation is the next step of a budget. The budget will not be effective without implementation. By implementation a good habit of spending money properly can be developed.

Evaluation is the final stage of making budget. If it fails the cause should be found for further correction.

A budget needs to be balanced. If the income coincides with expenditure a balanced budget is made. A deficit budget is not an expected budget. When the expenditure exceeds income it is a deficit budget. Deficit budget brings burden of loan.

Surplus budget is the best budget. After meeting all the expenses when some amount of it is still left over that money can be spent for some others needs.

**Task-1** Explain the necessity of budget.

**Task-2** Plan budget of Tk 2000 from your given money.

## **Lesson 4- Proper use of joint resources of the family**

Joint resources are those which are used by all members of the family. The household fittings like light, electric fan, newspaper, telephone, toilet, tap water and courtyard/compound are all joint resources. Special care is necessary for their use as slight carelessness may lead to misunderstanding. In order to maintain good family relationship every member needs understanding in using joint resources.

**Light**-Light is used in every room. The light watt varies depending on the nature of work.

Two or three members of a room may have different types of work. But separate arrangement of light in this case is not possible. A bedroom is used for study and sleep but when one sleeps early the other can use a table lamp. To avoid wastage everybody should grow the habit of putting off the light after use.

**Electric Fan**-A room can be shared by more than one member. The fan meets the need of all. Some need more air than others. The person for more air can use the space just under the fan where others can go far. Fan should be used in slow motion for the sick. So fan needs to be used by considering everybody's demand.

**News Paper**- Newspaper supplies news of home and abroad. Therefore everybody should have the facility for reading newspaper. The older members read paper first but the office going people need it earlier. The youngsters can read it either jointly or one after another. Some papers supply exciting news which attracts all members. In this case loud reading by one member can help others to listen. Moreover, different pages can be divided among the members to have the benefit. At the end of the day the paper should be arranged serially and be kept in a fixed place.

**Telephone**-Telephone is the medium for communication. The set should not be blocked for useless talk as it can create problems for urgent message. After exchanging important news the receiver needs to be kept in proper place. It is to be remembered that telephone should be used for important messages.

**Toilet/Bathroom**-Each house may have one or more toilets. Sometimes it so happens that there are more members in comparison to number of toilets. So in using this important place necessity is the priority. Toilet should not be blocked for long time unnecessarily. Regular cleaning of toilet is very important. The floor should be dry and not slippery. Toilet should be disinfected and germ free.

**Tap water-** Everybody should work with understanding in using tap water for different works. Water is necessary for washing utensils, clothings, vegetables and cooking. In order to check water wastage the tap should be closed properly. Floor space needs to be kept neat and clean.

**Water of Well-**In remote areas there are some special kind of wells for water. Facilities need to be provided for everybody to take water from the well. Unnecessary blocking of pails for water creates problems for others. After taking water the well needs to be covered. Keeping the surroundings of the well clean is everybody's responsibility.

**Compound-**People gossip in the compound and children play in it also. The compound needs to be kept neat and clean by which the body and mind can be sound and fit.

**Task-1** I identify the joint resources of your family.

**Task-2** How would you use your room light and fan?

## Exercise

**Multiple choice questions:**

**1. Which one is human resource?**

- a. Money
- b. Park
- c. Energy
- d. Ornament

**2. Use of excess strength can be reduced–**

- i. By working independently.
- ii. Keeping equipment near at hand.
- iii. Doing same type of work side by side.

**Which one 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 question number 3 and 4.**

Sumita, a student of class VIII goes to an institute for learning handwork to help the family. She decorates her room with self made handicrafts.

**3. What type of resource does sumita has?**

- a. Money
- b. household materials
- c. Will power
- d. training institute

**4. By using these resources which type of family needs can be met?**

- i. Economic
- ii. Social
- iii. Educational

**Which one of the following is correct?**

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

**Creative questions:**

1. Rasheda and Sonia are friends. Rasheda makes a plan to meet the needs of the family according to income. So she does not face any economic problem. But Sonia had a tough time to meet the demands of her family members. She has to go for loan from a known shop. Suddenly Sonia's youngest son gets sick for which she borrowed money from Rasheda for son's treatment.
  - (a) Without which resource no family decision is possible?
  - (b) What is human resource? Write.
  - (c) What are the causes of this type of situation for Sonia?
  - (d) Compare the planning of Rasheda in meeting the needs of the family members with Sonia.
2. Shuvo and Nelly are siblings. Shuvo is preparing his lessons in his bedroom and Sonia is in the drawing room. Their mother made arrangement for Nelly to study in Shuvo's room. As there was a single fan in the bed room, Nelly could not get sufficient air for which she was preparing. By seeing the situation, Shuvo asked his sister to sit in such a place from where she can get air.
  - a. What are the different types of resources?
  - b. What is meant by proper use of energy?
  - c. By making arrangement to learn lessons in the same room what resource did she indicate for proper use? Explain.
  - d. Do you agree that proper use of joint resources help developing sacrificing mentality? Justify.



## **Chapter-Two**

# **Home Security**

### **Lesson1- Responsibilities in home security and first aid**

#### **Duties to be done for home security**

Home environment needs to be neat clean and systematic for proper functioning of work, secure movement and rest with comfort. But the environment is not always secure. There is the possibility of accidents. In such cases the following points need to be remembered:

- Furniture and fittings should be kept in proper place so that it does not hamper movement.
- Broken furniture/equipment need to be repaired or removed as soon as possible.
- Sufficient arrangement of light in the staircase, kitchen and other places is necessary.
- Railing around staircase and roof is important.
- Bathroom, kitchen and floor should not be slippery and be neat and clean.
- Removal of broken piece of glass, alpin and needle from the floor is urgent.
- If water falls on the floor of a room, it should be wiped out without delay.
- Knife, scissors, nail cutter and other sharp materials be kept in proper place.
- Kitchen garbage to be thrown in garbage can or dustbin.
- Torn electric wire and broken switch should be repaired immediately and be kept beyond the reach of the little kids.
- Oven be put off after use.
- Medicine, insecticide, fertilizer and others should be out of reach of the children.
- Coverings in drains and manhole is urgent.
- With the awareness and active participation of the family members only the security of home can be ensured.

#### **First aid**

In case of sudden accident or sickness a temporary treatment is given for relief. So we all should have some knowledge about first aid. First aid is that treatment by which the injured or sick person gets temporary treatment before reaching to a doctor.

## Objective

- To save the life of a injured person by preventing the deteriorative factors. such as- to stop bleeding, to arrange artificial respiration if necessary, to feel the pulse etc.
- To give the injured person temporary comfort by improving his condition.

**Task-1** Make a first aid kit box for your family.

## First Aid kits

It is very important to have a first aid kit box in a home for nursing the sick. This box contains sterilized gauze, cotton, bandage, knife, scissors, dettol, potassium permanganate, carbolic acid, spirit and pain killer. The box should be kept in a reachable place.



First Aid kits

## Lesson-2 Different types of accidents

Accidents may be major and minor. Minor accidents are not very serious. They can be treated easily with first aid. The following go under the category of minor accidents:

1. **Small injury-** Pressed muscle nail cutting, eye disturb, hot steam are known as small injury. In such case we have to do-
  - In case of *nail crushing* cold water or ice pack should be applied. Application of antiseptic cream or savlon will do also.
  - If the position of the nail comes down and afflicts, antiseptic cream or savlon should be used to remove it.

- ☐☐☐☐ In case of eye disturb, the eye must be washed with clean cold water.
  - ☐☐ In case of *steam injury* application of ice, cold water, salted water and toothpaste can be ideal.
2. **Cut injury-** In case of any cut injury with chopper, knife and blade the following points need to be remembered:
- The injury should be cleaned with water and pressed with a piece of cloth. It should be kept in upright position to stop bleeding.
  - It should be bandaged by using savlon, dettol and Nebanol cream.
  - In case of emergency physicians need to be consulted.
3. **Insect bite:** If we get a bite from bees, ants, thorneds, wasps we have to do-
- ☐☐☐☐ In case of any insect bite like bee, ant and others the sting should be removed by burning the needle head with disinfectant. Sometimes onion or lemon juice can be applied.
  - ☐ If necessary we have to go to any physician.
4. **Thorn wound-** In case of thorn injury in hands or legs the important thing to do is-
- If the part of thorn is visible it should be removed through a pincer.
  - ☐☐ If the sting is not found we have to remove it by any needle after sterilization by burning. Then the place must be washed by liquid antiseptic.



Remove sting/thorn

5. **Stucking of throat-** sometimes a little piece of bone or fish bone gets stucked in the throat which bring uneasiness. The possible remedies are:
- Swallowing dry rice can help sometimes.
  - Ripe banana is also a helpful remedy.
  - In emergency a doctor needs to be consulted.

6. **Eye problems:** By dust eyes can be affected no doubt. Sometimes eye petals create problem through their entrance.

- Cold water splash can be an ideal treatment. Eyes should not be rubbed.
- ☐ Doctors consultation is needed.

7. **Ear problems:** We feel disturbed if any ant or insect enter our ears. In such case we have to do-

- ☐ Ant bite in the ear or by any other insect need stopping respiration for a while till the insect comes out.
- ☐ We may consult any physician is necessary.

### Lesson-3 Major accidents (Senselessness burning and snake bite)

In major accidents people are wounded with the risk of death. So everybody should have some knowledge about major accidents. The major accidents include: Senselessness, Burning, Snakebite, Fracture, Drowning and Electric shock.

In case of major accident, we have to do-

1. **Senselessness-** People become senseless due to extreme heat, fear, hunger, bad news and weakness. In such cases the immediate first aid should be:

- The patient should be kept in supine position with upright leg for blood circulation. Attention should be paid to respiration and pulse rate.
- Arrangement for free air circulation.
- Loosening of clothes.
- Intruding folding handkerchief in between teeth to avoid teeth blocking.
- ☐ We have to sprinkle water in eye & face.
- Massaging hand and feet.
- Hot milk to be served after regain. Doctor's advice is needed.



Nurning in senseless person

**2. Burning:** Sometimes, the dress we put on catch fire. Again, we get burnt by steam water, oil, milk etc. The steps to be followed as:

- To undress at first.
- If we can't remove the dress from our body easily, we may lie down on the floor and roll on floor to extinguish fire.
- Embracing with heavy quilt or gunny bag can help.
- Use of cold water or ice to stop blistering.
- The blister should not be touched.
- Use of more fluid and doctor needs to be consulted.

**Task-1** What will be your responsibility in senselessness of a classmate?

**3. Snakebite:** Snakebites are common in rural Bangladesh. So everybody should be cautious about it. In case of venomous snake bite the signs are like this ":" But when the signs are like "::" this; the bite is not dangerous. The following steps are urgently needed:

- Tight bandage in the affected area to avoid poisoning blood circulation.
- To burn sharp blade or knife to make it germfree and be wiped by dettol or savlon.
- 1centimeter affected area be cut down to remove blood.
- The bandage should not be kept more than 30 minutes as it will hamper blood circulation.
- The patient should be awake with hot serving of milk or tea.
- Doctors consultation is urgently needed.



Bandage in Snakebite

## **Lesson 4-Bone fracture, drowning and electric shock**

**1. Bone fracture:** Any part of the body can be broken or fractured. It is very

troublesome for the wounded person. Things to be done in these cases

- The affected area needs to be placed on a piece of wood and be wrapped very lightly with a piece of cloth.
- • Never try to straighten the bone.
- Physicians consultation is very important.



Steps to be taken in fracture

**2. Drowning:** Drowning occurs in case of children and mostly with people who do not know swimming. In *drowning the following steps are needed:*

- Want help by shouting.
- Throwing materials like bamboo, branches of tree, blank pitcher, wood piece to float.
- After rescuing from water, respiration and pulse rate need to be taken care. In drowning if water enters respiratory canal and lungs, it stops respiration.
- The patient need to be lain down in one side by lowering the head.
- The stomach will be pressed in such a way so that water can come out. This is the way of artificial respiration.
- Immediate consultation with the doctor is urgent.



Artificial respiration

**3. Electric Shock:** People get electric shock due to ignorance or carelessness. The shocked person should never be touched with barehand as it will also shock the other.

In electric shock, the following steps can be take

- Stop the main switch immediately.
- Dry wooden stick or a piece of bamboo can be used to push the shocked person.

- Use of rubber gloves and slipper is necessary.
- Artificial respiration should be started.
- The patient should be lain down for massaging which will help circulation.
- Doctor's advice is needed.



Rescuing the shocked

**Task-1** Act your role in attending an electric shock patient.

## Exercise

### Multiple choice questions:

**1. Which one is disinfectant?**

- |           |             |
|-----------|-------------|
| a. gauge  | b. sticking |
| c. spirit | d. Bandage  |

**2. The aim of the family is--**

- Satisfying needs
- Achieving goal
- Ensuring security

**Which of the family is correct?**

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

**Read the following paragraph and answer question number 3 and 4.**

Rana came to school in summer morning with perfect health. The school was facing load shedding for 2 hours. Suddenly Rana became senseless in practical class. All the students assembled together and the place became crowded. Rony, a friend of Rana told the student to stop gathering.

**3. What was the reason for Rana's senselessness?**

- |           |                   |
|-----------|-------------------|
| a. Hunger | b. Hot class room |
| c. Fever  | d. Fear           |

**4. What was the responsibility of Rony for Rana?**

- i. To lie down on back
- ii. Arrangement for air circulation
- iii. Splashing water in the face.

**Which one of the following is correct?**

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

**Creative Questions:**

1. Roksana's home is very clumsy and unclean. Last month Roksana's youngest son Jawad had hand fracture from the slippery bathroom. Moreover a day before her daughter Mitu cut her leg with a blade for which she had bleeding. The mother stopped bleeding by using clean cloth with disinfectant. She consulted a physician afterwards.
  - a. Which home environment removes tiredness?
  - b. Home is the place for peace.
  - c. What is the name of the method taken by Mitu's mother in accident?
  - d. Is Roksana's home environment secure?
- 2.



Towkir the friend of Ratul had snake bite. Ratul followed the procedure as demonstrated in the picture. After sometime an aged man told that the bandage should not be kept for more than 30 minutes as it can create problems in circulation. Ratul and his friends understood the matter and took proper steps of treatment.

- a. What is first aid?
- b. Why is cold water used in burning? write clearly.
- c. Explain the process of treatment taken for Towkir.
- d. Justify the utility of bandage in the affected area.



## **Chapter-Three**

# **Home nursing for the sick**

### **Lessson-1-Cleanliness and equipment of the sick room**

In our normal daily life we are attacked by some kinds of disease. In most of the cases we are cured by medical treatment and proper nursing at the same time. In case of any disease special care needs to be taken. Soundless and healthy environment is necessary for comfort and rest. It should be noise free without pollution. Moreover a sickroom should have sufficient air and light. Proper nursing can give the sick quick relief.

**Equipment of the sick room:** The healthy atmosphere of the room of a sick person may be ensured, if the room is spacious and neat & clean. Excess furniture should not be allowed in a patient's room. Only the necessary equipments may be kept in specific places to use, easily. The necessary equipments for a patient's room are-

- Clinical thermometer
- Feeding cup, glass, plate and jug
- Bed pan, urinal
- Hot and cold water bag
- Time table, calling bell and torch light
- Room heater with water heater
- Flower vase with flower
- First aid box
- Pail, mug etc.

### **Cleanliness of the sick room:**

Cleanliness is the priority of the sick room. All utensils including patient's bed, bed sheet and pillow need to be very clean.

The room should be washed with phenyle and dettol. Plate, glass and bed pan need to be cleaned with soap every day. White and light coloured curtains are ideal for the sick room. The adjacent room of the sick also need to be kept, neat, clean and germ free. The room should be free from mosquitoes and flies. With healthy environment the patient can get well soon.



sick room

**Task-1** Prepare a list of equipments for fever patient.

**Task-2** Write the ways to keep sick room neat and clean.

## Lesson-2 Nursing Patient

Nursing is very important for any patient. Diseases make the person weak both in body and mind. By proper nursing, the sick gets well soon. The family members should take the responsibility of nursing.

The following functions are included in proper nursing-

- Measuring temperature
- Determining pulse rate
- Determining rate of respiration.

**Measuring temperature-** 98.4 degree Fahrenheit is regarded as normal body temperature. But this degree changes depending on the severity. To determine the nature of disease, rate of changes need to be recorded. A clinical thermometer is used for this purpose. The mercury level goes up in fever. To determine the nature of temperature the following points need to be remembered.

- Whether the mercury is stable in 94 degrees.
- The thermometer should be placed under arm or under the tongue.
- It needs to be kept 2 minutes in the specific place for recording.
- The nurse should take the temperature by herself.
- Finally the temperature should be recorded in the daily chart.

### Rules for keeping temperature record-

The temperature should be written in a piece of paper as shown in the chart. It is measured according to the instruction of the doctor. It is taken more than one time.

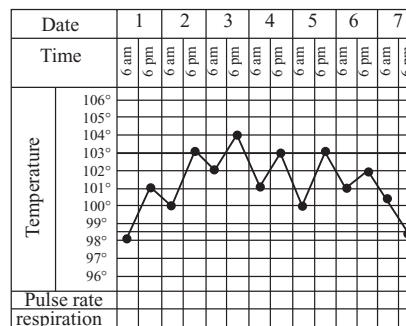


Chart of recoding fever,  
pulse rate and respiration

### Pulse Rate

By placing finger on the wrist the pulse rate can be counted. Pulse rate increases in fever. Moreover in exercise, bleeding, nerve injury and heart problems this rate goes high. Pulse rate is counted very attentively to keep the record.

In normal condition the pulse rate in every minute is

<input type="checkbox"/> • For the newborn 130-140 beats/min	• For 8-14 years 80-90 beats/min
<input type="checkbox"/> • 1 year 110-120 beats/min	• Female adult 65-80 beats/min
<input type="checkbox"/> • 2 years 100-110 beats/min	• Male adult 60-72 beats/min

Pulse rate increases in fever. Moreover in exercise, bleeding, nerve injury and heart problems this rate goes high. Pulse rate is counted very attentively to keep the record

**Rate of respiration:** To understand the rate of respiration the patient should be lied on back to breathe normally. The ups and downs of the chest be counted for determining respiration. Temperature, puls rate and rate of respiration mentioned in the chart can help the physicians to observe the real conditon of the patient.

**Task-1** Measure the temperature of you with your family members by thermometer.

**Task-2** Find out the pulse rate of your 5 friends.

### **Lesson-3-Physical and mental care of the sick**

Both nursing and physical and mental caring for a patient's recovery should be considered with great importance. A healthy person himself can perform his daily necessary activities such as-bathing, putting on dress, eating etc. But a nurse is essential to do this work for a patient. The care of the patient must be a proper way. A patient needs physical and mental support from all the members of a family to come round soon.

**Physical care:** To keep a patient in suitable and comfortable position physical care is essential. During sickness a patient becomes very weak, so he needs special care. The physical care of the sick need the following:

#### **Selection of diet with serving**

By considering the nature, age, tastes and digestible power of the patient balanced food needs to be served. All disease does not demand same type of food.

In high fever, calorie enriched easily digestible food need to be served. Children suffering from Kwashiorkor need more protein food. But in case of kidney patient protein should be avoided. In diabetes there is fewer requirements of carbohydrates. Salt and fatty foods are restricted in blood pressure and heart disease. Diarrhoea and high fever demand saline and liquid food for recovery.

The aged and children need non spicy and soft food for digestion. In all these cases the matter of taste should also be considered to avoid monotony. The weak patient can use feeding cup and spoon.

**Use of medicine**-Medicine should be given within the specific time. Carefulness should be maintained about the quantity.

### **Clothing of the sick**

Soft and light colour is appropriate for the sick. It should be loose and comfortable. Clothings should be changed and washed every day.

### **Cleanliness of the body**

Every morning after sleep brushing of teeth with face washing is very important. The body needs to be sponged everyday in the absence of daily shower. The nails should be cleaned. Brushing of hair is necessary for two to three times. Bed pan should be used for toilet; lukewarm water is suitable for the sick.

### **Mental care of the sick**

Like physical care mental care helps the sick to get well soon. Nursing needs patience with sympathy. Good relationship with the sick is very important. The patient should not be left alone. There should be proper arrangement of entertainment according to interest. Flowers are entertaining. It keeps the mind joyful. The sick should always be encouraged for better future so that the mind gets strength.

**Task-1** How can you take physical care of your family member in fever?

**Task-2** What role would you play in taking mental care of the patient.

## Exercise

### Multiple choice questions:

**1. What is the pulse rate per minute of the Juveniles in normal condition?**

- a. 60-75 times
- b. 65-80 times
- c. 80-90 times
- d. 90-100 times.

**2. In nursing the sick the environment should be:**

- i. Noisy
- ii. Neat and clean
- iii. Airy with full of light.

***Which one of the following is correct?***

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

**Read the following paragraph and answer question number 3 and 4.**

Tonu comes home from school by getting wet in Baishakhi storm. After returning, she used cold water. Sometimes later she started coughing with fever and cold. The mother told Dhurbo the younger brother not to touch Tonu's used handkerchief.

**3. *The cause of not to touch the used handkerchief as the disease is-***

- i. Contagious
- ii. Genetic
- iii. airborne

**Which of the following is correct?**

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

**4. *What needs to be done for the patient?***

- a. Washing daily used materials once in a week.
- b. Drying clothes in light sun.
- c. No use of curtains in doors and windows.
- d. Disinfecting used materials.

**Creative questions:**

1. Munna has been suffering from fever for 2-3 weeks. There is irregular remission of fever. The mother washes the head with body sponging. As the fever continues, she takes him to a doctor. The doctor told the mother to keep record of the rate of change with awareness in diet of the sick. She serves different types of fresh calorie food which are easily digestible.
  - a. What is the normal temperature of the body?
  - b. What type of thermometer is necessary for measuring temperature?
  - c. Why did the doctor ask to keep record of the changing body temperature?
  - d. Was the diet sufficient for Munna's cure? Justify your answer.

## Section-B

### Child Development and Personal security

Rapid change takes place in adolescence. Children sometimes face disaster for lack of advance preparation and scientific knowledge. So it is very urgent to know the technique of saving the self from unfavorable situation. Besides they have the duty to protest against drug abuse, dowry, and early marriage. They should also know the method of immunization, vaccine and injection for common childhood diseases.



**At the end of the section we will be able to—**

- ☐ • ☐ change of adolescence with causes.
- ☐ • ☐ describe the technique of adjustment with family and society.
- ☐ • ☐ describe the symptoms of common childhood disease with prevention and control.
- ☐ • ☐ describe the use of immunization vaccine and injection of different diseases.
- ☐ explain the characteristics of children with special needs with duties to them.
- ☐ explain the ways to save from the evil effects of drug abuse, early marriage, dowry and sex abuse.
- ☐ describe the considering factors in friend selection and the harmful effects of media.



# Chapter- Four

## Adolescence

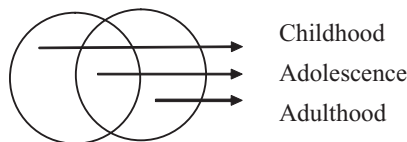
### Lesson1- Changes in adolescence

Adolescence is the time for rapid change. The important physical changes include changes in height, weight including different sexual changes. Sexual change is a developmental change no doubt. If we don't have proper idea about the type and cause of this change, it may create a complicated situation or make our mind anxious.

Through these changes the child becomes a 'grown up adult.' Complicated situation may arise without any knowledge about its nature and causes. That is why adolescence is called the age of 'storm and stress'

#### What is the necessity of knowing the causes of adolescent change?

- By knowing the physical and mental changes of this stage we can have mental preparation.



- ☐ • ☐ Can accept the changes easily.
- ☐ • ☐ Can prepare younger siblings of the family ahead of time.
- ☐ • ☐ Can advise any children about changes.
- ☐ • ☐ Can protect the self from unexpected situation.
- ☐ • ☐ Can have open discussion with adults
- ☐ • ☐ Can be able to adjust with family and society easily.

The ages from 10/11 to 18/19 is called the age of adolescence. The first half that is the age 10/11 to 14/15 is more important. During this time the body size and shape change. The change in height, weight with other organs takes the form of an adult. Sexual change starts at this age. Sexual change is divided into two parts-

#### 1. Primary sex characteristics

The characteristics are related with reproductive functions. Boys and girls have different sex organs. Boys have testes, scrotum, penis and girls have ovary, uterus, and

vagina. The shape and size of these organs change with function in adolescence. Girls start menstruating and boys with sperm secretion.

## **2. Secondary sex characteristics**

By these changes boys and girls can be identified. These changes are not directly related with reproduction. In case of boys these include beard and moustache, change of voice and the girls have development of breast. Both boys and girls develop pubic hair in their secret organs. The changes take 4 years to complete, which may differ in different cases.

Some of the adolescents mature early before age. They are called early maturer. Those who start a bit later are known as late maturer. These changes depend on generic factor, weather and food habit.

**Task-1** How would you be benefitted by knowing changes of adolescence? Write.

**Task-2** Adolescence is the time for rapid change-write elaborately.

## **Lesson 2- Causes of adolescent change**

There may be some questions about the causes of the sudden changes of human body. Everybody should know that some chemical substances are responsible for these changes which are called hormones.

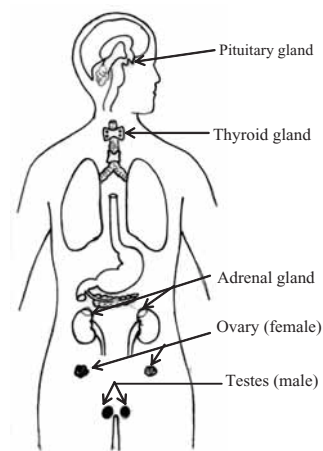
### **What is hormone**

Human body possesses some glands. These glands are one celled which secrete chemical substances. They are created by normal process and goes to blood directly for circulation in different parts of the body. The hormones make important changes and controls different functions of the body. These high powered biochemical substances are hormones.

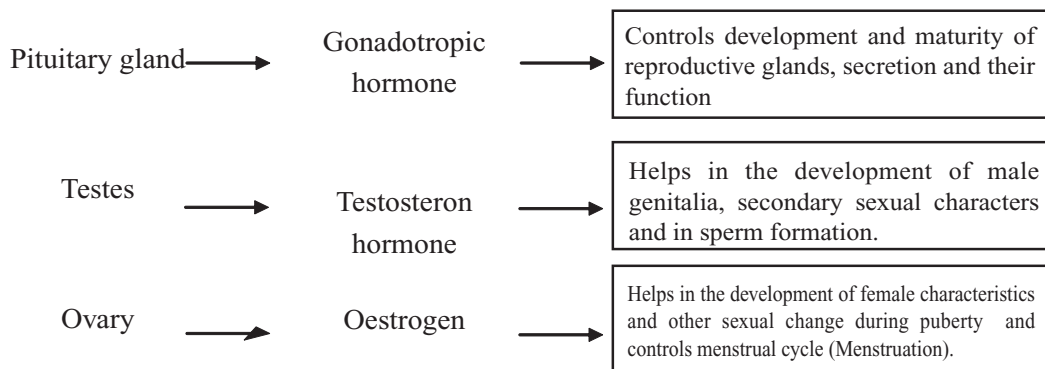
Growth hormone controls physical development. Children become tall with good bones for this secretion. But after sometime the secretion of growth hormone stops with its development.

The pituitary gland is situated under the brain. It secretes gonadotropic hormone in adolescence for which boys secrete testosterone for creating sperm. Testosterone is responsible for different male changes with secondary sexual characteristics.

Gonadotropic hormone completes the full size of ovaries which secrete estrogen. This hormone is responsible for female body changes, menstruation and other sexual changes.



Position of Endocrine gland



As long as the body remains like a child, they do not have any attractions toward opposite sex. But with the beginning of the secondary sex characteristics they have that feeling. This is the age for many questions about changes. If these can be expressed to some dependable ones behavior is less disturbed.

**Task-1** What are the functions of different hormones for different adolescence change? Show in chart.

**Task-2** Describe in chart the functions of hormones.

### Lesson 3- Adolescent adjustment with the family

During adolescence relationship with the family including parents changes a lot. Most of the time it becomes worse. In such cases both parties can be held responsible. Therefore knowledge of problems comes first before knowing adjustment technique.

- **Mentality difference:** Gulf of difference exist between the mentality of parents and adolescents. Social change with age difference is the main reason for this difference. In most of the cases adolescents think that parents are unfit for their generation and thus they disobey their parent's command.
- **Family restriction:** Adolescents like freedom. Adults interference is intolerable and they protest against this which leads to mental agitation.
- **Sex wise behavior:** There is family pressure for sex wise behavior for girls only but not for boys. Restriction in movement, objection in mixing with opposite sex create problems.
- **Losing interest in responsibilities:** More calories are spent in adolescence due to physical changes. Work reluctance, boredom in studies may create fatigue. Parents pressurize their adolescents for attentiveness in studies. These create distance between parents and children.
- **Economic need:** This age demands outing with friends. They need clothing and appropriate materials for education. Adolescents become unhappy when their needs are not satisfied for economic insolvency.
- **Relationship with parents:** Difference of opinion and absence of good relationship between parents create unhappiness among children. There is no denying of the fact that all parents love their children. It is to be remembered that restriction is imposed for the welfare of the children. Children should always express their demands clearly. They should discuss about their need for books, educational materials and others with parents. In case of any difficulty in carrying family responsibilities open discussion can remove complications. You can never know that you can play a very special role in removing parental difference of opinion. There is no hard and fast rule. Use your own intellect to find out the solution.

The greatest resource of all human being is knowledge, intellect and ability to work. These are essential for adjustment throughout life and adolescence is the

best time to acquire skill. Remember you all have to stand by yourselves and for this the following points are very important:

- ☐ • ☐ Parents and family members should be properly honored and loved.
- ☐ • ☐ Should be more attentive in preparing lessons.
- ☐ • ☐ Carrying out the responsibilities of parents.
- ☐ • ☐ Unnecessary expenditure should be avoided.
- ☐ • ☐ Open discussion with parents and siblings can solve any problem whatsoever.

By following these points you can create a very happy and healthy atmosphere.

**Taks-1** State the causes of family problems in adolescence.

**Taks-2** Write the techniques of adjustment with the family.

#### **Lesson 4- Social adjustment in adolescence**

In adolescence more time is spent in school and with peer groups.

**School adjustments**-An adolescent spends more than one thousand hours in once class in a year. Positive school adjustment can help adjustment in later life. Moreover it also leads to future success in life.

12 year old Mahiyat is starting his new school after his father's transfer. He has many questions about friends, teachers and others in his mind. These questions lead to the topic of adjustment which means adjustment with lessons, teachers, class friends, class routine and others. He does not like secondary school subjects like the primary ones. The main reason is the unclearness of the subject matter. Clear understanding makes it easy to remember which can be applied in practical life.

Teachers like sober, obedient and attentive students. They praise them with inspiration. The indisciplined and the unruly students are not liked by them. The

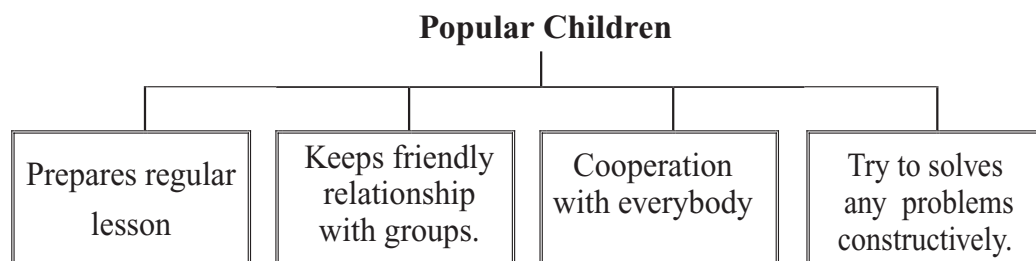
praise and encouragement gives incentives which bring success. The following points need to be remembered:

- ☐ • ☐ Attentive listening to teacher's lessons.
- ☐ • ☐ Any unclear subjects need to be cleared from the teacher.
- ☐ • ☐ Spontaneous answering of questions.
- ☐ • ☐ Completing class and home work timely.
- ☐ • ☐ Taking the self responsibility in group work and carrying it out properly.
- ☐ • ☐ Obeying school rules.
- ☐ • ☐ Regular school attendance except sickness.

**Task-1** Write down-What should you do in school adjustment?

### **Adjustment with class mates and peer groups**

We all should know the causes of popularity and unpopularity of adolescents. In order to be popular among the peer groups some tips need to be remembered.



Everybody rejects the aggressive child and the child who is uncooperative, create problems.

One of the best ways to become popular is to participate in all extracurricular activities in games, recitation, music, acting, debate and science fair. Moreover good relationship with neighbors and relatives is also an important responsibility of the adolescents.

Good relationship can also be maintained by regular contact, exchange of greetings and helping others in distress.

**Task-1** Write the characteristic of your most popular class friends.

## Exercise

### Multiple choice questions:

1. Which gland is situated under the brain?
  - a. Thyroid gland
  - b. Pituitary gland
  - c. Adrenal gland
  - d. Testes gland
2. Which change does consume more energy in adolescence?
  - a. Physical development
  - b. Mental difference
  - c. Friendship with many
  - d. Strict discipline

**Read the following paragraph and answer question number 3 and 4.**

15 year old Kona frequently goes out with friends. Her parents do not like her free movements for which they get angry and agitated.

**3. The cause of this type of behaviour is:**

- a. More parental attention
- b. Free movement
- c. Too much intimacy with friends
- d. Change of mentality in a definite age

**4. In the above stated situations of Kona:**

- i. There can be difference of opinion with the family.
- ii. Mental development may be hampered.
- iii. Physical ability may be lessened.

**Which one of the following is correct?**

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

**Creative questions:**

1. 14 year old Joya and Rimi are twins. They are always busy with watching TV and going out with good grooming. The school teacher complains about their inattentiveness in classroom with learning language. The mother cannot accept this change at any cost. She does not even express her feelings with her daughters openly.
  - a. Which age is called childhood?
  - b. What happens when hormone is not secreted properly?
  - c. Explain the causes of Joya and Rimi's problems.
  - d. Would the role of the mother help in acquiring necessary ability?
2. Kona is younger by 2 years than her brother Javed, a student of class X. Both brother and sister are growing simultaneously with all their activities. The parents have been noticing some changes in Javed's behaviour. He goes to saloon by himself and looks at his appearance through the mirror. Kona has also changed. She is interested in skirt and tops. She reads film fare books and gets different information about adults.

The mother noticed this and explained the changes to them very easily. She presents appropriate books to Kona as gift item.

- a. What is the other name of childhood?
- b. Why is adolescence called the age of 'storm and stress'?
- c. What are the changes noticed in Javed's behaviour?
- d. Easy relationship with parents is helpful for Kona and Javed's physical and mental development-Explain.



## **Chapter-Five**

### **Alertness about disease**

The surrounding environment in which we live is full of germs. These cannot be seen by open eyes. Some of these are very harmful. These germs enter in our body through food, skin, respiration and others. But we do not fall sick instantly as we have resisting power to fight against them. But with poor resistance we get sick with fever, cough, diarrhoea and others. This chapter deals with the methods of dealing with disease and also the immunization vaccine and injection.



#### **Lesson 1- Common childhood diseases**

Children can be attacked by different contagious diseases. The common causes of these are:

- ☐ • ☐ Low birth weight
- ☐ • ☐ Premature birth
- ☐ • ☐ Food deficiency or maternal sickness during prenatal period.

- ☐ ☐ ☐ ☐ No breast feeding after birth. The first milk contains colostrums which creates resistance power to fight against disease.

- ☐ • ☐ No complementary diets after 6 month.
- ☐ • ☐ No timely preventive vaccine or injection.

The above reasons are responsible for making the child weak and sick. The following are the contagious childhood diseases-

**Fever:** Everybody has some idea about fever. We all know that the normal body temperature is 98.40 Fahrenheit. But the baby body temperature is 99.0 Fahrenheit. When the temperature rises beyond this it is considered as fever. There can be many causes of fever like infection, allergy etc.

**The following steps should be followed in low grade fever:**

- ☐ • ☐ Using light cotton dress.
- ☐ • ☐ Light and airy room.
- ☐ • ☐ Washing head with body sponging.
- ☐ • ☐ Serving light liquid food specially saline water, fruit juice, soup and milk.
- ☐ • ☐ Following physician's advice.

**Taks-1** Describe your duty in sudden rise of temperature.

**Duties to be done in high fever:**

High fever is common among the children of 1-5 years. It may rise upto 105° F. which is very harmful for brain and nerve. The symptoms of high fever are:

- ☐ • ☐ Convulsion and abnormal appearance.
- ☐ • ☐ Increase in the rate of respiration and pulse.
- ☐ • ☐ The child can become senseless.
- ☐ • ☐ Frequent vomiting and diarrhoea.

**The following steps should be taken:**

- ☐ Frequent sponging the body till fever comes down. The body should be made dry with cotton clothes.

- ☐ In case of 104°-105°F temperature a shower is necessary to bring down the temperature to 2/3 degrees.
- ☐ Arrangement for free air and light should be made. Light cotton dress is the ideal.
- ☐ Consultation with the physician is immediate.

#### Diet in fever:

- In fever the metabolic rate increases. Nerve and tissues wear off and there is more need of protein and other food.
- ☐ Fish, chicken, milk with bread, soup, soft rice, light lentil can be served for easy digestion.
- ☐ In fever as there is huge loss of water, sodium, potassium and sweat the power of resistance decreases. So there is the need for sufficient fluid.



Bathing to reduce temperature during fever

#### Lesson 2- Diarrhoea

Diarrhoea is water borne disease. It originates from unclear and bacterial food. In diarrhoea, food is not properly absorbed and digested for which it comes out rapidly with stool. The symptoms of diarrhoea are the following:

- ☐ Frequent loose motion
- ☐ Vomiting tendency
- ☐ The fontanelle goes down
- ☐ Sunken eyes
- ☐ Tantrums
- ☐ Dryness of tongue and lip
- ☐ Loss of weight and senseless
- ☐ Patient becomes dehydrated



Mother is feeding oral saline

**Steps to be taken:**

The child should be served oral saline immediately to stop dehydration. ORS should be continued as long as the patient goes to toilet.

- ☐ • ☐ Continue breast feeding with normal food.
- ☐ • ☐ Liquid food like rice based water & sweetened water can be served.
- ☐ • ☐ In case of severe dehydration the child should be hospitalized.

**Oral Rehydration Saline(ORS):**

In diarrhoea huge amount of watery substance with potassium bi-carbonate, sodium chloride and glucose is discharged. Saline compensates this requirement. Saline contains sodium chloride, sodium nitrate, potassium chloride, glucose and pure water. Saline can be prepared easily at home.

Ingredients	Quantity
Molasses/Sugar	a handful
Salt	a pinch
Pure water	1/2 liter(500 ML)

The ingredients will help making ORS at home. The prepared saline should be finished by 12 hours. The main goal is to stop dehydration.

**How to use ORS:**

- Breast feeding will continue.
- Physician's advice is necessary.
- Saline should be given each time when the patient goes to toilet.
- The process will be continued even if the patient vomits.
- Soup, fruit juice and soft rice will also continue with saline.
- Rice saline can be served if necessary.

**How to prevent diarrhoea:**

- ☐ • ☐ Always use pure boiled water or tube well water.
- Milk should be boiled perfectly.
- Food should be covered to protect from flies and insects. Avoid old and rotten food.

- Plates and glasses should be washed with pure water.
- Hand wash with soap/ ash is very important.
- Fruits bought from market should be washed with pure water.

**Task - 1** How can you alert your family to save from diarrhoea?

### **Lesson 3- Cold, cough, influenza and worm**

**Cold and cough-**We are all acquainted with cold and cough. Many children are attacked with these diseases mostly during season change. In summer, the source of these are dust and sweat.

#### **Things to be done:**

- Use handkerchief or tissue. Gurgling with hot saline water.
- Plenty of fluid like saline, fruit juice and others be taken.
- Take doctor's advice if necessary.

**Influenza** - It is an airborne contagious viral disease. The symptoms come out within 18-72 hours of virus attack. It stays 5-7 days for children and 3-5 days for adults to recover. The disease is accompanied by high fever with cold and cough, headache, muscle and throat pain.

#### **Things to do:**

- Use handkerchief in cough and spitting everywhere should be avoided.
- The affected child should be kept in a separate room.
- In high fever head should be washed with sponging the body carefully.
- Soft and liquid food is the proper diet, cleanliness is necessary.
- Treatment should continue according to doctor's advice.

#### **Prevention:**

- Proper dress according to change of season. In case of huge sweating in summer the body needs to be wiped to make it dry.
- Drinking pure water and other liquids. In such cases exercise, rest and balanced food is necessary. Special care need to be taken to avoid contagiousness. Crowd should be avoided and the use of musk is important.

**Worm:** - Worms live in the intestine as parasite. In our country most of the children are victims of worms. This is a serious health problem for children. There are 3 types of worms-

1) Round worm 2) Thread worm and 3) Hook worm.

**1. Round worm:** It is round shaped bigger in size and looks like earthworm. The eggs of this worm enter into human body through green leafy vegetables and fruits. In case of worm attack the following symptoms become expressive-

- The stomach is inflated. Vomiting tendency with loss of appetite, weight loss is common.
- There is indigestion and physical weakness with stomach pain, malnutrition and anaemia.

**2. Thread worm:** It is smaller in size and looks like thread. The female worm lays eggs in the rectum. At the time of itching the rectum, these eggs enter the nails and spread all over. The symptoms are; there is itching and the eggs are seen in the rectum.

**3. Hook worm:** Barefooted children mainly have this type of worms. The eggs enter the body through skin and intestine and become big worms after. The symptom is anaemia and the child looks pale.

**Ways to prevent:**

- Stop toileting everywhere. Use sanitary toilet.
- Hand should be washed with soap before meal and after using toilet.
- Raw fruits should be washed before eating. Cold and old food need to be avoided.
- Nails and fingers should be kept small and clean.
- No barefooted movement.
- Everybody should take antiworm medicine together as per physician's advice.

**Lesson 4-Measles, tuberculosis, poliomyelitis and mumps**

**Measles:** This is a contagious viral disease. Anybody can be attacked by this but mostly children are the victims. The exposure time is 14 days. The symptoms are the following:

- At first there is cold attack with running nose and eyes, headache and swelling of face.
- Temperature rises up to 103° F – 104° F. After 3 to 4 days rash comes out at the back of the ear and spreads all over body and face. The whole body is covered with deep pink and red coloured rashes. After 5 to 6 days the colour becomes lighter and the fever subsides. It takes 9-10 days for the rashes to get dry.

- The rash in the eye makes the eye lid swollen and red.
- Rash inside the throat is very painful for the baby to eat.
- Sometimes the child is attacked with pneumonia, diarrhoea and malnutrition.

**Steps to be taken:**

- The patient should be kept in a separate room. No one should enter except the nursing person. Before dealing with other people she should change her clothes and wash hands and face.
- To avoid complications doctor should be consulted.
- Liquid food be served very frequently.
- The environment should be neat and clean.

**Prevention:**

- Measles stricken house should be avoided.
- The child needs to be vaccinated at the age of 9 months with MR (measles-rubella) vaccine & at the age of 15 months with 2nd dose of measles vaccine (MCV2-measles contained vaccine 2).

**Tasks - 1** write the steps to be taken to protect from worms and measles.

**Tuberculosis**

It is a very dangerous contagious disease. The bacteria is called microbacterial tuberculosis. The bacteria spreads through sneezing, coughing and spitting.

**Symptoms:**

- It starts with low grade fever and cough.
- Loss of appetite with weight loss.
- The affected gland enlarged with pain.
- Long time dry cough which comes with blood.
- Evening rise of temperature and rapid pulse rate with tiredness.
- Besides poor socioeconomic status, poverty and malnutrition are other symptoms.
- The other causes are unhygienic home condition, air pollution and ignorance about the disease.



Child suffering from T.B.

**Steps to be taken:**

After the exposure of symptoms immediate consultation with the doctor is necessary. Complete rest along with nutritious food in a separate room should be arranged. The room should have enough light and air. The patient's cough should be thrown in a fixed pot. All used materials should be separated and be neat and clean.

**Prevention:**

A dose of BCG vaccine after birth can save from miliary tuberculosis.

**Poliomyelitis**

Polio virus attack stool of the child is the source of this disease. Children of less than 10 years are mostly the victims. The incubation period is 7-10 days.

**Symptoms:**

- ❑ •❑ Cold, cough and headache with slight temperature within 1-3 days.
- Headache increases after 3-5 days and neck becomes stiff with the paralysis of hand or leg. The baby refuses to stand and cries in its attempt. The affected part gets weaker day by day with final crippling.
- If the virus attacks respiratory muscles the baby can die also.



Polio affected child

**Things to be done:** This is a very contagious disease. So the patient needs separate rooming immediately.

**Prevention:** 4 doses of polio vaccine can protect from the disease.

**Mumps**

It is a viral contagious disease. Children between the ages of 5-15 years are mostly affected by this. The exposure time is 2-3 weeks.

**Symptoms:** It starts with fever. One or both sides of neck and ear is swollen accompanied by pain which spreads in the mouth. Opening the month becomes difficult. Sometimes testes, kidney, ovary, heart, eye and ear may be affected.

**Things to do:** Liquid food like milk, fruit juice and soup is the ideal for the patient. Gurgling with hot saline water is necessary. Doctor should be consulted.



### **Lesson 5-Immunization vaccine injection**

Prevention is better than cure. The EPI program of the health service of the Govt. of the People's Republic of Bangladesh is an important, remarkable and timely approach. It is a worldwide programme and the main objective of it is to stop premature death and disability. That is why world wide special attention is paid to prevent it. Besides prevention is easier and less expensive than treatment. The main objective of vaccination is to reduce infant and maternal mortality (IMR & MMR) in Bangladesh. Children of less than 1 year are more vulnerable. For this reason all children needs to have the required vaccination as early as possible. The following diseases can be prevented through EPI programme :

**BCG vaccine:** This vaccine is used for tuberculosis. After 2 weeks of vaccination the place becomes red with swelling and again 2 or 3 weeks after it becomes hard with wound. The wound subsides slowly. This is applied after birth.

**OPV vaccine: (Oral polio vaccine)**

This vaccine prevent poliomyelitis. This is applied in 4 doses. The first dose starts 6 weeks after birth following the second one after 28 days with the third one again after 28 days. The final or the fourth dose is completed at the age of nine months.

**Pentavalent vaccine:** This is a combination of 5 vaccines which covers diphtheria, whooping cough, tetanus, hepatitis B and hemophilus influenza. The first dose is applied 6 weeks after birth following 2nd and 3rd doze after 28 days each consecutively.

**Vaccine for measles:** This vaccine is applied after completion of 9 months.

**TT (Tetanus toxoid):** This is a protection from tetanus. All women from the age of 15-49 and children who had convulsion after DPT/ pentavalent application need this vaccine.

<b>Task - 1</b> Show in chart the preventive vaccines with the name of disease.
---

## Exercise

### Multiple choice questions:

1. What is the normal body temperature?
  - a) 97° F
  - b) 97.4° F
  - c) 98.4° F
  - d) 100° F.
2. What are the causes of rabies and plague?
  - a) Insect bites
  - b) Infected food
  - c) Polluted water
  - d) Animal bite (dog, cat, jackel, and rat etc)

### Read the following paragraph and answer question number 3 and 4 :

Toma has been suffering from diarrhoea accompanied by vomiting tendency since last night. She has sunken eyes also. The mother served her glucose water as there was no saline packet. As there was no improvement the next door aunty took her to hospital.

3. **Toma faced deterioration because of the following:**
  - a. Glucose, pure water, sodium chloride, sodium citrate and chlorin.
  - b. Glucose, water part, potassium bicarbonate sodium chloride.
  - c. Sodium citrate, pure water, glucose, chlorin and water.
  - d. Glucose, water, sodium chloride, sodium citrate and potassium chloride.
4. **What could happen if the aunty would not have taken her to hospital?**
  - i. Dangerous rise of water in the body.
  - ii. Drying of tongue and lip.
  - iii. Unconsciousness.

### Which one of the following is correct?

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

**Creative questions:**

1. Working woman Asia works from 9-5 p.m in her work place. Her 5 years old daughter Tuli is physically weak. She has been suffering from fever for 2-3 days. After returning home Asia noticed her daughter's convulsion with abnormal facial appearance with 104°F temperature. In this situation their neighbour Tahmina undressed Tuli very quickly and poured water in head and body to bring temperature under control.
  - a. What is called mother's first milk?
  - b. How many ways do our body get affected?
  - c. How could Tuli be cured before the rise of temperature? Explain.
  - d. Do you think that Tahmina's quick decision helped to bring temperature under control? Suggest.
2. Faiza a 4 years old baby has been suffering from fever for 3-4 days. She has developed rash throughout the body. She is not eating properly. The mother did not use any preventive vaccine at her completion of nine 9 months. The doctor told the mother to avoid cold as she can get attacked with pneumonia. Faiza got well with her mother's careful nursing.
  - a. How many worms do attack children?
  - b. When is the possibility of getting attacked with cold and cough?
  - c. Explain Faiza's disease.
  - d. The mother's careful nursing helped Faiza to get well from the disease.- Analyse

## Chapter- Six

### The children with special needs

All children are not alike. Some of them are different from others physically, mentally and intellectually. Children who need special education, care and service are the children with special needs. They are the retarded, the autistic and the gifted children. This chapter deals with autistic and gifted children.

#### Lesson 1 and 2-The autistic children

Do we see the same behaviour in all children? The answer is negative. As for example, some children welcome the guests of home very spontaneously, talk freely and make friend easily. But some on the other hand avoid people with fear. These may seem normal. But when a child has many



abnormalities in behavior it exceeds acceptability and is regarded as problem behaviour. The cause of this inability is not clear to all. Despite normal eye sight they cannot make eye to eye contact or cannot make people to understand their wishes. The area of these inabilities is very wide. The intellectual and behaviour limitations make them autistic.

Autism is not a mental disease. It is a developmental disability and neurobiological disorder. The cause of autism is still unknown. Boys are more vulnerable to this disorder. The ratio between girls and boys is 1:4. The number of autistic children in the whole world including Bangladesh is increasing day by day. 2nd April is celebrated as world autistic day by UN.

#### Characteristics of autism:

The symptoms of autism cannot be surely identified. The child suffers from developmental lack due to autism problem starting from birth. The exposure time is from 1.5 years to 3.

Autism hampers development in 3 ways :

1. **In social interaction:** In this type lack of interest and curiosity is prominent with no understanding of other's behaviour.

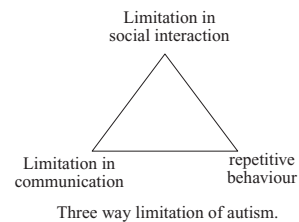
2. **In communication:** Retarded speech development and failure to communicate with others.
3. **Pattern of behaviour:** Repetitive behaviour; doing the same thing repeatedly.

**Social interaction-** The limitations that are found in this care are-

- The autistic children can not make any eye contact with parents or other close relatives. This disability is found in almost all the autistic children.



Autistic child



- When we call a child by his name, he does not make any response. This may happen due to his inability to understand it.
- He is reluctant to take part in any matter that provoke joy and merriment . For example, we may say that when a normal child get any new toy, he shows it to others, the autistic children does not show any emotion and passion though they may have interest to it.
- The normal children like to get love and affection from others but the autistic children are disinterested to it. They don't like the association of others.

**Communication-** The limitations in this field are-

- A normal child of 2-3 years can produce different sounds unlike the autistic children.
- Even a child of 3-5 years can not utter a sentence of 2-3 words. They express their demands in 3rd person narrative method. If his name is Asif, he will say "Asif khabeya"
- They utter few words from any rhyme always. For example- Tai Tai, Mama Jai, Dud Khai, Lathi Palai, Aai Chad Tip Ja etc. They have a tendency to utter the same word or group of words repeatedly. Parents forbid them to do so. But they don't follow the advice rather they get furious or angry.

**Behaviour-** The dissimilarities in this field are-

- The autistic children do the specific behaviour again and again such as- the swing of body or finger, keeping toys in the box or taking out the toys from the box. They pass a long time in doing this type of work repeatedly.

- Many autistic children can not hold a pencil in proper way, they hold it in the grip.
- They like to maintain the routine in daily work. If they fail to wash hand and face before going to bed according to habit, they begin to shout. For such kind of reaction we may call the autistic children obstinate. He feels uneasy out of their house.

□ • 25% of the autistic children can have convulsion

All other symptoms so far stated may not be present among all children at a time. But long time symptoms should not be ignored. Special doctor should be consulted. The most important point is that the child needs to have the opportunity to mix with the peer group. Through this process it is easy to find out any abnormality whatsoever. Rapid identification can help relating the autistic to education programme. The sooner it is identified the quicker it is possible to develop behaviour through special education and training.

Society has many misconceptions about autism. But we should know the reality. Some people think that it is curable. But the reality is that it is a life long inability problem. The only way to reduce it is intimate attendance with care, proper cooperation with special education by which he/ she can be made self dependent at maturity.

Sometimes it is felt that these children have latent talents. But this is only an exception. 20-30% of the autistics do not have intellectual ability. This type is called *aspargar syndrome*. Many of them show skill in mathematics like normal children. But their main problem is that they cannot use their conversation in social communication. They do not have the capacity of asking questions and replying to answers. Moreover they cannot make any comments even.



Drawing of a student of autism school



Teaching in autism school

There are special schools for autistic children. These schools arrange suitable professional training for the autistics in addition to normal schooling. The main objective of these schools is to lessen their inability slowly through close attendance and care.

13 years old Adil is a student of autistic school. His mother emphasizes on what he can do ignoring his inability to other works. She thinks that Adil has no problem. He can do the daily works quite well. He can bring the guests from five storied building to downstairs with key back and forth. Adil tries to make his mother understand what she says. These instances are the inspiration for a Adil's mother for which she thinks that her son is a normal child. Adil's mother is very satisfied with his performance. The mother's firm mental satisfaction is the source of inspiration for all autistic family.

We all have lack of awareness about autism and for this reason many parents have to face problems. In many social functions or in functions of relatives people get disturbed from the restless behaviour of the autistics. They are neglected and deprived of enjoyment. The guardians become helpless with loveless comments like 'you should not have brought this mad child'.

We should all be sympathetic toward the autistics on humanitarian ground. Let us stand by the side of the autistic family and create public awareness for cooperation.

**Group work- 1** Make a list of autistic symptoms in a group of 3

**Work- 2** What should be your behaviour with an autistic child? Write

### **Lesson- 3- The gifted child**

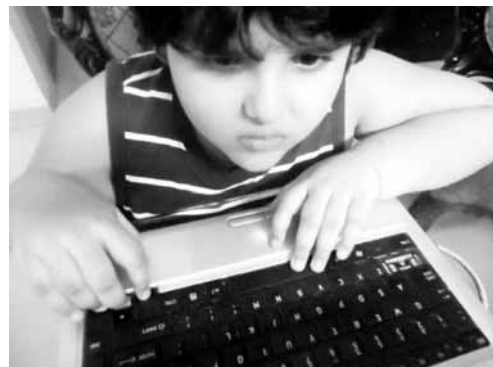
Some children show remarkable competence in one or more fields in comparison with others. These children are gifted children. They prove their high standard and skill in academic education, literature, art, leadership, research or in any other field. They are also included in the category of special need children. In order to develop highest degree of creativity special opportunity needs to be provided.

**Characteristics of the gifted child:**

1. There is no physical difference between the gifted and the same aged children. Meritorious child does not mean a child with books and spectacles. It is difficult to identify the gifted from the same age groups.
2. Intelligence: Intelligence can be measured by comparing mental age with chronological age. The unit of this measurement is called intelligence quotient or IQ. When this IQ is below 70 or more the child is intellectually retarded and a child with 100 IQ is a child with normal intelligence. When the IQ is 130 or more that child is regarded as talented or gifted.
3. The gifted has more mental ability. They can solve problems and have the power of questioning. They have very early language development with rich vocabulary. These children learn many things from observation, examination and securitization.
4. They show remarkable success in education and examination. Attentiveness with strong memory are their qualities which help in easy and quick learning. They have the power of understanding the higher class lessons.
5. The gifted are creative no doubt. They can invent and think new ways. The thought process is not normal. It has uniqueness with individuality. They have the innovative power in solving any problem whatsoever.
6. Sometimes the gifted children show their special ability like leadership and strong self confidence in social fields also.



4 years old Bangladeshi genius-Rupkatha



Youngest computer programmer



Proper care is needed for the child with the stated characteristics. Without special care and enriched environment the talent with which he is born does not develop properly.

**Steps to be followed for the gifted child**

- Opportunity should be created for the gifted to find enjoyment and interest in education.
- Provision for higher class teaching for the gifted can be made to make the text book speedy, enriched and colorful.
- Opportunity for developing intellect need to be created where necessary. This should be applicable in all fields including music, literature, sports and games and painting.
- Multiple opportunity needs to be created for acquiring knowledge in every field.

**Task- 1** Make a list of the characteristics of the gifted child.

## Exercise

**Multiple choice questions:**

1. Which is the world autistic day?
  - a) 2nd February
  - b) 2nd April
  - c) 2nd June
  - d) 2nd July
2. The gifted children are:
  - a) Those who have normal intelligence
  - b) Those who are affectionate to little ones
  - c) Those who speaks logically
  - d) Those who do not mix with others.

**Read the following paragraph and answer question number 3 and 4**

Sajal and Babul are two brothers. The younger Sajal likes solitary play. He does not make any eye to eye contact. He has problems in conversation with parents and others. He is not developing normal behaviour.

**3. Sajal is facing problems in developing social contact because :**

- a) He does not pay attention to others.
- b) He laughs at known face without recognition.
- c) Expresses hunger by gesture to mother.
- d) Starts playing with others with playthings.

**4. The proper arrangement for Sajal's parents :**

- i) They will try to establish Sajal's relationship with others.
- ii) Explore his talents.
- iii) Admit him in a special school.

**Which one is correct?**

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

**Creative questions:**

1. 8 years old Rony, son of Mrs. Rehana is not doing well in school performance. He does not answer to his teacher, repeats the same talk and lags behind in play and games also. The teachers complain about it off and on. Mrs. Rehana takes care of her son by herself. In spite of all these her son does not show any interest in learning anything. The doctor advised special education and care for the son.

- a. What is the name of the problem of the autistic child?
  - b. What is meant by children with special needs?
  - c. Why did Rony lag behind in comparison to others? Explain
  - d. Do you agree with the statement that Rony can develop his ability with the cooperation of all the family members?– Justify.
2. Carpenter Rashid's 6 years old son Romel can memorise his lesson within a very short time. He also Knew the names and use of his father's instruments out of curiosity. Inspite of all disciplinary techniques the boy argues logically with his father. The house owner took the responsibility of taking special care of the boy by himself.
- a. What is the age of autistic symptoms?
  - b. Explain the main characteristics of the autistics
  - c. Under what category of children with special needs be Romel identified? Explain
  - d. The house owner's cooperation can help develop Romel's talent-Evaluate the statement with justification.

## **Chapter- Seven**

### **Self defence in different unfavourable situations**

#### **Lesson 1-Drug abuse**

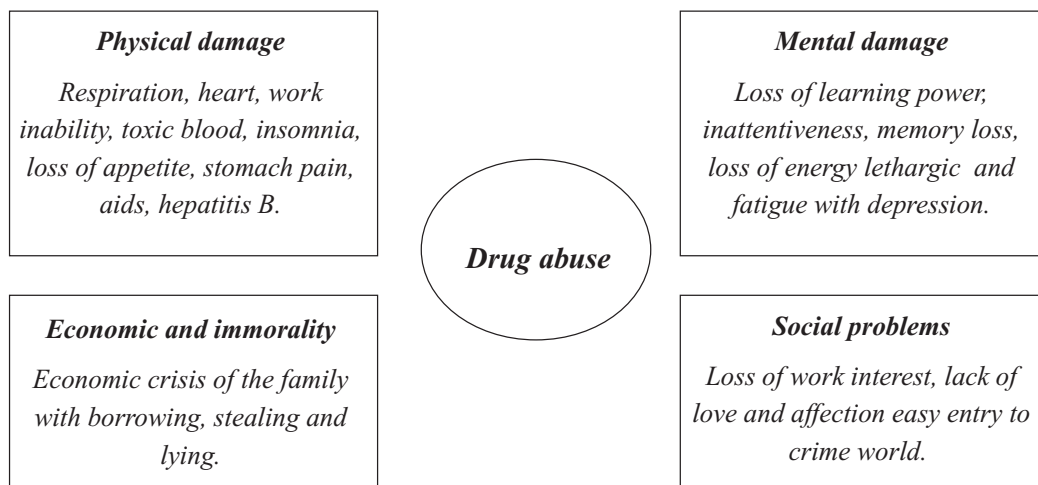
We all like favourable environment. Good company of friends, teacher's inspiration and praise for school performance with all good things go with favourable situation. But a harmful situation which does not bring any fruitful result and not helpful for our progress is surely an unfavourable situation. Bad company, delinquents harassment and early marriage are all unfavourable situations. These are all sad experiences which we do not want.

Drug abuse is a world wide problem including Bangladesh. Drug is some kind of chemical substance the use of which brings harmful effects for body and mind. It creates addiction in the user and the quantity increases step by step. At sometime when the use becomes obligatory that condition is called addiction. Opium, heroin, fensidyl and yaba are all intoxicated drugs.

Childhood is the age of inquisitiveness. Many start using this out of curiosity. Sometimes it comes as a rescue for frustration. In most of the cases the adolescents are involved with delinquent activities with the result of drug addiction. The addicted adolescents want company of others and this way many children go astray becoming addicted. In the primary stage they cannot understand the harmful effects, but when in course of time they face the danger it becomes difficult to reject.

The drug users get sick gradually with final touch of death. The intoxication destroys the individual, the family and ultimately the society. The user suffers from the problems like brain damage, heart, lungs, complications in normal reproductive function, mental health problem, educational inability and disturbed family relationship.

Being failure to get money from parents, they become involved in various unsocial works like stealing, hijacking and other unsocial works. The harmful effects of personal and social life are-



In view of the harmful effects you all should remember that it must be avoided. Take a vow to spread this message to your locality, community and to peer groups.

Frustration and depression are part of life but nobody should surrender to it. Let us say 'No' to drug which can be the best way to protect ourselves.



**Task- 1** Write the interrelationship of the various harmful effects of drug.

**Task- 2** Prepare some slogans to control drug addiction.

## Lesson 2- Carefulness in friend selection

Sakib is my best friend. I trust him and discuss everything with him which I know he will not disclose to others. We help each other in distress. We exchange our feelings and we don't hurt each other. These are the characteristics of a good friend.

Definition of friend differs in different ages. In early childhood playmates become friends. Classmates are also friends sometimes. But in adolescence or in middle childhood friendship means trustworthiness, cooperation with intimacy. They have same interest and choice with faithfulness. They do not leave one another in distress. They love each other. A good friend helps in proper development with positive attitude. Bad friend destroys life and makes it a hell. So, beware of bad company in selecting friends.

**Task- 1** Name two of your class friends and write their qualities.

How does childhood friend help us?



Friendship

Friendship gives us company inspiration in work and instigation. We can exchange our necessary things and be careful to shortcomings of each other through friendship. I can judge myself in comparison with others through friendship. Friendship also tells me whether I am doing the correct thing.

### How to know good and bad friends

Good friend	Bad friend
<ul style="list-style-type: none"> <li>• Studious</li> <li>• Truthful</li> <li>• Disciplined</li> <li>• Well behaved</li> <li>• Construction work</li> <li>• Interested in fruitful work</li> <li>• Scientific talk about sexual change</li> <li>• Nonsmoking and resistant to drug.</li> </ul>	<ul style="list-style-type: none"> <li>• Inattentive</li> <li>• Lier</li> <li>• Disobedient in school</li> <li>• Quarrelsome</li> <li>• Problem creator</li> <li>• Dishonest in work</li> <li>• Slang discussion</li> <li>• Smokes and inspires others in this</li> </ul>

Friendship with opposite sex needs limitation. Excess of free mixing may bring temporary enjoyment.

#### Task- 2 How to know good and bad friends

### Lesson 3- Media

Media means radio, television, news paper on line service through computer etc. Media enhances our knowledge, supplies huge information within short time.

Watching nonstop TV is harmful. It hampers studies and other important works. TV can give real experience no doubt. The programmes on education, social and children's programmes help to increase intelligence with social skill. On the other hand crime pictures with unsuitable programmes have harmful effects.

Some programs in TV give us real experience. For example- the program on beasts and animals gives us a clear conception of their life style. By reading books, we learn about them, but it is as if the practical knowledge of that learning. Again some programs on TV become harmful for us. Such as- terrorism hijacking, taking drugs etc. The same kind of habit is contaminated in our mind for enjoying such type of program. So, watching TV must be controlled. We have to select some programs for enjoying. The programs which are educative or related to social affairs or suitable for the children, increase our intelligence and social adjustment.

- More can be learnt by watching TV with family members. Subject matter becomes clear with discussion.
- Learning lessons in TV room is not appropriate. Attention is distracted.
- Limited time for TV watching is less hampering for students.



Knowledge gain from with elders

**Task - 1** What steps can you follow to avoid harmful effects of TV.

Computer is another medium of media. It has many uses in education, treatment, weather, environment and other fields. But if it is not properly used, this valuable machine also becomes harmful. Website and internet is the source of huge information. We get latest information from the website which enriches our knowledge.

Computer is also used as a play instrument. But too much of playing creates addiction. Children may suffer from health hazard.

- ☐ • The body becomes bulky for longtime play.
- ☐ • There can be eye problems due to long staring.
- ☐ • Sitting long time in the same position may create shoulder and back pain.
- ☐ • Daily life knowledge becomes less.
- ☐ • Outdoor playtime becomes short.

Children sometimes enter into the prohibited part out of curiosity. This brings moral degradation. Facebook is another source of getting rapid information.



use of computer



But too much time spent in it is harmful for which relationship with parents becomes conflicting. The best use of computer should be in education.

**Task - 2** Prepare a list of advantages and disadvantages of using computer.

#### **Lesson 4- Sex abuse**

Sex abuse is very pathetic. There is abundant picture of sex abuse all over in different forms. Now this is very urgent to save ourselves and others from this antisocial activity. We need to know the ways to stop this unexpected harassment. This chapter is very important to create awareness in the society.

Sexual abuse includes sexual talk. Indecent indication, filthy gesture, eve teasing and disturbing others improperly. Sometimes attraction to opposite sex may lead to dangerous consequences.

Rasheda is visiting her relative after final examination. She is enjoying the place joyfully. She goes out to roam with next door neighbour brother where she spent the whole afternoon by enjoying natural scenery, boat rowing and sugarcane field. It was almost evening then. Suddenly the boy came very close to Rasheda holding her hand. Rasheda rescued her forcibly and walked away. This incident always haunts as a nightmare for which she gets alarmed with fear. Did you ever think that you can also face the same danger? The reactions of sexual abuse are :

- ☐ • Reminds the incident with fearful experience.
- ☐ • Mental stress causes restlessness for repression.
- ☐ • Sometimes it is shameful and insulting to family.

**Task - 1** What should be done in sex abuse? Write.

In the context of our country, the adolescent girls are more vulnerable to sexual harassment. They may be harassed by the vagabond boys of the locality or by their class-mates. But this harassment may occur by close relatives, familiar persons, any aged persons including the class mates.

In order to save ourselves from these antisocial activities we should be aware of the followings:

- ☐ • Staying alone in home should be avoided
- ☐ • Dresses should be polished and chaste
- ☐ • Avoid any known or unknown body touch
- ☐ • Avoid going out alone with known or unknown person
- ☐ • Inform immediately about such incident to parents.

**Early marriage :**

There is another dreadful and shocking picture of sexual abuse. Sometimes children are abused by elder family members. The parent keeps the child alone with him in good faith and such incidents happen. Sometimes the male child is attracted by the male adult in their secret organs. Children get frightened by these and cannot disclose the matter out of fear. We should stand unitedly against these mischief mongers. It is the duty of all parents and society to create a safe environment.

**Task- 2** What steps can be taken to resist sex abuse and harassment?

**Lesson 5- Early marriage, Dowry****Early marriage:**

According to UN declaration all children from birth to 18 years are called children. No girl child should get married before this age. The marriageable age for boys is 21 years. Children having less than these ages fall in the category of early marriage. The main reason for early marriage lies in the fact of poverty, illiteracy and birth registration. Moreover early marriage is also due to socio economic condition with safe custody for the girl child. The same is the case with boys also. Boys below 21 years are not eligible for marriage.

**Why is early marriage harmful for girls?**

- Pregnancy complications with the hazard of having underweight children.
- The death rate of these children born from under aged mother is high with the high percentage in the first year.
- The female body is not prepared for delivery if they are less than 18 years. They face premature birth, high blood pressure, convulsion, anaemia, complicated delivery which many lead to death of both.

The early marriage of both male and female child may hamper or stop their education. When they give birth child, they have to perform the duty of parents. This creates mental pressure and monetary crisis. So we have to prevent any marriage between a boy of below 21 and a girl of below 18 years must refuse this type of proposal for myself and must hinder for others also. The guardians must be made aware of the bad effects of early marriage.

<b>Task - 1</b> Make a list of harmful effects of early marriage
--

**Dowry:** In a marriage there are two parties. The system of offering gifts both by bride and bridegroom parties has long been traditionally continuing. But, when one party obligates the other for valuable resources, money and other things that is termed as dowry. It can be called demand also. In our country this burden of dowry is mostly met by bride's family. The 1980 dowry prohibition act can clearly states penalty of 1-5 years imprisonment or fine of both. In Bangladesh the main reason for accepting dowry is economic need and unemployment.

**Harmful effect of dowry:** It creates problems in bride's family for meeting demand. They have to sell their land, draw money from bank deposit and borrow from others which make them penniless. So everybody should be conscious about the harmful effects of dowry.



Marriage in exchange of dowry

It should be the duty of all irrespective of boys and girls to raise voice against dowry. Attempts need to be made to stop it for all time.

**Task - 2** what actions can you take to stop dowry? Write.

## Exercise:

### Multiple choice questions:

**1. What is the age of inquisitiveness?**

- a) One year
- b) Childhood
- c) Young age
- d) Old age.

**2. What type of social problem is created in drug abuse?**

- a) Deterioration in work power
- b) Deterioration in learning
- c) Economic crisis in family
- d) Easy entry to crime world.

**Read the following paragraph and answer question number 3 and 4.**

Javed was a growing up adolescent. Recently he started forming group and developed liking to friends. He used to return home late. When he is asked about lateness, he got furious. He learnt from religion teacher the bad effects of drug and also the qualities of good friend. He knew the duties to parents. He also had the knowledge that too much friendship without need can be harmful. Now he is careful about his movement.

**3. Who will be affected by the harmful effects of drug?**

- a) Self class and all classes                      b) Relatives
- c) Locality and sibling                              d) Locality, area and friends

**4. Religion teacher's lesson will make Javed aware in the following way:**

- i. Not to mix with bad groups
- ii. Consequence of health hazard
- iii. Friendship with opposite sex.

**Which one of the following is correct?**

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

**Creative questions:**

1. 10 years old Kamal, a student class X is the only son of a middle class family. Both the parents are busy service holders. He goes to coaching with his friend Ejaj. Recently he returns home late, does not want to eat, inattentive in his learning with a feeling of sickness. He does not speak the truth. The parents are worried about his behaviour.
  - a. What is unfavourable situation?
  - b) What is drug abuse?
  - c) How did Ejaj's friendship hamper Kamal's studies? Explain
  - d) Kamal can get rid of the situation by selecting a good friend. Do you agree with the statement? Justify.
2. Zulekha is a student of class vii of a village school. Her grand parents started preparation for her marriage. The bridegroom party placed huge demands. But Zulekha's father came to know the harmful effects of early marriage from TV and decided not to give his daughter's marriage.
  - a. What age has been declared for being a child by UN Charter?
  - b. Why do we get news easily from computer?
  - c) Which UN right of the child has been disobeyed by grand parent's attempt? Explain
  - d) Zulekha's father's decision saved Zulekha from physical damage – Do you agree? Justify

**3. Who will be affected by the harmful effects of drug?**

- a) Self class and all classes                      b) Relatives
- c) Locality and sibling                              d) Locality, area and friends

**4. Religion teacher's lesson will make Javed aware in the following way:**

- i. Not to mix with bad groups
- ii. Consequence of health hazard
- iii. Friendship with opposite sex.

**Which one of the following is correct?**

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

**Creative questions:**

1. 10 years old Kamal, a student class X is the only son of a middle class family. Both the parents are busy service holders. He goes to coaching with his friend Ejaj. Recently he returns home late, does not want to eat, inattentive in his learning with a feeling of sickness. He does not speak the truth. The parents are worried about his behaviour.
  - a. What is unfavourable situation?
  - b) What is drug abuse?
  - c) How did Ejaj's friendship hamper Kamal's studies? Explain
  - d) Kamal can get rid of the situation by selecting a good friend. Do you agree with the statement? Justify.
2. Zulekha is a student of class vii of a village school. Her grand parents started preparation for her marriage. The bridegroom party placed huge demands. But Zulekha's father came to know the harmful effects of early marriage from TV and decided not to give his daughter's marriage.
  - a. What age has been declared for being a child by UN Charter?
  - b. Why do we get news easily from computer?
  - c) Which UN right of the child has been disobeyed by grand parent's attempt? Explain
  - d) Zulekha's father's decision saved Zulekha from physical damage – Do you agree? Justify

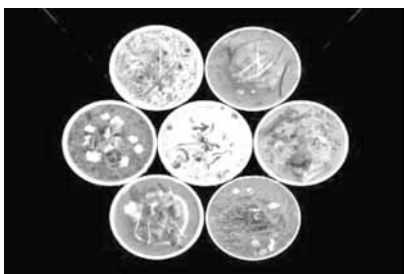
## Chapter-Eight

# Food planning

### Lesson 1 - Food planning- Rule of selecting menu

Planning is essential to fulfill any target. Menu is the written chart of serving delicious balanced food. Menu must be decided to ensure the daily balanced food. Besides, the food of a child patient, invited guest should be served according to the pre-planned menu. Different institute like-hostel, hospital, hotel and restaurant should follow a menu. A good menu as well as the color, appearance and proper distribution of foods allure our hunger. A planned menu can fulfill the necessity of the required nutrition. The major two things for preparing a menu are:

- i) the hunger of the eater.
- ii) facilities of cooking.



Planning menu for balanced diet

Moreover, we have to be careful to the following things also: age, gender, weather, season, environment, experience of the cook, division of work, usage of excess food, budget, utensils and equipments, use of recipe.

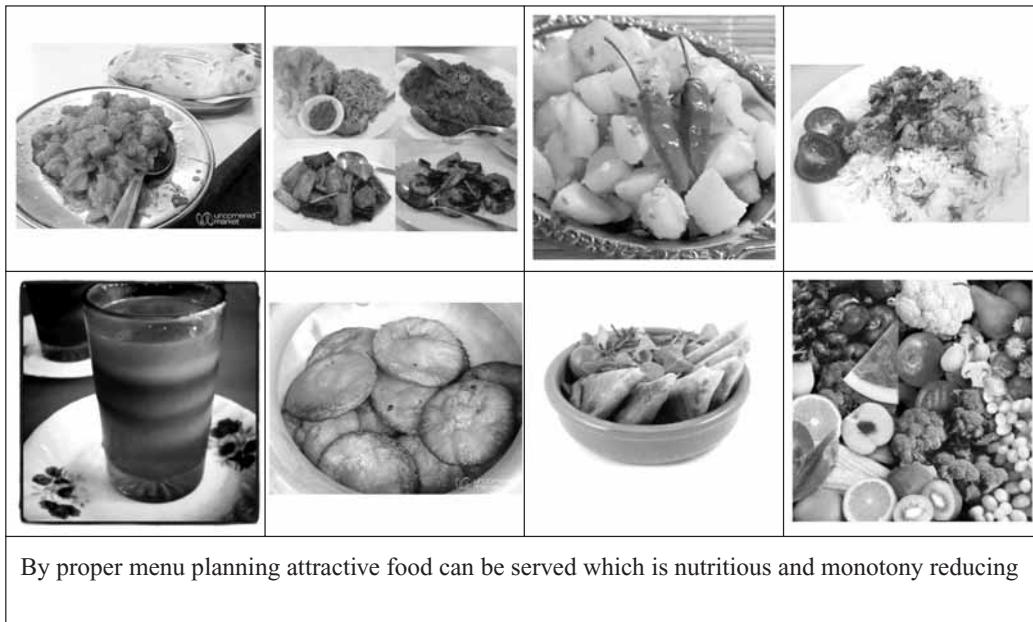
#### Importance of making menu:-

- to serve balanced food.
- to serve the meal attractively.
- to remove monotony in food.
- to enhance hunger.
- to serve more balanced food in less costs.

**Rule of making menu:** The essential things for making a menu for balanced diet are as follows:

- daily meal must be selected from five basic foods.

- meal for every session of a day should be taken at least from five basic foods.
- animal protein must be included at least in a single meal of the day.
- color, smell, taste, appearance etc. of a food have to be considered.
- restrictions for different caste and religions should be followed.
- personal and physical limitations such as- hard food for old age, hot food for the baby, selection of food bearing allergic element for the allergy affected persons.
- menu should be selected to serve food in time saving fuel and time in cooking.



- outward appearance of food must be lovely to increase hunger.
- to make a menu the cost of food should be considered. if we spent 25% for fish, meat, egg and dal, 20% for milk, 20% for fruits and vegetables, 20% for rice wheat and biscuits, 15% for oil and sugar of the total cost, we will get a good menu for balanced diet.
- to avoid monotony in food habit, various types of food should be placed in the menu.

**Tast-1** which things will be considered for making a menu for your family?



## Lesson 2-1000 days nutrition (mother's womb to till 2 years )

The nutrition that a child gets from mother's womb and up to two years after his coming into this world is known as 1000 days nutrition. The demand for nutrition in this period may be classified into two stages.

**1000 days nutrition=270 days in mother's womb before birth +730 days after the birth of a child.**

1000 days is one of the best time for the future foundation of a child's good health. It will help to build up the physical and mental health of a child as well as a skilled and meritorious nation. Lack of nutrition hampers a child's growth and development. Such child also suffers from mal-nutrition always. So, 1000 days nutrition is very important for a child's normal and proper development.

**Nutrition before birth:** A child passes about 270 days in mother's womb before birth. This time, a child depends on the nutrition of mother totally. A mother's nutrition affects a child's nutrition directly. The nutrition that a mother gets from her daily food is also absorbed by child's body. A mother needs excess nutrition as a child gets nutrition from its mother. So, a child's nutrition can be ensured by giving enough food to its mother to fulfill the excess demand.











The baby gets nutrition from the mother in pre-natal

To fulfill the demand of a child bearing mother for 270 days during the time of pregnancy:-

- have to give a little more food three times a day than usual.
- have to give eggs, fish, meat, liver, green vegetables, yellow vegetables, fruits and oil or fried food more than usual.
- have to give light Tiffin two or three times a day in addition to the daily meals.
- have to take calcium, folic acid or iron tablet along with the meal.

**Nutrition for next 2 years of birth:** The child has to be fed the breast for first 6 months after birth. No food except breast milk is allowed in this period. Even water is not permitted to drink. After 6 months, the demand for nutrition increases, so different nutritious food should be given with breast. In this period, physical growth happens rapidly. Even brain development also occurs. So we must be careful to the demand of nutrition of a child.

Time	Food for baby for 730 days	
180 days after birth (6 months) 		<p>a baby must be fed mother's breast just within an hour of birth at the rate of five times at day and three times at night.</p> <p>honey, sugar-water, water, oil or any kind of milk is prohibited for a child except breast feeding.</p> <p>a baby has to breast-feed 8-12 times a day after every 2-3 hours.</p>
181 - 240 Day (7-8 Month) 		<p>a baby must be fed 1.25ml family food after making it soft and liquid 2-3 times a day along with breast-feeding.</p> <p>everyday, fish or egg or meat or liver of hen, gravy dal, yellow vegetable and fruits, food cooked with oil and food prepared by cow milk must be given.</p>
241 - 330 Day (9-11 Month) 		<p>a baby must be fed 1.25ml family food after making it soft and liquid 2-3 times a day along with breast-feeding. he also must be given nutritious and delicious tiffin 1-2 times a day.</p> <p>everyday, fish or egg or meat or liver of hen, gravy dal, yellow vegetable and fruits, food cooked with oil , food prepared by cow milk and other nutritious food must be given.</p>
331 - 730 Day (12-24 Month) 		<p>fish or egg or meat or liver of hen, gravy dal, yellow vegetable and fruits, food cooked with oil , food prepared by cow milk and other nutritious food along with breast-feeding must be given every day.</p> <p>3 bowls food each of 250ml have to be given 3-4 times a day and delicious tiffin 1-2 times a day along with breast-feeding. This time, we have to encourage a baby so that he himself can eat any food without the help of others.</p>

**Task-1** Show the nature of food of child for one and a half years.

### **Lesson 3- (food for a baby of 4-6 years)**






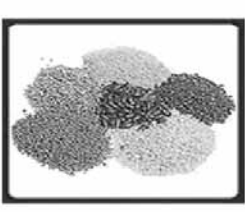


4-6 years children are called pre-school going children. The physical growth of this stage is less fast than infant age. The children go to school and start to play in this stage. So, energy is lost for the movement of the different parts of the body. The demand for their nutrition due to the build up of their muscle, teeth, bone and blood is more than the aged people.

#### **The importance of nutrition for the pre- school going children (4-6) :**

- To maintain the normal growth, a child needs sufficient food containing protein and calorie.
- Food containing carbohydrate and fat is needed as a child needs enough energy for normal activities and sports.
- Food, rich in sufficient calorie different vitamins and mineral salt play a vital role to increase the disease protection power.
- Calcium and Vitamin D is essential for the formation of a child's teeth and bone.
- Food rich in vitamin A, B and C play a vital role to keep skin and eye healthy.
- To form blood cell, iron and folic acid are required.

So, it is clear to us that for height weight, health, reading- writing and sports of a 4-6 years child, the presence of enough calorie of 6 vitamins in child food is essential. So, to get enough calorie from food, a child's food must be selected from each group of 6 basic foods. The things below should be maintained to make a list for child food. such as-

- They must be given major meals 3 times and nutritious tiffin 2 times a day. This tiffin may be given first when he is in school and for the school time when he is at home. Then, he will not face lack of nutrition.
- Vegetable and animal protein must be ensured in 3 meals a day.
- There must be color vegetable, sour fruits and seasonal fruits in daily food list.
- Liquid food, rich in calorie has to be taken in each meal of a day.
- We have to be careful in taking excess sweets and fried foods. Those who don't do physical labour or don't take part in sports should avoid these types of food. Otherwise, in childhood they may face the problem of obesity.

			
			
Food for 4-6 years children			

A list of one day food for 4-6 years child is given below:-

different food group	amount of serving	serving times
crops and crops equivalent food	half cup rice, one bread, a piece of loaf	3-4
protein food	an egg, half-cup boiled pea, a piece of fish or meat, one cup gravy <i>dal</i> and 1/3 cup nuts.	2-3
vegetables	one cup vegetable-salad, half-cup boiled curry, half-cup boiled vegetables, a potato.	3-4
fruits	a medium banana, orange, guava, mango and half-cup of slice fruits.	3-4
milk and milk equivalent food.	one cup card or milk	3-4
oil, ghee	oil and ghee	30-40ml. (6-8 tea spoon)

we have to take less sugar, molasses, different sweets and salted food. We should remember that home made food items are more nutritious and healthy than those bought from outside.

**Task-1** Make a list of food suitable for 4-6 years children.

### **Lesson 4- food for a child of 11-15 years**

11-15 years children are called school going children. The physical growth of this stage is very fast. This growth is more to female children than male children. So, the demand of nutrition is more to the female children. The demand of calorie, protein, vitamins and mineral salts increases due to their increased movements. Energy is lost for the movement of the different parts of the body in sports and action. The demand of nutrition increases due to the build up of muscle, teeth, bone and blood of the school going children.

#### **The importance of nutrition for the school going children (11-15 years) :**

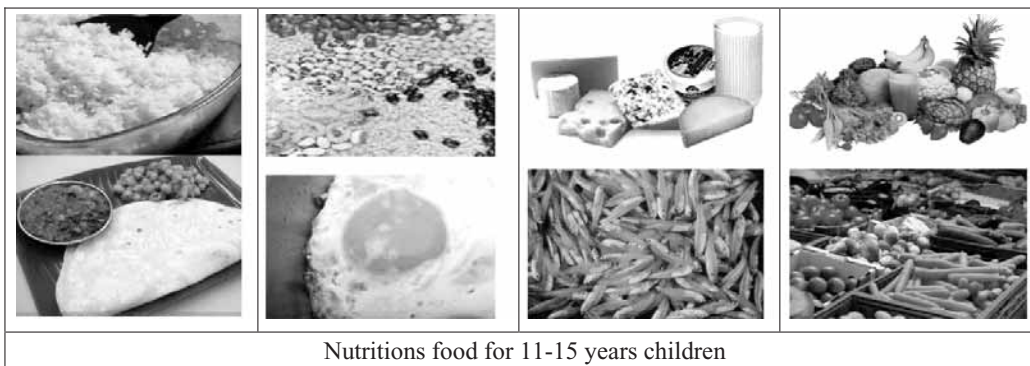
- To maintain the normal growth, a child needs sufficient food containing protein and calorie.
- Food containing carbohydrate and fat is needed as a child needs enough energy for normal activities and sports.
- Food , rich in sufficient calorie different vitamins and mineral salt play a vital role to increase the disease protection power.
- Calcium and Vitamin D is essential for the formation of a child's teeth and bone.
- Food rich in vitamin A, B and C play a vital role to keep skin and eye healthy.
- The female children need more iron and folic acid than male children because female children lose huge blood every month due to means.

So, it is clear to us that for height, weight, health, reading- writing and sports of a 11-15 years child, the presence of enough calorie of 6 vitamins in child food is essential. So, to get enough calorie from food, a child's food must be selected from each group of 6 basic foods. The things below should be maintained to make a list for child food. such as-

- (a) They must be given major meals 3 times and nutritious tiffin 2 times a day. This tiffin may be given first when he is in school and for the school time when he is at home. Then, he will not face lack of nutrition.
- (b) Vegetable and animal protein must be ensured in 3 meals a day.
- (c) There must be colour vegetable, sour fruits and seasonal fruits in daily food list.
- (d) Liquid food, rich in calorie has to be taken in each meal of a day.

(e) We have to be careful in taking excess sweets and fried foods. Those who don't do physical labour or don't take part in sports should avoid these types of food. Otherwise, in childhood they may face the problem of obesity.

(f) at least in one meal a day, we have to take vegetable or animal protein.



**A list of food for 11-15 years child is given below:-**

different food group	amount of serving	male (serving)	female (serving)
crops and crops equivalent food	half cup rice, one bread, a piece of loaf	8-9	6-8
protein food	an egg, half-cup boiled pea, a piece of fish or meat, one cup gravy <i>dal</i> and 1/3 cup nuts.	3-5	3-4
vegetables	one cup vegetable-salad, half-cup boiled curry, half-cup boiled vegetables, a potato.	4-5	3-4
fruits	a medium banana, orange, guava, mango and half-cup of slice fruits.	3-4	3-4
milk and milk equivalent food.	one cup card or milk	2-4	2-4
oil, ghee	vegetable oil , ghee, sugar, molasses and different sweets.	less calorie	less calorie


we have to take less sugar, molasses, different sweets and salted food. We should remember that home made food items are more nutritious and healthy than those bought from outside. Seasonal vegetables and fruits are more nutritious and healthy. So, the school going children must be careful in taking these food items.

**Task-1** Make a list of food suitable for 11-15 years children.

## Lesson 5- Food planning for obese child

The obesity of a child has been marked as a serious public health problem in the 21st century. This problem is quite available in the countries of lower and middle income. This problem is also increasing in our middle class family.

**What is obesity:** The abnormal excessive weight of our body is known as obesity. There is an upper and lower level of normal weight in every age. When the weight crosses the fixed level, it is called obesity.



**Causes of obesity:** The main cause of obesity is over eating habit of tendency. If we take more calorie than our need and work less and lead an uncontrolled life, this excess calorie will remain in our body as fat. This weight increase gradually the problem of obesity will arise.

<p>obesity is caused by taking more food need</p>	<p>To take food containing excessive calorie and work less</p>	<p>increase of weight</p>	<p>increase the tendency of attack of contagious diseases</p>	<p>increase life risk</p>
---	--	---------------------------	---	---------------------------

Only taking food will not make a man healthy. To remain healthy, we need balanced diet regular physical exercise, participation in games and sports and controlled life.

**Bad effect of obesity:** The tendency of the attack of non-contagious diseases such as high blood pressure diabetes, heart- attack, heart diseases stone in liver, excessive fat in blood, cancer etc. increase with the increase of obesity. The life expectancy also decreases. The obesity in childhood is never a good symptom at all. As a result various non-contagious diseases become active more and more.

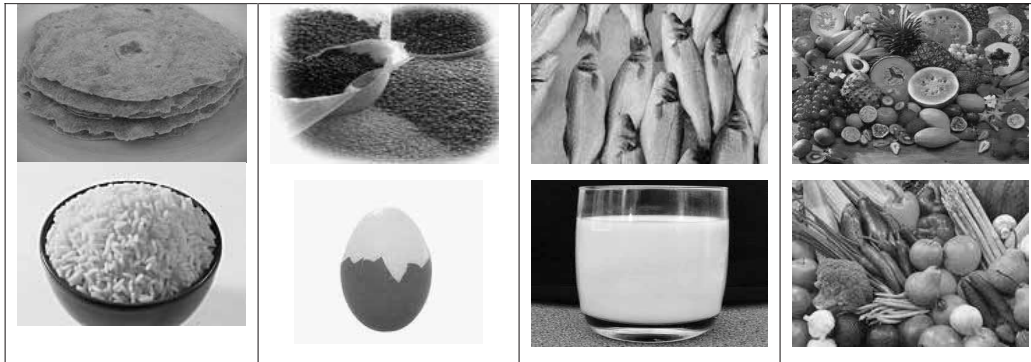
### Food planning for the obese child:

We have to maintain the following rules if we become a victim of obesity-

- Cereals and cereal equivalent food such as rice, bread, fried-rice, etc will be taken in a fixed amount of calorie. These food increase our weight. Even, we are not allowed to take some amount of *Polau*, hotchpotch, *Porata* etc. instead of rice and bread. These food are cooked with oil or ghee. So, these contain much calorie than normal rice or bread. If we have to take only these



foods, the amount of the food must be half in comparison to normal rice and bread.



obese babies can have bread, boiled egg and leafy vegetables

- In the food list for every meal, we must ensure enough calorie, vegetables, seasonal fruits and sour fruits.
- To meet up demand of required protein, we should eat *dal*, nuts, fish, meat and eggs.
- Milk is must for this list. We have to be habituated to take milk without sugar or molasses . Different sweets made of milk must be avoided.
- The food like vegetables and fruits containing less calorie should be selected for tiffin. The food containing more calorie increases the weight fast. So excessive calorie containing food such as- fried food, ghee, butter made of sugar and molasses, food made by bakery, all soft drinks, chocolate, candy, ice-cream etc. should be avoided.
- To cook vegetables, fish, meat, eggs and other foods, we have to use little oil to keep our weight under control. All deep fried foods should be excluded from the list.
- To meet up temporary hunger we have to be habituated to seasonal fruits instead of fried food, packaged food or food made by bakery.
- ☐☐☐water of green coconut or juicy fruit is better than soft drinks and bottled juice. It will help you both to keep weight under control and to save money.
- ☐☐☐To reduce the excess weight of our body, we have to take physical exercise, or do physical labour regularly. Regular exercise, labour, controlled life style, sufficient sleep and consciousness along with measured meal will reduce your weight.

**Task-1** Make list of the food that should be avoided to reduce our body weight.

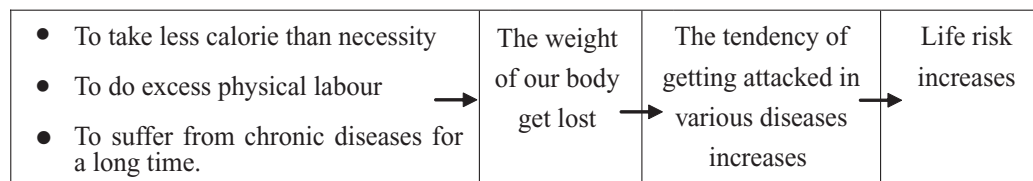


## Lesson 6- Food planning for under-weight baby

Both obesity and underweight is a problem for the baby because various physical problem may arise for this. It is quiet available in the countries of lower income. In our country, this problem is also found in the lower class family.

**What is under-weight:** When the weight of a child is less than its normal weight , it is called under-weight. Normal weight is fixed for every age. So when the weight is less than normal weight for a specific age is marked as underweight for that age.

**Causes of underweight:** To do over physical labour and eat less than necessity are the major cause of underweight. If we take less food than the necessity of our body and do extra physical labour and lead an uncontrolled life regularly, the calorie will be spent more than the calorie we take. Then the fat which is stocked in our body get broken and fulfill the demand of energy. If this process continue for a long time our body weight will decrease and we will became a victim of underweight Besides, we can lose our weight for suffering from chronic diseases for long time.



**Bad effect of underweight:** Many Problem can be seen for underweight of a person.

Waking power is reduced, Diseases prevention power decreases, Tendency of getting ill easily increase, Blood pressure goes down, power of memory decreases.

**Food planning for under-weight baby:** When a person suffers from the problem of under-weight, he must follow some rules regarding foods.

- Crops and crops equivalent food such as- rice , bread, fried-rice, *Muri* (puffed rice), etc. will be eaten of sufficient calorie. Instead of rice, bread , we can take *Polau*, hotchpotch, *Porata* etc. These food are cooked with oil or ghee. So, these contain double calorie. The people who get less calorie from other food, can take these food to raise their weight.
- There must have vegetables and seasonal fruits containing enough calorie.
- To meet up the demand of problem, we have to eat *dal*, nuts, fish, meat a and eggs of required of calorie.

- It is better to include milk and sweets made of milk in the list of food. The sweets also provide you enough calorie and different nutrition. This will help to increase baby's weight.
- The food that contains excess calorie will increase body weight rapidly. So, we have to choose these types of food as tiffin.
- Vegetables and sour fruits these will be on the list.
- We have to cook vegetables, fish, meat, eggs and other foods with excess oil to increase weight.
- We should remember that to increase a baby's weight he has to give two times nutritious tiffin along with three times regular meals.
- No meal of a day should be avoided or not be taken less food than necessary.
- Regular sufficient meal, sleep, rest and controlled life is needed to increase weight
- If the physical labours increases, the taking of food containing calorie have to increase. Otherwise, the weight of body will decrease.
- If a child's weight decreases for any disease, he has to be given proper treatment.

**Task-1** Describe what types of food have to be taken to increase the weight of an under weight child.

## Exerise

### Multiple choice questions:

1. Which food below will a child take after 6 months of birth ?
  - a) Sugar water
  - b) breast milk
  - c) packaged milk
  - d) hotchpotch
- 2) Which food should be excluded to avoid obesity ?
  - a) vegetable
  - b) rice
  - c) dal
  - d) Porata



## Chapter-Nine

# Malnutrition

### Lesson 1- Protein Calorie Malnutrition

The function of food is to supply nutrition. If we don't take sufficient calorie for a long time, if the food taken lacks in one or more than one element of nutrition, if we take food less than our necessity, the food will not be able to fulfill the demand of our body. Then various diseases due to lack of different elements of nutrition became visible in our body. The diseases caused for such situation are called the diseases of malnutrition.

The diseases for malnutrition are protein calorie malnutrition, night blindness, anemia, goiter, rickets, osteomalacia, beriberi, angular stomatitis, pellagra, scurvy etc.

**Protein calorie malnutrition:** The malnutrition from which man suffers for protein and calorie is called protein calorie malnutrition (P. C. M). In all the underdeveloped countries of the world including Bangladesh, this disease is available among the children. Generally, two types of P.C.M are found.

**i) Kwashiorkor diseases:** Normally the babies of 1-4 years suffer from these diseases. The lack of protein in child food is especially responsible for this disease.

#### **Causes of this disease:**

- a) When a mother becomes pregnant again and again, a child is given carbohydrate food instead of giving it breast milk. Thus the baby suffers from protein and as a result he is affected by kwashiorkor.
- b) If a child suffers from measles, diarrhea and he is not given nutritious food during the disease or after the disease, the baby becomes a victim of Kwashiorkor due to lack of protein in his body.

**Symptoms :**

- i) Normal growth of weight is hampered. Body weight reduces after Oedema.
- ii) Oedema of hand, leg and face
- iii) Fissuring and ulceration of skin
- iv) Loss of hair, fade hair and weak root of hair.
- v) Face swells and looks like the moon. It is called 'moonfaced'
- vi) Child becomes indifferent, and loses interest in everything
- vii) Loss of appetite.

**2. Marasmus or skinny diseases:** This disease is found in a baby of two years from its birth. Again it may attack a man at any age. The lack of protein and calorie in food causes Marasmus or skinny diseases.

**Causes:**

- a) **Insufficiency food :** Its main cause is insufficiency of food. If a baby does not get enough breast milk and he is not given complementary food, he lacks in both protein and calorie.
- b) **Contagious diseases:** If a baby affected by contagious diseases or diarrhea, don't get necessary foods, he will be a victim of Marasmus.



Marasmus baby

**Symptoms:**

- i) Baby's weight decreases 60% in comparison to its age.
- ii) Hand, leg and face looks lean and thin and the skin become shrunk. So he looks like an old man.
- iii) Become restless and hopeless
- iv) The belly looks like bawl. This condition is called 'pot belly'.
- v) Loss of appetite

**Treatment of diseases due P.C.M.**

i) A baby must be given food, rich in calorie and animal protein. He will be given less food each time but many times a day. The amount of food has to be increased gradually. If the illness becomes serious, he will be given soft food again and again. A child of two years must be given breast milk along with other outside foods. Tablets of vitamin or mineral salt must be given regularly.

ii) Contagious diseases have to be treated properly.

**Prevention of diseases due to P.C.M.**

i) A baby must be given breast milk upto 6 months. After 6 month, he has to be given different nutritious family food with breast milk. If he suffers from diarrhea, he must be given oral saline and other foods also.

ii) Treatment to contagious diseases will be given properly and nutritious food will be supplied.

iii) Baby's weight must be recorded regularly.

We should keep in mind that prevention is better than cure (Treatment).

**Task- 1** Differentiate between Marasmus and kwashiorkor.

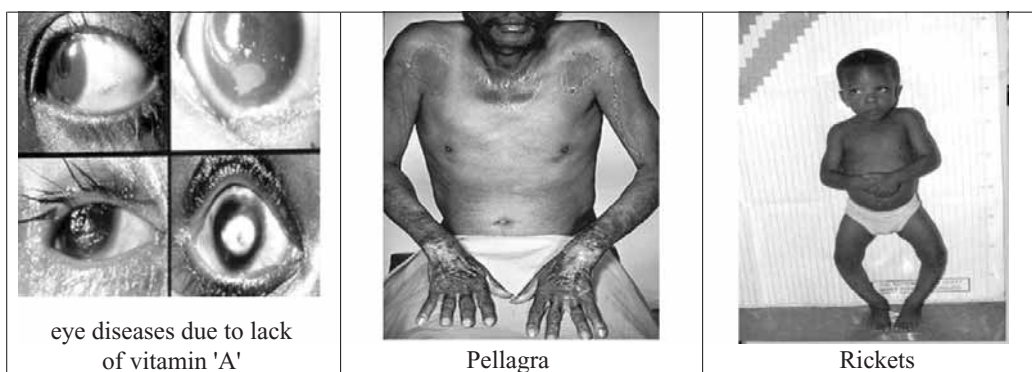
**Lesson 2 - Diseases due to shortage of different vitamins**

We know that the different vitamins in the foods help us to get the disease preventive power. The lack of these vitamins creates different problems regarding malnutrition. The causes, treatment and prevention of some diseases due to lack of vitamins are given in the chart below.

Nutrition element	Diseases deficiency	Symptoms	Causes	Treatment	Prevention
Vitamin A	Night blindness and different diseases of eye	One can not see in slight light at night for night-blindness. Besides, due to lack of vitamin A, eye-dryness and white spot on the eye is found.	The absence of milk, egg, fish, meat, liver, vegetables of yellow and orange color fruits etc in the food list for a long time.	We have to take foods containing vitamin A and complementary capsule for vitamin A in specific dose.	We have to take milk, egg, fish, meat, liver vegetables of yellow or orange color fruits etc of sufficient calorie daily.

Vitamin D and Calcium	Rickets to the children and osteomalacia, to the aged person	The bone becomes soft and thin, the feet curbs like an arrow, the shape of the head becomes large when a baby suffers from rickets. If an aged person is affected by osteomalacia, the bone becomes soft and fragile.	The absence of milk, milk made food, egg, butter liver, vitamin D enriched food etc. Again if one keeps himself away from sun ray or suffer from weak digestion power may be a victim of it.	Vitamin D enriched food and its complementary capsule should be taken in fixed dose. A regular sun bath of 30 minutes is needed.	We have to take milk, milk made food, egg, butter liver, small fish with its bone of enough calories. We have to take a 10 minute sun bath.
-----------------------	--	---	--	--	---

We should bear in mind that prevention is better than cure (Treatment). Some problems for the shortage of vitamin are shown below in some pictures.



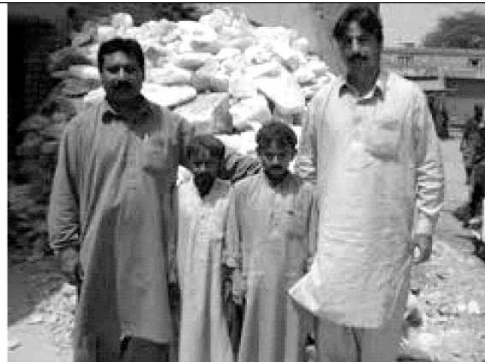
### Lesson 3 - Diseases for want of mineral salt

We take different food enriched in mineral salt which help us to prevent various diseases. Different symptoms of malnutrition are seen in our body due to lack of these vitamins.

Some mentionable diseases due to deficiency of mineral salt are focused in the following picture.



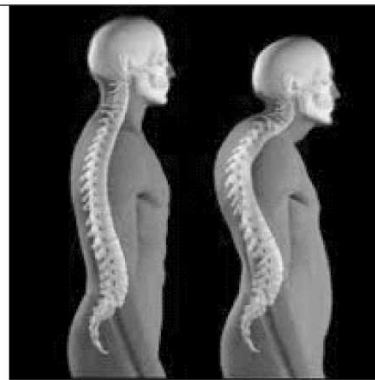
Goitar due to deficiency of iodine



In the picture above there are 4 persons of same age. Among them two persons are of normal height standing both sides of picture. In the middle two persons are attacked by cretinism due to deficiency of iodine



Rickets due to deficiency of calcium



Osteomalacia due to deficiency of calcium



A list of causes, symptoms, treatment and prevention of different problems due to lack of some important mineral salts is given below:

<b>Nutrition element</b>	<b>Diseases deficiency</b>	<b>Symptoms</b>	<b>Causes</b>	<b>Treatment</b>	<b>Prevention</b>
Calcium	Rickets to the children and osteomalacia, to the aged person.	The bone becomes soft and thin, the feet curbs like an arrow, the shape of the head becomes large when a baby suffers from rickets. If an aged person is affected by osteomalacia, the bone becomes soft and fragile.	The absence of milk, egg, fish, meat, liver, vegetables of yellow and orange color fruits etc in the food list for a long time.	To take calcium enriched food and also complementary tablets in specific dose.	We have to take milk, egg, fish, meat, liver vegetables of yellow or orange color fruits etc of sufficient calorie daily.
Iron	Anemia	Due to anemia hemoglobin reduces, color of the body, tongue, lips, palm, nails look pale, the patient also feels physical weakness headache, vertigo or become tired after little work	The absence of liver meat, egg, dal, vegetable and iron enriched food in the food list for a long time. Lack of iron due to repeated delivery. If the baby is not given extra food after 6 month of birth and suffers from worm infestation.	To take iron enriched food and also complementary tablets in specific dose.	We have to take enough calorie, liver, meal, egg, dal vegetables and iron enriched food.

Iodine	Goiter and Cretinism	The thyroid glands in front of neck become large. It is called goiter. Besides Cretinism is also found	The absence of iodine in the food list for a long time.	Iodine enriched food and its complementary tablets should be taken in proper dose	Sea- fish must be included in food list. The cooking should be completed using iodine enriched salt.
--------	----------------------	--	---	---	--

It is easy to remain safe through taking different disease preventive measures than being affected with any disease due to malnutrition.

**Task -1** What type of physical problems can be seen due to lack of iodine? How will you prevent these problems for your family?

## Exercise

### Multiple choice questions:

**1) What is the another name of Kwashiorkor ?**

- a) Chilosis                                  b) Pellagra  
c) swelling of body                        d) skinny

**2) Which one is vitamin C enriched fruit ?**

- a) banana                      b) jack- fruits  
c) guava                        d) water melon.

**Read the passage below and answer the question no 3 and 4:**

The two legs of Jahura's 6 years old child is getting curbed like an arrow. The head also looks like a box. When she consults with a health worker, the health worker gives her necessary advice.

**3. What is the disease of Jahura's baby ?**

- a) Pellagra
- b) Rickets
- c) Beriberi
- d) Goiter

**4. The suggestion for Jahura's baby –**

- i. to feed small fish or milk
- ii. to feed bread or sugar
- iii. to have a 10 minute sun bath.

**Which one below is correct ?**

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

**Creative question :**

The worker, Salma has 3 children. She does not take so much care of the children. So, the younger son always suffers from bowels complaint. At present he is becoming lean or thin. The skin of the baby's body is shrinking. The belly is no more swelled rather it looks like a hole. Salma became anxious and consulted a doctor. Doctor gives her necessary suggestion and also told that the baby would not be attacked by this disease if Salma became careful.

- a) What type of disease is seen for want of vitamin C.
- b) What is malnutrition disease .
- c) Describe the disease of Salma's baby
- d) Evaluate doctor's suggestion regarding Salma's baby.

## Chapter-Ten

# Carefulness in selection purchase and preparation of food for the family

### Lesson 1- Selection and serving of food according to season and festival.

The main purpose of family food planning is to arrange a balanced diet for the family with in fixed time in accordance with the income. In this case some things are also considered such as- food habit, livelihood, tasty and attractive food, specific physical demand and allotted amount, serving style and time, weather and season, purpose or occasion advantages of related equipments, skill of the cook, use of correct recipe, use of excess food etc.

#### Selecting food according to season:

The vegetables and fruits which are available in a period should be selected for the menu. Because the seasonal vegetables and fruits are cheap, full of nutrition and fresh in taste and smell.

Season /weather affects man's habit and demand of food. For example- man needs excess energy to maintain the temperature of the body. On the other hand, a man of tropical countries can take food of less calorie. So, the tendency of taking butter, oil, egg, coffee, coco etc is found in the people of cold countries.

In this way, the demand for food may be less or more. In every season some special food are produced. Such as- mango, lichee, Jackfruit, water melon in summer. Fatty food like- ghee, butter, meat and other oily food may be included in our food list in winter season. Again in rainy season some oil- fried food item such as- *Singra*, *Samucha*, *Piaju*, *Chanachur*, *Muri* etc. become very tasty.

Various seasonal vegetables and fruits are available in different season in our country. So the food chart can easily be made balanced and full of variety.

The list of seasonal fruits and vegetables are:-

Summer and Rainy season	Winter season
Mango, Jackfruit, lichee, berry, wood apple, water melon, melon lemon, lotkon papaya, pineapple, ladies finger, data, brinjal, luffa, chichinga, parwar, pumpkin, white gourd, cucumber etc.	Olive, plum, kamranga, tomato, red spinach, spinach, cauliflower, cabbage, bean, gourd etc.

### Selecting food according to festival

Festival plays a vital role in making food list or making plan for everyday food. Besides daily food list we have to arrange special food list on various occasions. Menu is of great importance for any big or small ceremony. Variety is found in a menu on different occasions. In wedding, *Gaye Halud*, birthday, marriage ceremony, death anniversary etc. different items of food are served. In some religious festival such as – Eid, Puja and national or special ceremony, we find the variety of food list. Food planning for indoor or outdoor festival is also different. Besides, the food list may be different on the basis of taste, age, view etc. of the invited guests. Serving time also has a great influence. Such as – dinner, supper and tea-break in the afternoon etc.

#### Type of food planning on various occasions:

i) Cake	i) Biriani /polau	i) Polau /Biriani	i) Large jilapi
ii) Roast meat /vegetable chop	ii) Roast	ii) Chicken roast.	ii) Laddu /sandesh
iii) Pitha	iii) Beef/Mutton Rejala	iii) Beef/Mutton Rejala	iii) Singara
iv) Chatpati	iv) Vegetables	iv) Salad	iv) Nimki
v) Soft drink	v) Salad	v) Curd / sweets / soft drinks	v) Banana
	vi) Borhani		
	vii) Sweets / curd		

### Lesson 2 – Serving Food

Serving food means to arrange food for eating following some specific technique. According to food plan the satisfaction of eating must depends on the neat and clean serving system. The serving system should be proper inside and outside the room. The type of serving food depends on the type of occasion and variation of serving. Again the time of food planning brings variety in serving style.

## Serving system in different situation

Environment / place	Time of eating	Serving system
Hostel	Breakfast	Table service
House	Tiffin	Buffet service
Hospital	Lunch	Pass on service
Office	Tea-break in afternoon	Tray service
Community center	Dinner	Packet service
Hotel		Service through director.
Rehabilitation center		

Considering all the serving system, we find that serving systems are of mainly two types. Such as –

**a) Informal system :** It is suitable for house, picnic or in journey.

**b) Formal system :** The pre-planned food items are served on specific occasion in formal system such as – marriage, annual dinner, official party and seminar in hotel and restaurant etc.

In our country, we see the mixture of both formal and informal system. Many systems are in vogue in our country. Among these, the most important systems are –

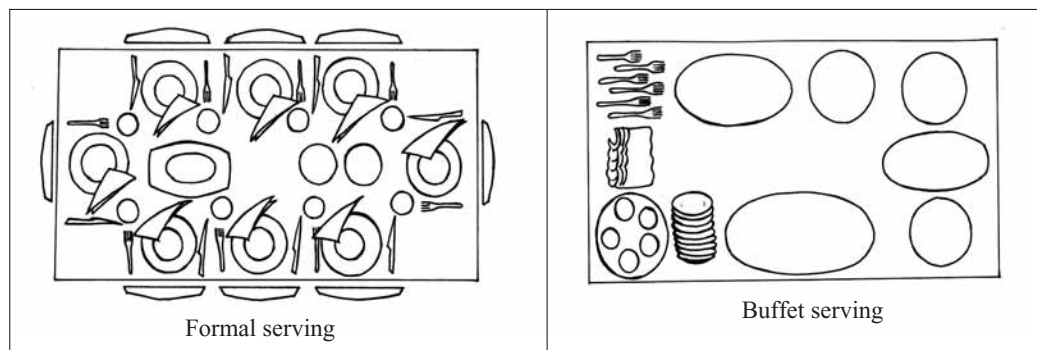


Food serving in house

- Land lord or land lady or the host himself serve the food. This type of serving is considered as the most cordial entertainment in our country.
- To serve food by any waiter, gives the opportunity of enjoying food both to the guests and host together.

- **Tray serving:** It is found in different educational institution like Office, hospital, office canteen, cafeteria etc.
- **Packet serving:** Packet – food is served in *Milad*, seminar and other social occasions. It is more congenial to serve snacks in packet or box among the people of a large gathering.
- **Buffet serving:** In this system, we can set up many tables in open space, lawn, veranda, drawing room and in other places at a time and each table will be fulfilled with food, dish, glass, spoon, cup and other utensils. Foods are arranged on either side or in all side of the table.

As a result, the guests can enjoy every item of food independently sitting in his seat. This system is also called self- service system.



**Task - 1** Mention the things that should be considered in selecting food occasion or season.

### Lesson 3 - Alertness in buying foods

To arrange balanced diet for the family a food list is prepared and food items are selected and bought according to that. Cooking fully depends on buying goods from the market. Sometimes we can not buy for economical problem of the family what we desire. So we have to change our decisions. The head of the family makes the list for considering the like, dislike, taste and demand of the members of the family. If all are conscious about the nutrition of the family, the nutrition can be ensured for all in a family. To make the serving and preparation of food attractive, the selection and buying of food are important. It is not easy to choose fresh and clean food. Experience and knowledge in food selection is needed. Some steps should be considered in buying foods. These are –

- **Justify the food value-** We must be careful to fresh food and food value. We must not buy rotten fish or meat. If it is needed, we may buy substitute food.
- **Justify the price-** The market price of goods is not fixed for the price- hike of food. So we must be sure of the real value of goods without being motivated by the sellers.
- **Buy foods after experiments-** We should not be puzzled by the price- hike and limited budget for shopping. We will try to buy foods through bargaining and experiment. We should refrain from buying rotten food in cheap price. It is reasonable to pay high price for the goods if it is up to the mark.

- **Cut your coat according to your cloth-** It is safe not to cross the budget. For this, we must have the idea about the price of things and what alternative things we can buy with the same price. We can collect all these information before starting shopping.
- **Be careful to weight-** If we don't have the knowledge of calorie in comparison to weigh, we will fail to fulfill the demand of nutrition.
- **Selection of fresh and clean food according to season-** The vegetables of a particular season can remain fresh and clean only during that season and can contain the food value exactly.

Time, color, smell and shape of the food should be considered in selecting them. The natural color of vegetables attracts a buyer. The color of fresh and clean food looks nice and its shape remains proper. If the color fades, the food must be rotten and stale. If the outer side of a fruit is shrunk, color fades, it indicates the less food value. The food value depends on the maturity of the fruits. Such as – lady's finger, luffa, guava, apple, pine-apple, palm, cabbage, cauliflower and green and yellow vegetables should be bought when they are in fresh condition. The standard of these foods should be first class. Stale, rotten or worm affected foods should never smell and color of food does not remain perfect. So experience and skill is a must in selecting food.

<b>Task -1</b> Mention the ways of being careful in buying foods.
---

#### **Lesson 4 - The harmful chemicals used in food**

Every animal needs food to live in this world. Food controls the internal actions of the body and keep it healthy and active. Every family tries continuously to keep the mechanism of the body active and flawless. Foods are bought according to the want, contentment, good health of the members of the family. Goods that we buy from the market may not be pure because a group of dishonest businessmen mix harmful chemicals in green or prepared food to make more profit. These chemicals keep the foods fresh and attractive externally for a long time. Hydroge is used in milk and sugar. Carbohydrate is used to ripe the green and immature fruits. Artificial color is used to make the food attractive. Chemicals are also used to produce more crops, fruits, vegetables etc. In this way, the chemicals are used from the production to preparation and preservation of food.



**A list of harmful chemicals used in foods is given below –**

<b>Name of food</b>	<b>Name of chemicals</b>	<b>purpose</b>
Fish and milk	Formalin	To preserve for long time preventing rottenness.
Vegetables	Pesticides and formalin	To control the attack of pest and keep the food fresh.
<i>Jilapi and chanachur</i>	Mobil	To make crispy and to enhance taste.
Cheap, <i>bakery food</i> , soup, icecreame, noodles., sweets, <i>semai</i> , etc.	Textile and leather dye, Hydroge, acid	To make attractive, to whiten and to increase the scent
Different fruits	Formalin, carbide Ethophane	To ripe and to prevent rottenness.
Rice crispy	Hydroge, urea	To make shinny, white and large size through swelling.

The health security of our people is now in danger for taking chemical mixed foods. The diseases of liver, kidney, heart, and attack of cancer have increased. People are also suffering from gastric ulcer, stomach pain, loss of appetite and hunger, liver cirrhosis and kidney problems. Natural environment is also polluted by using chemicals.

<b>Task - 1</b> Name the harmful chemical elements used in foods.
---

**Lesson 5- Affect of food adulteration and steps to prevent it**

We all are buying some goods from the market daily and we are beguiled by the sellers in different ways. Either the sellers are cheating the customers in weight or they are adulterating foods before selling it to the customers. Some sellers are selling some goods which threaten the consumers' life. The reason is that some dishonest business men are mixing some harmful chemicals with raw or prepared foods, such as – the use of formalin in raw fish, ripe fruits, the use of urea in fried rice to make it larger and whiter, the mixing of sand, stone, pieces of brick and other uneatable things with rice, *dal*, spices and other foods to increase the weight.

Moreover, various harmful elements are mixed with foods to increase its external attraction. Such as –

- ☐ • ☐ To mix white powder with flour to make it white.
- ☐ • ☐ To mix powder of brick sands, other poisonous powder in the spice.
- ☐ • ☐ To mix the powder and wood in tea.
- ☐ • ☐ To use animal fat or other saturated fat with palm oil.
- ☐ • ☐ To use impure fat in butter.
- ☐ • ☐ To use the unused things of cow and goats in making chopped meat.

In this way vegetables, fruits, baby food, even rice, *dal*, oil, salt are being adulterated. These foods are not suitable for health. The diseases like mal-digestion, vomiting diarrhoea, problems in kidney and liver, and many other diseases including cancer can affect us for taking these foods. The adulterant foods destroy our disease prevention power and make us weak. According to the physicians, the adulterated foods are equal to slow poison. Everyday we are taking adulterant food unconsciously. It has a long term effect in our body. These are creating new diseases which are a threat to our health.

#### **Prevention and responsibility –**

- ☐ • ☐ we have to be careful to prevent adulteration.
  - we all have to help the government in making and implementation of law against adulteration.
- ☐ • public awareness should be increased.
- ☐ • we have to inform the people of the bad effect of taking adulterated food.
  - We have to start a campaign against adulteration and have to take the help of people of all walks of life and different media.
- ☐ • Above all, we must be careful in buying.

**Task -1** Write about the effect and prevention of adulteration.

### **Lesson 6 – Cutting and cleaning process of vegetables ,fish and meat keeping the food value unchanged**

We have to go through some process making most of the foods eatable except some fruits, some vegetables, nuts, date juice etc. This process also affects the taste of food and its food value. We have to go through some steps to make eatable food from raw foods. The number of steps depends on the physical condition, chemical structure and the demand of food.

The steps we have to cross to make eatable food from raw foods are as follows:

- to clean and wash the foods.
- to make dust.
- cut out the unnecessary part.
- cook.
- cut into pieces properly.

Vegetables fish and meat are the important sources of supplying nutrition in our body. Potato, raddish, carrot, cabbage, celery, spinach etc are essential item of our daily food. We get different types of vitamin, mineral elements, protein from vegetables, fish and meat daily. We may get less nutrition from the foods if we make any fault in the process of making eatable food from raw materials.

**The mentionable ways of preparing vegetables, fish, meat for cooking following the rules of nutrition –**

- All kinds of vegetables and fruits should be washed before cutting.
- Vegetables should be cut into big pieces because vitamin remains just under the cover.
- The Vegetables should never be kept in water after cutting into pieces. because soluble vitamin B and C is lost in this process
- If the pieces pf vegetables are left for long time after cutting, the food value is lost with the contact of air. So the vegetables should be cut into pieces just before cooking.
- Fish or meat can get rotten quickly. To remove dust or dirt from these, we should wash them before cutting.
- Fish or meat should be cut into pieces properly.
- After cutting meat or fish into pieces it should not be kept in water as it may spoil the food value.
- The cooking must be started with in a very short time after cutting or washing it.



Fruits and vegetables should be washed before cutting

**Task - 1** How the food value can be preserved after cutting or washing.

## Lesson 7 - Food Processing

To make food free from germs, suitable for digestion and absorption to save the food from harmful element applying scientific methods is known as food processing.

### The main purpose of food processing –

- to make food eatable
- to increase food value
- to increase taste
- to save from the attack of micro organism
- to preserve food of a season for the use in another season
- to make new types of food

### The way of processing-

With some exceptions, some major ways for processing have been used commercially these are –

- Heating
- Cooking / Freezing / chilling
- Fermentation
- Irradiation
- Microwave use.

### The way of processing for fruits or vegetables –

- Pot selection** -At first the pot has to be selected to preserve according to it's characteristics.
- Food selection** -The fruits and vegetables which are matured, fresh, flawless and of high qualities are collected for preservation. The gradation is made on the basis of shape, colour, maturity etc.
- Washing** - In this stage , selected food has to be cleaned by washing. In this way the dust, dirt, germ of fruits and vegetables are removed.
- Peeling the cover off-** Most of the fruits and vegetables are peeled off before preservation. In this purpose it is kept in boiled water for 1-2 minute.
- Cutting** -After peeling the cover off the fruits or vegetables are cutting to pieces according to one's desire and advantages.
- Blanching** -After cutting the fruits or vegetables these are kept in boiled Water for 5-10 minutes and then made cool. This process is known as blanching. As a result the enzymes in food are destroyed and the smell is removed.

- vii) Pouring salt water or syrup :** The fruits are mixed in sugar syrup of 175 – 180° f temperature and the vegetables are mixed with salt water of same temperature and then kept in bottles.
- viii) To make air less –** The air inside the pot is removed in a specific way. If we keep the cover of the pot open and boil the pot keeping 23 of it in the boiling water, the air inside the pot gradually comes out. In this way, all air comes out when the temperature cross 80 c.
- ix) Covering -** After making the pot air-less , the mouth of the pot is to sealed air-tightly mechanically not manually.
- x) Sterilizing -** A sealed tin-pot is heated for 30-40 minutes with steam in the sterilizer. The fruits need 100°c and the vegetables need 116°c temperature. Just after heating, it is made cool keeping in cold water without any delay.
- xi) Wiping -** When the temperature becomes normal, we have to wipe it with a clean and dry cloth. If there remains water on the outside of the pot, it may create rust.
- xii) Labeling or storing -** A label must contain the name of the food , quantity, ingredients, date of preservation, date of expiry etc. Then the pots are kept in store.

Pot selection → food selection → washing → peeling off → cutting → Blanching → pouring of salt water or sugar syrup → air free → setting lid → sterilizing → wiping → labeling → keeping in storage.

the steps of processing fruits and vegetables

Besides it, we can preserve cooked food, fresh or clean fruits, vegetables in refrigerator in 0°. to 5°c temperature at home. In the ice- cell of deep refrigerator we can preserve food in 18°c to – 40°c for 6-7 months at home. We have to keep fruits and vegetables in refrigerator with 24 hours of collecting it. To make the micro-organism and enzyme inactive, the food should be heated for 2-3 minutes in boiled water. Then , it must be kept in cold water without any delay. When the foods will be cool, the water should be wiped well. Then keeping the foods in polythin bag , it is preserved in the ice- chamber. In this process, we can preserve it for 5-6 months. The color taste smell is not changed at all. For such kind of preservation the packet should be small and after opening a packet it must be used at a time. Otherwise the food coming into contact of air may be spoilt soon.

**Task - 1** write the steps of processing fruits or vegetables.

## Exercise

### Multiple choice questions :

**1. Which chemical is used to prevent the rottenness of fish?**

- a) mobil
- b) carbide
- c) hydroge
- d) formalin

**2. Which food is eatable without cooking ?**

- d) potato
- e) carrot
- f) beam
- g) French

**Read the paragraph below and answer question no 3 and 4.**

Tasnim's mother invited some of Tasnim's friends on her birthday. As the invited guests were many in number she sets tables in drawing or dinning room and each table was full of different items of food. The guests choose the foods according to their wish and ate it sitting in chair or sofa.

**3) What style of serving foods did Tasnim's mother use ?**

- a) buffet
- b) packet
- c) table
- d) pass-on

**4) The advantage of the used serving style is –**

- i) no need of entertainer
- ii) many people can be entertained in small space
- iii) Entertainment can be easy in less amount of food.

**Which one below is correct ?**

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

**Creative questions:**

1. Jhumur bought some winter vegetable to use afterwards. But she boiled the vegetables for few minutes before preserving it in refrigerator. Before cooking , she kept the small pieces of curry into water for a long time. Completing other works, she cooked the curry.
  - A) Which thing is used in tea for adulteration?
  - B) What do you understand by slow poison in food?
  - C) Why did Jhumur boil the vegetables ?
  - D) How far is the way of jhumur's cooking curry healthy ? –discuss.
2. Dipa noticed that the fish and vegetables bought from the market never rot though she makes delay to preserve it. It makes Dipa very pleased. When she discussed the matter with her husband, he told her that these foods are dangerous for our health. Now it made Dipa very worried.
  - a) What type of serving system is followed in a picnic?
  - b) Why must the serving be well arranged?
  - c) Explain the causes of freshness of the goods bought by Dipa.
  - d) How far is the comment of Dipa's husband proper?-explain.

## Chapter- Eleven

### Cooking food

To cook food is the last and most important and essential of making "eatable item". The main purpose of cooking food is to make it suitable, tasty, sweet smelling and attractive. Cooking makes food easy for our digestion. Besides, many dangerous germs of foods can be destroyed by cooking.



#### Lesson 1 – Cooking system

Today, we have become habituated with cooking the most foods with the passage of time of our social and practical life. In fact cooking is a chemical process. In this case, the physical state of raw foods is changed to chemical state by heating to it.

Following certain steps common foods are made. Different cooking system has different characteristics for the temperature, water, vapor, oil and with the variation of cooking time. Only boiled or fried food can not satisfy man's hunger. Man wants changes. Only for this reason the primitive man would take burning food but many cooking system has been invented in modern civilization. To make cooking easy and fast, man has learnt various cooking system.



**Common systems of cooking are –**

- (a) **Boiling by more heat-** At this system, foods are boiled with the temperature more than 100°C or 212° F . In this case, if we throw out boiled water, we get less nutrition. Rice, *dal*, soup, mutton etc. are cooked in this way.
- (b) **Boiling by slight heat:** At this system it is cooked slowly for a long time using slight heat with little water. As a result foods are boiled well. In this case, the temperature remains from 82°C to 100°C. This system is more fruitful for sustaining the food value.
- (c) **To boil by vapor:** At this system foods are boiled with the vapor of boiling water but not by using the boiled water directly. In this case, food is covered keeping it on the perforated wire –net, a large basket made of bamboo or cloth. No food value is lost for not coming to contact with air though the heat is given from 100° to 112°C. Pudding, steamed-cake, steamed- *hilsa*, boiling meat at pressure cooker etc. are cooked in this system.
- (d) **Fried:** Fried means to cook food in deep oil with the temperature of 300°C. In this method the food is cooked either using less oil or much oil. If food is fried in deep oil, it comes to less contact with air and is fried quickly. Some foods are made crispy frying in deep oil with slight temperature for long time. For instance, chips, *peyajji*, *nimky* etc. At this the calorie of foods increases. We fry vegetables, fish, egg etc with a little oil. In this process, food is kept covering and fried slowly. Oil is not spent more. The nutrition of food is saved. If food is fried without any lid with less oil, vitamin saturated in fat, is vapoured by oil. Thus nutrition is wasted.
- (e) **Burning or making roast:** In this method, potato, brinjal, sweet, potato, maize etc are directly burnt. Window pane, *Boti kabab*, *Tondur*, roast of hen etc. are made in this method also. If we cook food in this way, the food value is destroyed more for coming to contact with air and temperature.
- (f) **Make dry in heat:** The method of making food free from water or make it dry in the hot pot directly means make dry in heat. In this method no oil or water is used. The temperature and time which is needed to vapor the water in food are enough to complete the cooking. Thus toasted paddy, cereal of rice, almond parched are prepared. Shrimp, small fish are made moist mass and mixed with spices in a dry pan. *Dhoney jira*, dried fish are made crispy. Bread is baked on hot pan.
- (g) **Baking:** In this method different foods are heated well in an oven and big cooker. Bread , cake , biscuit, fish, hen are cooked well in the oven. In the oven temperature and time can be controlled for different foods.

We have to keep in mind that different cooking system is not only a variety but also the scientific method for maintaining the food value.



Different methods of cooking

**Task-1** Write down any five systems of cooking.

## Lesson 2 – The necessity of cooking

The primitive man would take raw foods. Man has become successful to make fire with the development of civilization. The cooking has been practicing since long ago. The purpose of cooking food is to make it suitable for our digestion, to make it tasty as well as to destroy germs. Cooking means to keep foods on cooker after washing and cutting it. Cooking is the most important way to make eatable items. The taste, color and smell of food etc increases for cooking. Foods are cooked following different systems. To know the necessity of cooking is a must before knowing the different cooking system.

### The necessities of cooking are-

- Most of the foods are not suitable for man's eating. We can easily chew and eat the cooked foods. At this, foods are digested quickly.
- The chemical change of foods that happens for cooking helps to digest indirectly. When animal food is boiled, the Colagen of connected tissues turns into Jelaytin and the food becomes suitable for our digestion. The elements of foods, become active for our body after cooking.

- The ingredients like oil, spices, onion etc. are used in cooking to make foods attractive developing color, smell, taste. The corn and carbohydrate of vegetables is pierced in boiled water. Then it is changed into dextrin maltase and makes it sweet. The taste of foods is developed through fry, baking and caramel etc .
- The attraction of eatable items depends on mainly texture. Texture indicates the physical state of cooking foods. For instance, cake, pudding etc. When foods are heated for cooking the germs in foods are destroyed. Thus foods are made free from germs and save our body from toxic and dangerous elements of foods.
- The rotten foods are heated through cooking. The germs of most foods are destroyed at 45° -60°. Thus the cooking system helps to preserve foods indirectly. We should remember that if normal color smell of foods are preserved during cooking the food value is wasted less.
- Different eatable items are prepared by the same foods through cooking. Thus it creates variety in eatable items.
- Different cooking systems have been invented with the development of technology. The cooking system has to be followed depending on how the foods have to be taken. For this reason the primitive men felt the necessity of cooking and today man cook foods in different ways for the same reason.

The necessity of cooking can not be denied. But we should be careful so that the food value is not wasted through cooking.

**Task - 1** Describe the necessity of cooking?

### **Lesson 3 – Carefulness during cooking**

Housewives or cook have to work with fire. Sharp things and different metallic things in the kitchen. Kitchens of our country are not spacious. Any accident may cause during cooking for congested area, warm atmosphere of kitchen and carelessness of the cook. The accidents that happen in the kitchen are burning, cutting, slipping etc.

**Burning** – If flame from cooker come into contact with combustible things directly, it creates fire. Body, hands, scarf, ribbon may catch fire unconsciously. If the oil splitted from the pan and come to our body, we get burnt.

**To avoid these accident certain caution should be followed:**

- Hair, *aachol of sharee* , scarf should be made trim during cooking .
- Cooker should be put out completely after cooking. The firing sticks of match never be thrown out.
- The gas line, electric line of the kitchen should be checked to find out fault.
- The windows of kitchen should be opened before lighting the burner—otherwise the kitchen may be on fire for gas leakage. Pad or iron ring has to be used to remove the hot pot from the cooker.
- Pan with oil never be heated more. It may cause accident To extinguish flame, we should use other things except water.

**Cutting accident - Cause and awareness**

Common accident that may happen in a kitchen are cutting of hands with knife, *boti*, broken pieces of glass , rusted tin, broken cover of plastic or burning wood, thorn of wood and other broken things. If *da ,boti* are not kept in a proper place it may cause accident.

**In this case the ways of being careful are –**

- Equipments for cutting have to be put in a certain place after finishing the work. These must be put out of reach of the children.
- Equipments for cutting should be sharp to cut easily. For this, different shapes of cutter are needed.
- Broken and sharp pot, things for cutting must be avoided.
- Pieces of glasses have to be collected by a broom and thrown it in the dustbin.

**Slipping:-** If there remains water, scum of boiled rice, the skin of vegetables etc. on the floor of kitchen, it may cause accident. One may fall down on the floor unconsciously. For this he may get hurt on his hand, leg , head , waist or other parts of his body. Even, the bone may break.

**The things that should be taken in care are –**

- The place has to be cleaned after finishing cooking and cutting.
- The scum of boiled rice, oil, water used in washing have to be wiped out the floor. The kitchen must be kept dry always.

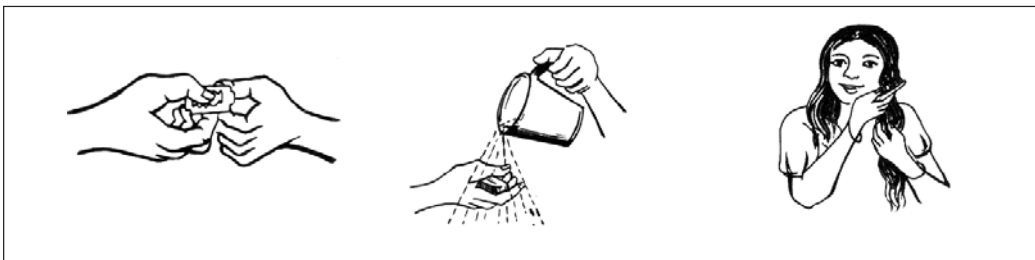
- If the used things for cooking are scattered in the kitchen, one may fall down by its hurt. So after work this has to be kept in due places.
- If the kitchen is made clean with detergent powder and hot water, the floor will not be slippery.

We should keep in mind that only the carefulness of housewives or cook is the main solution to stop accidents in the kitchen.

**Task- 1** Write down the causes of accidents in the kitchen

#### **Lesson 4 - Personal cleanliness and carefulness during work**

The pre-condition of preparing and serving healthy food is the personal cleanliness for the work. Personal cleanliness means the cleanliness of the cook's nail, hair, teeth, cloth and physical fitness etc.



Types of personal cleanliness

**The ways by which the cook will maintain cleanliness and be cautious are as follows :**

- Wash the hands well before cooking.
- The nails must be short so that no dirty things can not enter into body though food.
- The cook will never touch food after using his hands in catching dirty things or itching any part of his body without washing hands.
- If the cook's hand is affected by skin diseases, he should not cook or serve food,.
- The hair should be tied properly so that it can't fall on food or burner.
- The cook's dress must be neat and clean. The dress may be of any standard but it must be clean and free from germs.

- The dress must not be loose because it may catch fire.
- The cook may wash his hands for several times but he must use a fixed towel to wipe hands. If he uses his dress to wipe hands, the dirty things of the dress may get mixed with the foods.
- He has to wear kitchen apron to save the dress and the safety of the kitchen will be maintained.
- The cook may use gloves

**Task - 1** Write the ways of maintaining the cook's personal cleanliness.

## Exercise

### Multiple choice questions:

**1. What is the temperature of cooking by boiling?**

- a) 100° c
- b) 200° c
- c) 300° c
- d) 400° c

**2. Which food below is cooked in low temperature?**

- a) *dal*
- b) *piaju*
- c) *payes*
- d) soup

**Read the paragraph below and answer the question 3 and 4.**

Kanta makes various vegetables chop, cutlet of fish to entertain the members of her family every afternoon. Every one likes these foods as they are tasty.

**3. Which way of cooking does Kanta use ?**

- a) Low temperature
- b) frying
- c) Baking
- d) Warm in slow heat.

**4. The foods made by Kanta contain –**

- i) Vitamin A&D
- ii) Vitamin E&K
- iii) Vitamin C&B

**5. Which one below is correct ?**

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

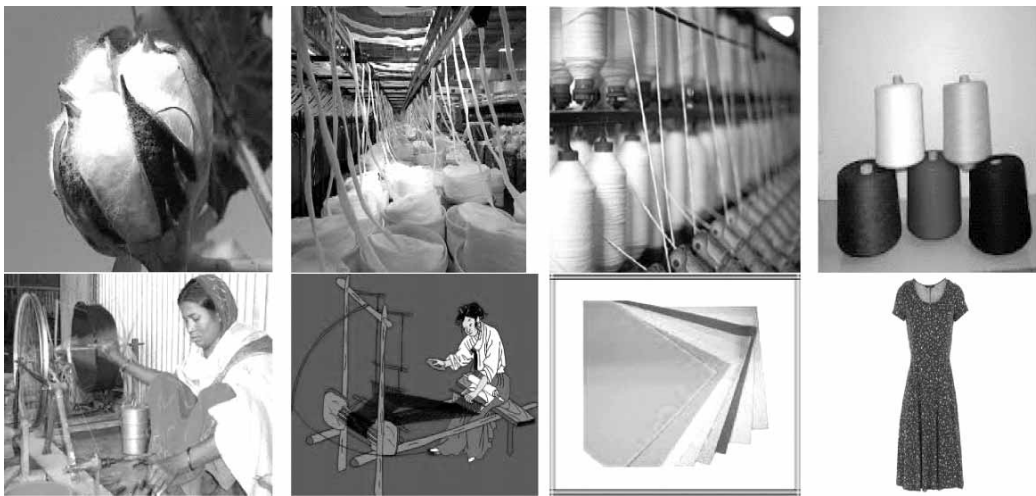
**Creative questions:**

1. Nutritionist Dr. Anowara with her daughter Shuvechcha went to a restaurant to take tiffin. Suvechcha noticed that the shopkeeper was not baking the bread on hot pan rather he was pesting it on the wall of clay-made burner and after some time the bread was prepared. Shuvechcha's mother told her that it was a process of cooking. She also told that cooking is needed to make food suitable for body.
  - a) What is the lowest temperature of cooking?
  - b) What do you mean by personal cleanliness during cooking?
  - c) Explain the way in which bread was prepared in the restaurant.
  - d) Evaluate the comment of Dr. Anowara about food.
2. Rima get burnt with boiled oil when she made haste to remove the fry pan from the burner during frying *samucha*. Hearing mother's cry , Rima's daughter enter the kitchen running but her leg get hurt with the *boti* lying on the floor of kitchen. Rima's husband gave them necessary primary treatment.
  - a) What will you do before starting cooking ?
  - b) Explain the way of cooking food enriched in calorie.
  - c) What type of carelessness is responsible for Rima's accident ? – explain
  - d) Rima's carelessness in working may create more accident in future. Discuss.

## Section – D

# Clothing and Textiles

For the advancement of textile industry, different kinds of yarn and cloth of fiber are now available in our market. Yarn is produced from fiber through various processes. Again different types of cloth are made by this produced yarn in different ways. The characteristic of cloth differs from one another. So, its use and care must be different. Every family should select their right cloth of fiber according to their necessity. As dress is an expensive thing, we have to buy a dress on the basis of stitching, fitting, finishing, price etc. In a civilized society, dress is a very significant thing. If anyone is skilled in sewing, it is better for him to make it at home. We have to follow some steps to sew a dress beautifully and neatly in short time.



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

- We can describe about wearing and the different steps of making yarn.
- We can explain the considerable things of selecting dress on the basis of age, occasion, weather, income etc.
- We can explain the quality of cloths on the basis of the reconstruction of fiber in buying dress, stitching, fitting, finishing, price etc.
- We can describe the rule of cutting and the system of measurement of cloth.
- We can describe the processing of cloths for making dress.



## Chapter - Twelve

# Making of yarn and weaving

### Lesson 1: General system of making yarn

The dress we wear are mainly made from cloth. This cloth is produced in different process, such as- weaving, fitting, knitting, braiding, bonding etc. Yarn is the main element of weaving or knitting. Do you know how this yarn is produced? In this lesson, we will learn about the general system of making yarn.

Before knowing the general system of making yarn, we have to know, what is the main element of making yarn? Fiber is the main element of yarn. The fiber which is used to produce yarn can be natural or artificial. Again the yarn can be made from the mixture of the natural and artificial fiber. It is really a matter of wonder that yarn is made of numerous fiber which is at least 0.5 inch or more than that in size. The yarn may be produced from the twisting of group of fiber together. In another words, it may be said that the thing which is used by twisting a group of fiber collectively for producing cloth is called yarn.

If the fiber are twisted more for making yarn, the yarn may be hard, less bright , short in length and at last it may torn.

You will notice that some cloths are coarse and rough. The yarn which is used to make this type of cloth is produced from small fiber. On other side, the yarn produced from long fiber is smooth and bright so the cloth made from this yarn will be also smooth and bright.

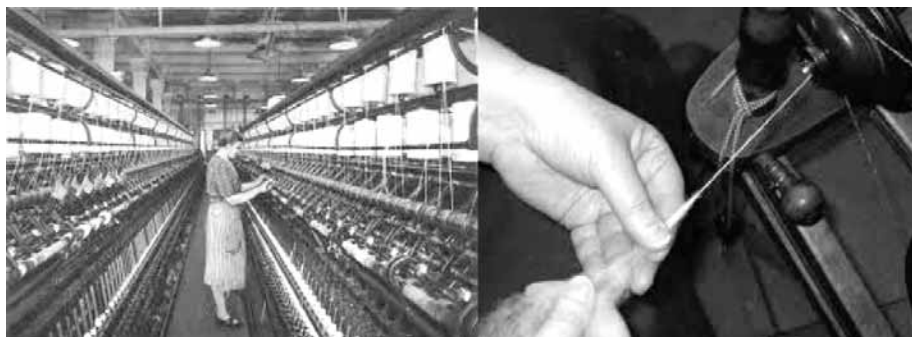
Actually there is no definite system of making yarn from fiber. The process of making yarn for various fibers are different. Carding is the first step of making yarn for fiber like wool, flax, etc. During carding, the dust, loose dirt, sand and extra short fiber are removed from fiber.



Removing extra dust from fibre through carding process

Combing is the second step of making yarn. This system is not necessary for coarse yarn and cloth. But combing is necessary after carding to avoid the excess short yarn for getting soft and smooth yarn or cloth. As a result the remaining yarn of perfect length makes a layer. This thin layer is called sliver.

Combing process is not used for flax and linen, Instead of it, the similar process used for it, is called hackling. From the long fiber of linen, we can get soft yarn and the position of fiber in sliver must be paralleled. So for this type of yarn hackling is needed more. For silk, some long fiber are twisted together. The twisting is called reeling. Thus the twisting and mixing of some fiber is called throwing. The last step of making yarn from fiber is spinning. Before this process, sliver or thin layer of fiber is made more thin through roving and next, yarn is made by twisting it. When the sliver is twisted, the fibers mix with one another closely and take the shape of yarn. The artificial fiber like rayon, Nylon etc. is also twisted. The short fiber takes more twists than large fiber. If the number of twists becomes more, the yarn becomes stronger. But the excess twist may tear the yarn. The number of twists differs on the basis of length and quality of the original fiber at the time of preparing yarn.



Spinning is the last stage of making yarn from fibre

**Task -1** State the steps of preparing yarn and fiber one by one before your friends.

**Task - 2** Ask your friends about the result of twisting more at the time of making yarn.

## Lesson 2 – weaving

If we notice it will be clear to us that the nature or quality of the cloth of our Salwar, Kamiz, Shirt or Pant is not same to that of *Sharee* and Blouse that our women wear. Can you tell the reason of it? The system of producing cloth is one of the causes. We have learnt that cloth may be produced in different ways. Among these ways, the most common is weaving. The machine by which cloth is prepared through weaving process is called loom. The loom may be run by hand or machine.

A set of yarn is arranged vertically in the loom and this state is called warp or *Tana*. Another set of yarn is placed horizontally through the yard placed vertically and thus cloth is prepared. The yarn which is placed horizontally by the help of an instrument named shuttle or *Maku* is called weft. So it is clear that the mixing of the warp and weft in right angle is called weaving.

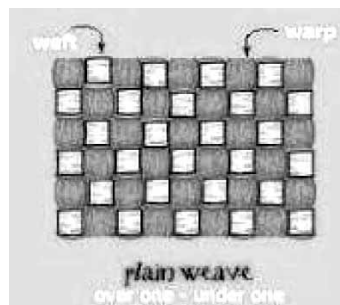


Hand loom

These are different types of process for weaving to make different types of cloth. So the basic weaving is classified in three groups. Such as– Simple weaving, Twill weaving, Satin weaving.

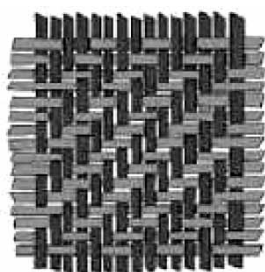
#### A. Plain weave :

Long cloth, voil, poplin which we buy from the market are usually produced through simple weaving. Napkin, Lungi and *Tant Sharee* are also made through the process. It is the easiest way of weaving. In this process of weaving a *poren* yarn runs up and down through a stretched yarn. In this weaving both a stretched yarn and a *poren* yarn remain side by side. As a result, the cloth becomes very smooth and durable. The cloth becomes suitable for dyeing and printing. When the cloth gets dirty, it is detected easily and can be washed properly.



Plain weave

**Task - 1** Make simple weaving with pieces of paper and present it in chart with the help of Your teacher in the classroom.



Twill weave

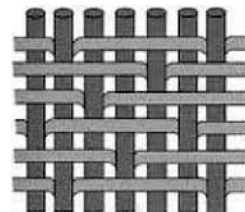
#### B. Twill weave:

Jeans, drill gabardine etc. that we wear are processed in Twill weaving. In this process of weaving *poren* yarn goes through the stretched yarn in such a way that an angled shape appears on the cloth and so it is called twill weaving. The cloth made through this process of weaving is strong and durable. Dirt is not easily noticed in this type of cloth. But when it gets dirty, it is difficult to clean the cloth and the washing is not as easy as that of plain weaving.

**Task -1** Make twill weaving with pieces of paper and rod with the help of your teacher.

**C. Satin or Sateen weave:**

The diagonal line in satin weaving is not so evident as twill weaving. In the process of satin weaving, the *pore*n yarn goes over a stretched yarn and goes under four or more yarns. On the other hand, in sateen weaving the *pore*n yarn goes under a stretched yarn and over four or more yarns. In these two types of weaving the surface of the cloth looks smooth and bright as there is no inseparable diagonal like twill weaving. *Salwar, Kamiz, Punjabu, Pajama*, frock, curtain, bed cover and decorative dress are made of this type of clothing. The cloth is also used for lining of coat, suit and *Sherwani*. In this weaving, most of the yarns of the cloth remain visible. So, this type of cloth is not suitable for casual use.



Satin weave

**Task - 1** Make satin or sateen weaving with pieces of paper with the help of your teacher.

**Task - 2** Make a chart to show which kinds of weaving are used to produce different types of clothing.

## Exercise

**Multiple choice questions :****1. What is the last stage of producing yarn from fiber ?**

- |              |              |
|--------------|--------------|
| (a) knitting | (b) bonding  |
| (c) spinning | (d) throwing |

**2. Which yarn from fiber needs more spinning ?**

- |            |           |
|------------|-----------|
| (e) silk   | (f) linen |
| (g) cotton | (h) nylon |

**Read the paragraph below attentively and answer question no 3 and 4.**

Textile engineer Adnan works in a spinning mill. To make yarn for towel, napkin, bed cover etc in his mill, he at first transforms fiber into carding.

**3. Which fiber is used by Adnan for making yarn ?**

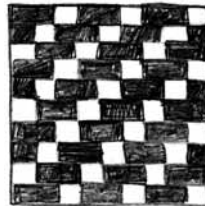
- |          |            |
|----------|------------|
| (i) silk | (j) nylon  |
| (k) fur  | (l) cotton |

**4. What will Adnan do to produce cloth from fiber after making carding?**

- (a) combing
- (b) hackling
- (c) reeling
- (d) spinning

**Creative question:****1.**

No. 1



No. 2

- (a) What is weaving?
- (b) What do you mean by yarn?
- (c) Explain why it is easier to clean the dirt of cloth mentioned in the picture.
- (d) Do you think both the process of weaving shown in the pictures 1 and 2 are equally suitable for printed design? Give reasons in favour of your answer.

## Chapter- Thirteen

# The considerable factors in selecting dress

### Lesson 1 – Dress selection : Income, Age, Season

When you were a child, parents selected your dress. Now you have grown up. You have some knowledge about fiber and different cloths. So now you can take decision in selecting cloth for you and your family. We know in civilized society cloth is the important matter for all families. But the necessity of cloth in different family is different because the ability and necessity of all families are not equal. But every family has some matters which influence the demands of a family. Some discussion about the considerable things of dress selection are given below :

#### Selecting dress according to family income :

Income is the main factor in selecting dress for the members of a family. Again the income of a family depends on some matters. Such as – How many members of the family are earning money? What are their professions? Whether it is possible of having money from other sources or property etc. It is seen that, a family having a reasonable income expenses more money for suitable dress by your intelligence and these dress may be far better than any costly dress .

#### Selecting dress according to the age of the members of a family:

There are many members of different ages in a family. Ages must be given priority in selecting dresses of the members of a family. Dress has to be selected according to the physical, mental and social demands of different ages.



clothing for the new born

Normally the skin of infants is very sensitive and they have a little power of preventing disease. So their dress will be of light colour , soft fibre and normal design. So dress can be cleaned easily. Their dress should not have hook, button, safety pin etc. to

prevent accident . Before the age of going school, the physical growth of children become very fast and they do not have any idea about an accident .So their dress should not be long but loose . The cloth of different colour or printed pictures of different animals , trees or natural scenes should be chosen as their dress . In this way they can get idea about different colour and the things around them before the age of going school. The dress of the pre-school going children should be self-help garments so that they can easily put on and put out like the picture mentioned below–



Self dependent clothings for pre school children

The sense of liking and disliking is created among the teenagers. Often the conflict arises between the teenagers and their parents on dress selection. For the proper development of their personality they must have the freedom to choose their own dress. But we must be careful that this dress must not be opposite to our social custom, culture etc.

Though the old or the retired persons have less demand for dress they should not ignored in selecting dress. For this age the dress will be of less weight, comfortable and plain design.

#### **Dress selection according to season –**

The main aim of making dress is to protect ourselves from different adverse weather. Our country has six seasons. But we give much emphasis on three seasons for selecting dress. In winter, we need woolen cloth more. The air which flow into the

		
Summer dress	Winter dress	Dress for rainy season



soft wool creates pressure on our body. For this the temperature of our body can not go out and we feel comfort. In summer, we sweat more for hot temperature. So we should select the heat conductor dress of cotton and linen. In rainy season, the dress of *Nylon*, *Tetron*, *Georget*, *Polyester* is more suitable for washing and drying. The price of cotton dress is low. But it is not long lasting and it becomes useless for sweat after a year. On the other hand, the cloth of artificial fiber and wool is costly. But if we use it carefully we can use it for many years. So, in selecting cloth we should be careful about this matter.

### **Cloth selection according to the occasion**

We have to participate in different kinds of social ceremony. Different kinds of cloth is needed for the different kinds of occasion. Such as-*Gaye halud*, marriage, *Eid*, *Milad*, birthday, death anniversary etc. Normally, beautiful, costly and multifarious dress is needed for pomp and grandeur occasion. We select simple white dress for going to the mosque, pagoda, temple etc. So we have to select different kinds of dress on various occasions to maintain social customs and religious values.



Bridal dress

### **Selecting dress according to the profession of the members –**

We can see man of different professions in our society. Such as high officials, general officer, peon, merchant, teacher, labour, doctor, nurse, soldier, fire service worker etc. The selection of their dress depends on their profession. The professions which have fixed uniform do not think about selecting dress. But those do not have any uniform for their professions. they should be careful that their dress will not be common or informal. Man feels comfort in work and get honour if he wear dresses according to his profession and social status.



Police dress



Nurse dress

### **Selecting dress according to the culture and nationality**

Every society has some own rules and regulations. Such as – the western women wear pant, shirt, skirts, tops etc. In our country, women wear *Sharee*, *Salowar*, *Kamiz* etc.



Male persons wear *lungi* , pant , shirt , *panjabi*, trouser etc. On the other hand, the women of hilly area of Chittagong wear *lungi* and *blouse*. The woman of *Monipuri* in Sylhet district wear a piece of cloth like *lungi* . In local language it is called '*phonek*'. Without it, they also use *blouse* and '*orna*'. Culture and nationality influence the dress selection of the members in a family. So, one should select the suitable dress according to one's social customs. It is seen that the approved dress by society and community gives social security and mental satisfaction and increase self confidence.



Dress for small ethnic group



Bangali dress



Western dress

**Task - 1** Mention the considerable factors in selecting dress with a chart .

## Exercise

### Multiple choice Questions:

**1 . In which age, does the liking and disliking grow in a child ?**

- a. teenage
- b. pre-teenage
- c. youth
- d. Early teenage.

**2. Selection of dress for the members of a family is influenced by –**

- i. culture
- ii. nationality
- iii. security

**Which one below is correct ?**

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

**Read the following paragraph and give the answer of the question number 3 and 4.**

The office of Nasima is very far from her house. So in selecting dress she gives priority to gorgette . But in the summer season she selects linen dress .

**3 . The cloth , given priority by Nasima is –**

- (i) easy to wash and dry.
- (ii) It can be worn without calendaring
- (iii) Heat conductor.

**Which one below is correct?**

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

**4. What is the cause of selecting cloth of specific fiber in summer by Nasima ?**

- a. cheap in price
- b. excessive heat absorbing capacity
- c. heat can be conducted easily
- d. do not last longer

**Creative Question:**

1. Salma Haque goes to market for buying dress for her two daughters, Nahi and Nimu. Nimu is a girl of 3 months and she chooses a dress of synthetic cloth. It is printed and light coloured .She chooses for Nahi, a girl of 4, a loose dress of bright colour. The pictures of different animals are printed on the dress and its buttons are on the front side . Returning home, Salma Haque put on the dress to Nimu . Nimu feels uneasy.
  - a. Which type of dress is needed for pomp and grandeur occasion?
  - b. Explain the type of summer dress .
  - c. Why does Nimu feel uneasy ? Explain .
  - d. The dress selected by Salma Haque is suitable for Nahi. Do you agree ? Give reasons.

## Chapter-Fourteen

### Considerable factors in buying dress

#### Lesson 1- Stitching, fitting, finishing and price

To fulfill the demand of dress for the family members, we buy dress considering some matters such as-the number of members, type of demand, occasion, weather, comfort and beauty and advantages of care etc. The dress of different size, design and price are available in the market now. When we buy readymade dress, some sides must be noticed, otherwise the comfort and the beauty of the wearer are hampered. If anyone avoid these matters the comfort and beauty of dress will hamper. These are-

- Stitching of dress or sewing
- Fitting or suitability with the body.
- Finishing or overall beauty of the dress.
- Price or the amount of money by which the dress is bought.

#### Stitching of dress-

Stitching means the quality or nature of sewing of the purchased dress. The longevity of a dress depends on stitching. The characteristics of developed stitching are-

- The yarn for sewing must be strong.
- The colour of yarn must be fast.
- The colour of yarn must match with the colour of the dress.
- Sewing should be neat and clean.
- Double sewing should be given in that portion of the dress where pressure is excess.
- The outside part of sewing must be over locking. For this yarn from the end of the dress can not be loose.
- The side of *Orna* must be sewed by machine or must be given *hem sewing*
- 1.3 c.m. or 5.c.m extra cloth must have in the side of sewing. Otherwise after wearing, sewing may be spoilt for pressure.

#### Fitting –

In the time of buying readymade dress, we should consider design, shape and other considerable things which will be suitable for the wearer. We should buy dress keeping pace with the age, profession and psychical appearance of the wearer. The fitting of dress should be suitable for walking, standing and sitting and other daily activities. For

this some extra measure is added with the real measurement of the body. Such as, if the real measurement of chest is 32 or 81.28 c.m, we can include 1 or 2.58 c.m. for sewing and 2 or 5.08 c.m. for comfort with it. We should be careful in the time of buying dress that, there will be no wrinkle on the dress or it will not be loose.

### **Finishing –**

In the readymade dress, finishing means the combination of the nature of fiber, standard of sewing, suitability of design, fitting etc. To justify finishing, the label with the readymade dress should be observed very carefully. We can know about the price, size way of caring etc. by label.

### **Price-**

To buy dress for the family, we decide fixed amount from total budget for expense. For that, we have to try to buy dress with in the budget of the family. If we buy dress according to the budget, it does not affect the money management of the family.

At present, wide change and development have been brought in readymade dress. For this, suitable readymade dress is bought carefully. When the customers are less in shop, we should justify the price in other shops also. Then, there will remain no possibility of being cheated .We can also exchange information with the experienced person if it is needed.

In our country, the shops of fixed price are considerably few. So we have to bargain for buying dress. It is good to buy dress from familiar and famous shops to avoid any loss. The standard of dress will be good also. Besides, in the big shop readymade dresses are sold in reduction price for 1-2 times in a year. If we can buy dress with care in that time, we will be benefited.

**Task 1-** Describe, the considerable factors in buying dress.

## **Exercise**

### **Multiple choice question :**

**1. On which does the longevity of dress depend-?**

- |           |              |
|-----------|--------------|
| a) colour | b) beauty    |
| c) price  | d) stitching |

**2. where does the brief information about dress remain ?**

- |             |               |
|-------------|---------------|
| a) In fiber | b) In colour  |
| c) In label | d) In texture |

**Read the following paragraph and give the answer of the question number 3 and 4:**

Most of the time, Mukti wears readymade dress. She faces many difficulties for this. Because of it she feels very boring. According to the advice of her friend, she wears a dress made by tailor. She feels comfort wearing it.

**3. Which does not remain in the readymade dress of Mukti ?**

- a) price
- b) fashion
- c) comfort of dress
- d) design

**4. The difference between the readymade dress and the dress made by tailor of Mukti is-**

- i) Stitching
- ii) Fitting
- iii) Finishing

**Which one below is correct?**

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

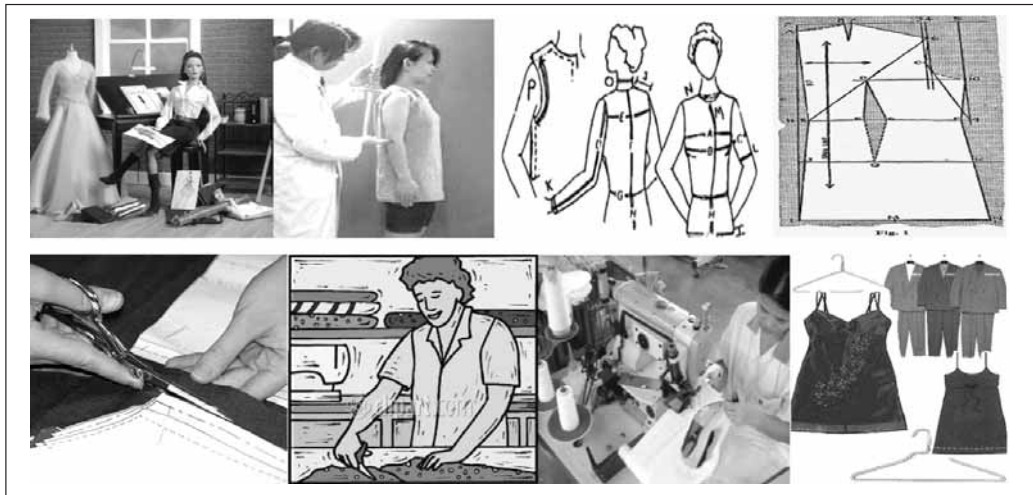
**Creative questions:**

1. In Eid, Tonni buy a costly dress in hurry. In the time of eating the dress is spotted by curry. After washing it, she finds that the sewing of the dress has become loose. The colour has also faded. Her total money becomes invalid.
  - a) What is the main fault of readymade dress?
  - b) What is the meaning of stitching
  - c) Explain the fault of the readymade dress of Tonni.
  - d) If Tonni bought dress justifying the price, she would not fall in such circumstance. Do you agree with it? Give reasons.
2. Every year after buying dress Syma falls in problem. That day she bought a dress but it was very tied to her body. The collar of dress is large, and it is not suitable for standing and sitting. Besides the outside of the dress is not well finished. In the time of changing dress she found that, the colour of the dress has mixed with her body. Her aunt advises her to buy dress seeing the label on it. Stitching, fitting and label are very important matters for buying dress.
  - a) What is meant by finishing in garments industry?
  - b) Why is extra measure added with real measure?
  - c) Explain, the important things in buying dress which will be well fitting in Syma's body.
  - d) The advice of aunt is important for buying dress – explain according to the passage.

## Chapter-Fifteen

### Making dress

Dress is an important thing for every family in this civilized world. It is better to make dress by oneself at home, if one has enough time and sewing skill. The dress made at home will be less expensive, well fitted, well sewed and good ending. If one wants to make a nice and attractive dress, one must follow some steps.



#### Lesson 1- Making cloth ready for preparing dress

Different kinds of yarn such as-cotton, flax, wool, nylon, silk; rayon, etc. are used for making cloth. Dress is made from this cloth. The cloth may be woven in hand or machine or loom. As the cloth may be prepared in different ways, there may remain gap between yarns. The washing of cloth before preparing dress may remove this gap. If the dress is made without washing before; the dress may be unfit for wearing after washing. So there will arise no problem if the cloth is prepared before cutting. In three ways cloth can be prepared before cutting. These are below-

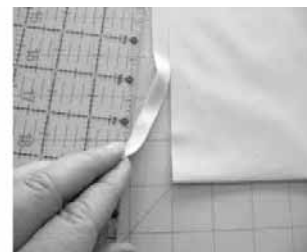
- i) **Shrinking** - The cloth may be folded and kept in water for 8-9 hours in a clean bowl. Sometimes, it must be turned inside out. Then the cloth would be brought out of water and squeezed with the two hands to make it free from water as much as possible. Last of all it has to spread in sun-light to dry. If anyone wants to shrink the cloth very quickly, he must take two bowls



Shrinking cloth

One is full of cold water and the other is full of hot water. After folding the cloth, he will keep it once in cold water and then in hot water for 5-6 minutes each time. We will do this for 5-6 times and then will make the cloth dry.

- ii) To make erect the side of the cloth-** If the side of the cloth remains uneven, it will create problem during cutting. So the sides of the cloth must be made even and erect. We can erect the wet cloth keeping it on a table flat and putting it equally from the both sides just after making it shrunken. Besides, to erect it, we can pull out a single yarn across the cloth to make a gap and cutting the cloth along that gap.



To make erect the side of the cloth

- iii) Ironing** - After making the cloth shrunken, the cloth gets wrinkled. To remove this wrinkles, one needs to calendar it. One may calendar it along its length and on the reverse side of the cloth. The heat of the calendar must be controlled on the basis of the quality of yarn.



Ironing

The color of printed or coloured cloth should be examined whether it is fast or not. For this, we can wash a corner of the cloth with soap and slight hot water and after making the cloth dry we can compare the color of this portion with that of the whole cloth. If the color becomes fade, we can keep the cloth in salt-water for an hour to make the color fast along with its making shrunken.

**Task-1** Mention the steps of preparing cloth serially for dress.

## **Lesson 2- way of taking measure of the body**

One of the conditions of making an attractive and suitable dress is to take the measurement of the different limbs of the wearer according to the design. The first duty is to make a basic design in paper. Then the final design is made from basic design. Last of all, the dress is made by sewing and cutting cloth according to the final design.

The measurement of the different limbs of body is taken on the basis of dress. So the measurement of the limbs for making a *Kamiz* will not be the same for making a pant. Whatever may be the dress, some common matters should be followed for taking measures. These are \_

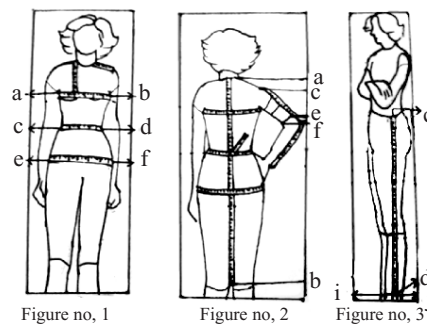
- 1) A stiff but soft tape must be used.
- 2) The tape should be held straight to take the measurement.
- 3) One should not take one's measurement At this case, the measurement may be wrong.
- 4) Stand straight for measurement.
- 5) For taking the measurement of waist, we have to hold the tape softly.
- 6) For taking the measurement of chest, we have to take full breath.
- 7) For the measurement of hip, we have to place the tape on the largest portio
- 8) For the measurement of chest, waist and hip, we have to keep four fingers spread under the tape.
- 9) For the measurement of cuff, neck and *Mouri* of the pant, we have to keep two fingers under the tape.
- 10) To take the measurement of *full hata*, we have to take it 1.90 cm excess from the wrist.
- 11) The man whose measurement will be taken must wear a fitting dress.
- 12) For every measurement, we have to write down it in a note book.

To make a dress, we have to take the measurement of the different parts of the body but they have another name on the basis of sewing.



Now, mentioning the name of different parts of the body, the way of measurement is discussed below-

- a) **Length :** Length means the vertical height of a dress. For example- the length of *Kamiz* mentioned in the figure no. 2 from a to b. On the other hand, for pants or *Salower* it is shown in the figure no. 3 from c to d.
- b) **Put:** Put is the measurement from the top- of backbone to the top of the end of a shoulder. It is shown in the figure no. 2 from a to c.
- c) **Collar:** To take the measurement of collar, we have to fix the throat as the centre point and measure around it.
- d) **Sleeve:** Sleeve means the length from the end of the shoulder to the wrist.



Body measurement

- e) **Armhole:** Armhole is the measurement of arm or wrist. It is shown in the figure no. 2 from f to e.
- f) **Body:** Body is the measurement of the larger part of the body.
- g) **Waist:** Waist is the measurement around the (koti). It is shown in the figure no. 1 from c to d.
- h) **Hip:** The measurement of the largent part below 17.7-22.8 cm from the waist. It is shown in the figure no 1 from e to f.
- i) **Mouri:** The measurement of the lower part of a leg for a full paints, trousers, *Salowar* etc.

**Task-1** Mention the measurement of the different parts of the body for making dress with figure.

### Lesson 3- Rules of cutting cloth

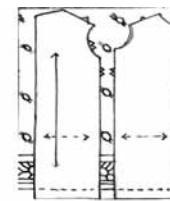
Some techniques have to be followed to bring creativeness in cutting cloth. These techniques are discussed below :

- i) The cloth must be spread on a table properly so that any side of the cloth must not hang from the table.
- ii) The technique of folding should be followed in cutting cloth. If the cloth is cut vertically, the beauty and longevity increases and wastage become less.
- iii) The printing on the cloth should be noticed during cutting the cloth. If a printed cloth is cut for a frock the drafts must be arranged in such way that the printing in the upper part of the dress must match with that of the lower part.

- iv) To cut the cloth with design at the end, we will be alert that this design will remain in the lower portion of the dress. If this design is cut and Sewed in other portion of the dress, it will also look nice.



Printed cloth



with border cloth

- v) All types of pattern should be placed on the cloth and tied it with pin before cutting.
- vi) A sharp scissors of middle size (17.78 cm-to 20.32 cm ) should be used to cut cloth. In cutting cloth, we must not use a single hand. Pattern and cloth will remain in one hand and the scissors will be used by the other hand.
- vii) The cloth must be spread well keeping the bright part of the cloth inside and examined whether necessary cloth is available or not.

We will now try to know a dress is made cutting cloth with the help of draft. In this context, we may give an example of a very simple dress, a kitchen apron. To save the dress from oil and spot of spice, we use kitchen apron.

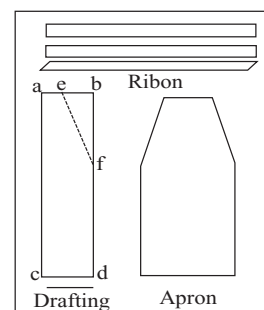


Fig 1

Fig 2

We have to take rectangular paper of 91.44 cm/36" long and 22.86/9" wide according to the figure to prepare on apron of the size 86.5cm/34" long and 46cm /18" wide. According to the figure no-1, the shape of the hand will be curb from e to f . Now, if a cloth of 91.44cm/36" long and 45.72cm/18" wide is made two fold along length and it is cut with the help of paper drafts , the appearance of the apron will be like figure number 2.

The real measurement of the apron will be 86.36 cm 34” for the reducing of 5.08cm/2” for giving a *hem sweing* along the sides of the apron .Then the two long tapes by the two sides of the waist of apron is sewed and back stitch (*bokheya sweing*) is given on the scuff. The apron will be made according to the pictur

**Task-1** Make a kitchen apron following the rules of cloth cutting after drafting it.



kitchen apron

## Exercise

### Multiple choice question :

**1. What is made on the paper according to the measurement of the wearer?**

- a) final design
- b) basic draft
- c) Dropping system
- d) Pattern drafting

**2.For which sewing is skillness essential more ?**

- i) Salowar
- ii) Blouse
- iii) Petticoat

**Which one below is correct ?**

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

**Read the paragraph below and answer the question number 3 and 4 .**

Mitu bought cloth from shop and gave it to the tailor to make a shirt. After making the shirt , Mitu wore it for some days and then washed it. Then he found that the shirt has become short and colour has faded to some extent

**3. Which pre-steps of dress making was quit followed for making Mitu's dress ?**

- i) not to wash the cloth before making shirt.
- ii) to erect the end of cloth .
- iii) to justify whether the color is fast or not.

**Which one below is correct ?**

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

**4. In what way was it possible to make Mitu`s dress fit for wearing ?**

- a) Keeping in water
- b) Keeping in detergent powder
- c) Keeping in slight warm water
- d) Keeping in solution of salt water or Potash alum

**Creative question :**

1. Feroja Begum bought 3 ft long cloth to make a kitchen apron. She didn`t use draft and folded the cloth vertically and made a kitchen apron of the size 34`` length and 32`` chest. After making the apron, Firoja Begum saw that it was not fit to her body.
  - a) What is the important rule of making a fitting dress.
  - b) In what process a pattern can be made fast-discuss.
  - c) Make a draft of kitchen apron according to the measurement of model.
  - d) Do you think that the draft was helpful to make the apron fit in Firoja Begum`s body ? Give reasons .

**End**

**2013**

**Academic Year**

**8-Home Science**

দারিদ্র্যমুক্ত বাংলাদেশ গড়তে হলে শিক্ষা গ্রহণ করতে হবে

– মাননীয় প্রধানমন্ত্রী শেখ হাসিনা

যে সমাজের শান্তি নষ্ট করে সে সমাজের শত্রু



For free distribution from academic year 2010 by the Government of Bangladesh

Printed by :