

Life and Livelihood

Class Eight



NATIONAL CURRICULUM AND TEXTBOOK BOARD, BANGLADESH



Prime Minister Sheikh Hasina received
'Champion for Skills Development for Young People' Award.

তরুণদের দক্ষতা উন্নয়নে অসাধারণ ভূমিকা রাখায় মর্যাদাপূর্ণ 'চ্যাম্পিয়ন ফর স্কিলস ডেভেলপমেন্ট ফর
ইয়াং পিপল' সম্মাননায় ভূষিত হন মাননীয় প্রধানমন্ত্রী শেখ হাসিনা। 'ইউনিসেফ' কর্তৃক ঘোষিত এ
পুরস্কার তাঁর হাতে তুলে দেওয়া হয় ২৬শে সেপ্টেম্বর ২০১৯ যুক্তরাষ্ট্রের ইউনিসেফ হাউজে। প্রধানমন্ত্রী
শেখ হাসিনা এই সম্মাননা বাংলাদেশ ও বিশ্বের সকল মানুষ ও শিশুদের উৎসর্গ করেন।

**Developed by the National Curriculum and Textbook Board as a Textbook according
to the National Curriculum 2022 for Class Eight from the Academic year 2024**

Life and Livelihood

Class Eight (Experimental Version)

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Published by
National Curriculum and Textbook Board

69-70 Motijheel Commercial Area, Dhaka-1000

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Published: December, 2023

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For free Distribution by The Government of the People's Republic of Bangladesh

Printed by:

Preface

In this ever-changing world, the concept of livelihood is altering every moment. The advancement of technology, in accordance with knowledge and skill, has accelerated the pace of change. There is no alternative to adapting to this fast changing world. The reason is, the development of technology is at its zenith compared to any time in the human history. In the fourth industrial revolution era, the advancement of artificial intelligence has brought a drastic change in our employment and lifestyles; and this will make the relationship among people more and more intimate. Various employment opportunities will be created in near future which we cannot even predict at this moment. We need to take preparation right now so that we can adapt ourselves to that upcoming future.

Although a huge economic development has taken place throughout the world, the problems of climate change, air pollution, migrations and ethnic violence have become much more intense than before. The epidemics like COVID 19 has appeared and obstructed the normal lifestyle and economic growth of the world. Different challenges and opportunities have been added to our daily life.

Standing on the verge of these challenges and possibilities, implementation of sustainable and effective solutions are required for the transformation of our large population into a resource. It entails global citizens with knowledge, skill, values, vision, positive attitude, sensitivity, capability to adapt, humanity and patriotism. Amidst all these, Bangladesh has graduated into a developing nation from the underdeveloped periphery and is continuously trying to achieve the desired goals in order to become a developed country by 2041. Education is one of the pivotal instruments to attain the goals and there is no alternative to the modernization of our education system. Developing an effective and updated curriculum has become crucial for this modernization.

Developing and revising the curriculum is a regular and vital activity of National Curriculum and Textbook Board. The last revision of the curriculum was done in 2012. Since then, a lot of time has passed. The necessity of curriculum revision and development has emerged. For this purpose, various research and technical exercises were conducted under the supervision of NCTB during the year 2017 to 2019 to analyse the prevalent situation of education and assess the learning needs. Based on the researches and technical exercises, a competency-based incessant curriculum from K-12 has been developed to create a competent generation to survive in the new world situation.

In the light of the competency based curriculum, the textbooks have been prepared for all streams (General, Madrasah and Vocational) of learners for grade Eight. The authentic experience driven contents of this textbook were developed in such a way that teaching learning becomes comprehensible and full of merriment. This will connect textbooks with various life related phenomena and events that are constantly taking place around us. This is to be mentioned here that this textbook has already been refined through a logical evaluation by the writers and the subject specialists after collecting opinion from the teachers and students via an interim try out. We hope that learning will be profound and life-long now.

Issues like gender, ethnicity, religion, caste, the disadvantaged and students with special needs have been taken into special consideration while developing the textbook. I would like to thank all who have put their best efforts in writing, editing, illustrating and publishing the textbook.

If any one finds any errors or inconsistencies in this experimental version and has any suggestions for improving its quality, we kindly ask them to let us know.

Professor Md. Farhadul Islam

Chairman

National Curriculum and Textbook Board, Bangladesh



Introduction to the Subject and a few words

Many sceneries make our minds feel good. As such, when the birds fly in the sky with their wings spread, how happy and calm they look! Then, we also desire to fly like them! Since our childhood, these types of strange and funny dreams appear in our minds. We also want to make our lives colourful and joyous. We want to involve ourselves in such activities which we love to do. We want to live beautifully and safely in days to come. The topic ‘Life and Livelihood’ has been included in this year curriculum keeping these expectations in mind.

With the passage of time, there have been many changes in our social and family life. Along with the parents, others also have become busier. So, we will have to become self-independent from our childhood. We will be trying to show you here, how we can work happily, how we can get familiar with the positive aspects of our life, and how we can master the ways to hold tight in a nicer way to become self-reliant. There is a scope in the subject ‘Life and Livelihood’ to nurture and practise the necessary skills through any engaging work for livelihood in the coming days. At the same time, the topic is designed in such a way so that we become habituated with the responsible behaviour towards our country and nation.

Dear learners, with the experience gained from ‘Exploring Joyful Work’, we will be able to organize through cheerful participation various kinds of events as family tasks for the family stock management and as a social work. In the second experience ‘Pathways to Skills Development’ we will be oriented through various activities with those opportunities which are available in the vocational, technical and higher education in order to develop our skills. ‘Making the Dreams True’ is the third experience. We will prepare ourselves to cope up through these experiences with the new potential technologies which may bring changes to our professional fields.

The fourth experience is ‘Make Ideas in Business’. Here we will prepare a locally applicable business idea by practising different tasks. ‘Introduction to Financial Services’ is the fifth experience, where we will be oriented with various types of financial inclusion programme, and we can utilize those for our own needs. Through sixth experience, ‘What Is in Me’, we will try to find our choices, interests and abilities, and will be able to determine our apparent goal based on these. After that, we will take initiative to implement through making plans of different terms in order to reach that goal.

Dear learners, finally, we have three skill courses for us: ‘Eco-tour Guiding’, ‘Care Giving-2, and ‘Grafting and Layering’. We will be able to prepare ourselves as an ‘Eco Tour Guide’ through practising various activities and contribute to tourism industry commercially in future. Besides, through regular practising of the skills mentioned in ‘Care Giving-2’, we will be able to gather certain qualifications in our personal and family life, which will strengthen our personal and family bonds. We will be able to do the grafting and sapling on different trees by understanding the environment and its usefulness through ‘Grafting and Air Layering’.

Dear learners, by applying your creativity, try to do the work which the teachers will assign you, and finish the work at a prescribed time. Take help from your parents and neighbours, if required. We request our teachers and parents that you will support them as much as possible by creating favourable and cordial environment for the learners and encourage them. We can build a prosperous Bangladesh with our collective effort.



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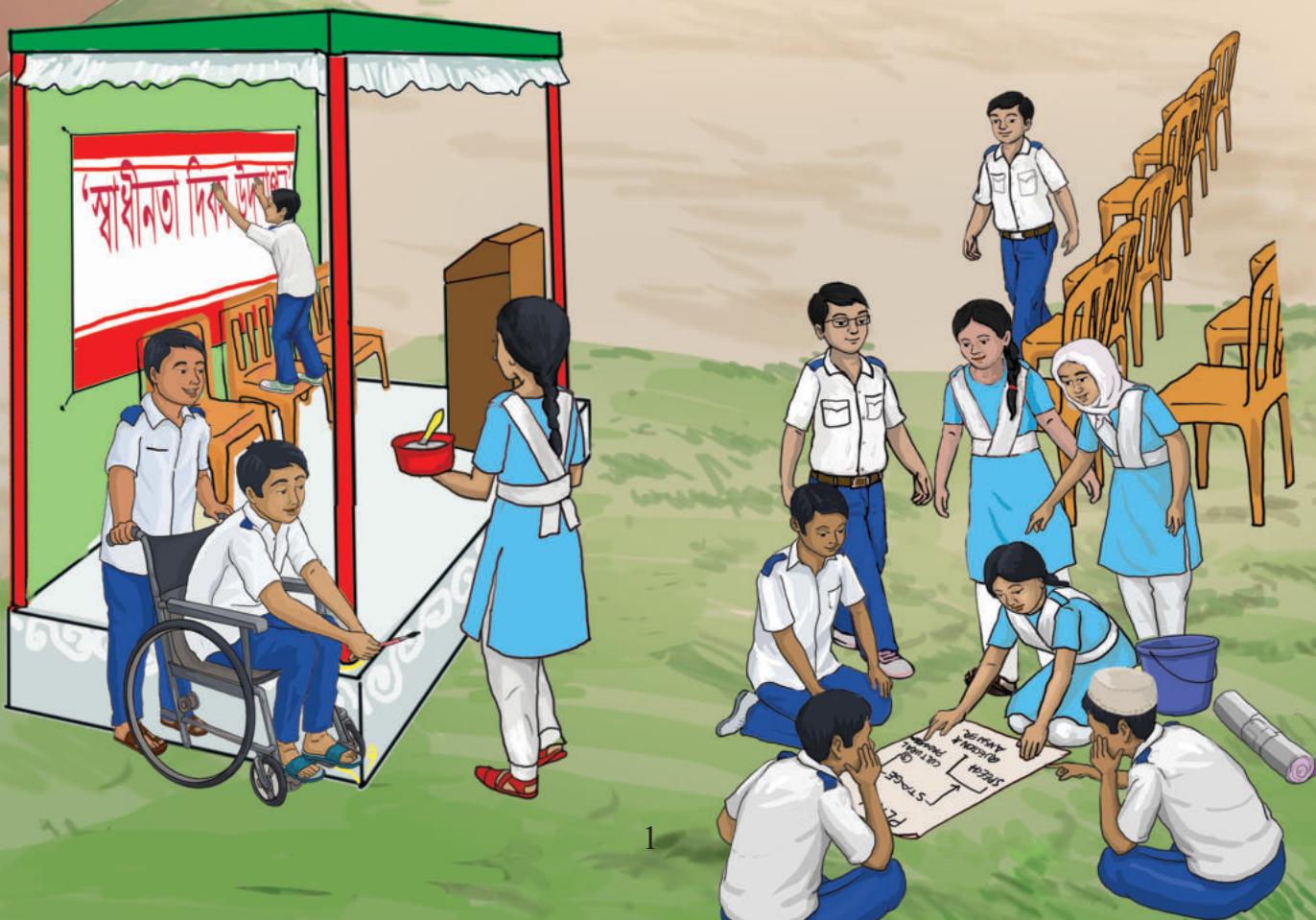
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Exploring Joyful Work

শুদ্ধ হটক, তুচ্ছ হটক, সর্ব সরম-শঙ্কাহীন-
কর্ম মোদের ধর্ম বলি কর্ম করি রাত্রি দিন।

Our tomorrow depends on what we are doing today. That is why Jatindramohan Bagchi, in his poem, has termed work as a religion. However, in almost all world religions, work has been linked to one of the necessary conditions for bringing good luck. Therefore, we have to work to bring our fortune. But we have to do all the work with interest and spontaneity.



To climb at the peak of a mountain is one of the toughest jobs in the world. Suppose you are very much interested in climbing up a mountain top; and so, you will see that when you get to climb at the peak of a mountain, out of excitement, you will not remember the pain even if you have come across the dangerous path all day long. Rather, the next morning, you will be trying heart and soul to reach your goal keeping aside the heavy ice and cold wave of the mountain. Despite this physical hardship of climbing a mountain, no tiredness or stress can touch you due to your excitement. That means, if there are passions and interests towards a work, these can automatically prepare the body to withstand any troubles. So, after busy and hard work, we can never say at the end of the day that 'we are feeling extremely tired'; rather we must ask ourselves, 'How much tired don't we feel at all?' In such cases, the level of oxygen in the blood will be normalised naturally and mental stress will be removed.

'নিজ হাতে করি কাজ, নেই তাতে কোনো লাজ'- We all remember this line, don't we? If we do work all by ourselves, we all believe that along with an increase in self-confidence, peace prevails in the family. Similarly, it will become a blessing for us in spending time in school if we do things regularly which are necessary to keep the environment of the school beautiful and pleasant. In this way, we will become habituated to responsible behaviour towards society by doing our assigned duties in our small area. Our needs as an individual in society will then be increased; and for this, at some point in time, there will be an upward trend in our acceptability. We all want to walk along this path.

Table 1.1: Looking back

'My own work' that I do regularly	
'The family work' that I do regularly	
'School work' that I do regularly	
'Social work' that I do regularly	
Guardian's opinion and Signature:	What I feel while doing regular work.

We have already known by now that one of the important family works is to assist them in financial affairs. We can help a family in their economic activities in many ways: for example, we can minimize some expenditure by ironing our clothes by ourselves instead of sending them to shop; expenses on domestic help will reduce if we can do various family work by ourselves; we can save costs by walking the roads with a shorter distance on foot or we may reduce some expenses if we stop buying unnecessary things. For this, some money is saved, which helps the family financially. Besides these, there are a few more works, such as making designs on clothes, making food items like pita/pickles/snacks/handicrafts/cards/ornaments etc. and selling them online; producing and selling fertilizers from household wastes, creating online content, making appropriate use/re-use of old household things, becoming economical in using gas, water and electricity at home etc. We can contribute to the earnings of a family by doing this type of variety of work. In class seven, we planned income-generating activities for families and also took initiatives for implementation based on that plan. This year also, we will make a plan and implement this.



Individual work

Complete the list by identifying economic activities which you do to help your family and find out their assumed monetary value (week/month wise).

Table 1.2: List of helpful work to rise family income

Income-related work	Possible income (Assumed monetary value)

Scene-1. Stitching of Nakshi Kantha

Jamil, a student from Sherpur, and his elder sister, learned stitching of nakshi kantha from their mother last year. In their free time, they have decorated paper-made tissue box with small pieces of cloth with a little design on it and pasted it with glue. In this way, by making various products like file covers, pen stands, wall decors, holding bags etc., they have posted pictures of these on their mothers' social media page. Orders from the buyers keep coming every day on the page. The popularity of their page has increased in the last six months. In this way, they now help their parents financially.



Figure 1.1: Selling products online by a small entrepreneur



Group work

Like scene-1, find out some products, cultures or traditions that are common and vastly used in your area. Are there anything among these from which a person of your age, if wishes, can create any new ideas and can help increase the financial income of his/her family? Make such a list through group discussion.

In the previous class, we learned about family-related income expenditure and budget. A family budget is a plan of a family-related income expenditure, which means, the expression or the presentation of a planning of an area of family expenses based on the source of income and need is known as the family budget. A family budget creates interest in savings and any kind of savings increases investments. From investment, we get regular income which brings financial solvency to our family. That is why, like the previous year, we will prepare a regular budget for each month this year; we will check this at the end of the month and submit it to the teacher.

Family Stock Management

Scene 2: Stocktaking

Mukta went to her grandfather's house with her parents yesterday. It became very late at night to return to her city residence. Mukta's mother started tidying up the bed on entering the house. Her father went to the kitchen to cook rice. But as he opened the lid of the container, he found no rice in it. He could recall that Mukta's mother, a day before the visit, reminded him to buy rice; but he simply forgot because of work stress. What else to do? Then the father and daughter went together to make some bread. Another problem came up there- they could not find any salt even after a long search. But, Mukta's father confirmed that he bought salt twice in that month. But the salt was missing! At last, they had to eat the saltless bread with the soup of meat brought from the grandfather's house.



Group work

Scene-2. Read carefully. Arrange the answers to the following questions after discussing them with all-

- Why do you think such an incident happened at Mukta's residence?
- What to do to get rid of such problems?
- What are the problems if necessary products of a family are bought frequently?
- What are the benefits if essential products of a family are bought week/month wise?

If we notice the family picture of Mukta, we can see that because they do not have any plans for daily products for family use, they often have to face such situations. A family can easily avoid such problems through family storage management.

The term 'Family storage management' mainly consists of two ideas, one is 'Family

storage' and the other is 'Management'. Here, 'family storage' means adequate storage of necessary products, which a family uses. Among these products are rice, lentils, flour, salt, oil, onion, chilly, fish, meat, vegetables etc. And 'Management' means the appropriate collection or buying, storage and usage of daily essential products. To do the proper management, we have to be careful that one or more daily essential products (rice, lintel soup, flour, maida, salt, oil, onion, spices etc.) must not run out completely lest there should be problems with preparing the meals for the family. On the other hand, the rotting of one or more necessary stuff due to over-storage must not cause financial loss. Besides that, families should not face monetary problems in buying other necessary goods as they spend a big amount of money for buying one or more daily essential products which they store in excess. One of the key conditions of proper management is to be always economical in using daily essential goods. Considering the financial capability and needs of a family, we may do a weekly or monthly storage management plan. At the beginning of storage management, we need to guess how much and which daily usable products, a family requires at a certain point in time. After that, if possible, we may collect or buy the products as a whole. Buying things in this way, on the one hand, we can buy many items relatively at a lesser price; on the other hand, we can minimise transport costs, and save time by purchasing many goods at a time.

Things to Consider in Family Storage Management

We can easily solve the problem of the storage shortage or excess storage of the daily used product of our family, by considering some issues regarding family store management.

a) To use the product earlier which is brought earlier (in case of quickly perishable products): Some daily necessary products perish quickly (for example vegetables, fish-meat) As a result, in the case of these types of products, we have to use those which are brought earlier. But we have to arrange the same types of daily necessary products in layers in a suitable place or room so that there is a similarity between the list and the real arrangement and each product can be easily found when necessary.

b) To fix how much product to buy by keeping what amount of product in store: If we observe, we can see that we don't need the amount of salt or oil as much as we need the amount of rice or vegetable. So, we have to calculate how much product we have to store before buying the rest of the amount needed for a month for each type of product. In that case, the amount will vary for different products.

c. To purchase a large amount or wholesale: We know, if we buy a product in a large amount, we can have a discount, the same transport expense and time. So, we have to thank buying the daily necessary products by considering the amount, demand and financial solvency of the family.



Figure 1.2: Storage for one month stacked in a kitchen.

d. To fix what amount of product to buy again: In this case, we have to focus on what amount of product to be bought so that products are not wasted by over storage. Besides, we have to keep in mind that we will not store less than we need so that it does not hamper our daily family activities. So we have to fix what amount to buy again considering the daily family needs, cost of the product, cost of storage, amount of discount etc. This method to determine net requirements by fixing the quantity is called "Fixed Order Quantity."



Individual work

Make a list of daily necessary supplies for your family for one week according to the table given in the next page. Calculate the amount of each product is needed for a week. Finally, calculate how much/what amount of products are to buy to meet the needs for a week. Calculate the amount of money to buy each product. You have to do it with the help of your guardians. Draw the table on your life and livelihood copy and make as many rows as you need.

Table 1.3: Weekly family storage plan

SI.	Product name	Weekly needs	Amount stored	Amount to buy	Price?
1.					
2.					
3.					
4.					
5.					
Total price					

Let's make a family stock ledger

Stack ledger by such a list where it is enlisted or mentioned how much is stored of each product, what amount of products is to buy and to use the perishable products earlier etc. If a family regularly follows the stack ledger, then there will be no possibility of want of products or wastage of products due to over-storage. Considering the perishability of products, we can make and use separate ledgers of quickly perishable products and other products (products which are not quickly perishable).

Scene 3: Rony's family stock

Parents, grandparents and two brothers and sisters are the members of Rony's family. For a few months, Rony calculates the store of daily products of their family and in the meantime the family is getting the benefit of it, getting a clear idea of the demand of each product too. He keeps a monthly record as a stock ledger and tries to buy all other products except quickly perishable ones at the beginning of the month to save money and time. But if guests come or for other reasons, there is a shortage of any particular product, his family buys that product to run for the rest of the days of the month. According to the demand of January 2024, the partial stock ledger of Rony's family (of four daily products) is given below:

For the month of January 2024
 Number of family members-6
 Family stock ledger
 (Balance up to 20 January, 2024)

SI.	Name of daily necessities	Stock at beginning	Newly bought	Current stock	Expected stock	Will I take the initiative of a new purchase?	Quantity of items to be purchased again?	Comments
1	Rice	2.00 kg	20.00 kg	2.00 kg	10.00 kg	Yes	8.00 kg	As the present stock is less than the expected stock, the initiative should be taken to a new purchase, which will be 8 kg in quantity.
2	Pulse	0.50 kg	2.50 kg	1.25 kg	1.00 kg	No	-	No need for a new purchase as the present stock is more than expected.
3	Onion	1.00 kg	4.00 kg	1.50 kg	1.50 kg	No	-	No need for a new purchase as the present stock and expected stock are the same.
4	Sugar	0.50 kg	1.50 kg	0.50 kg	1.00 kg	Yes	0.50 kg	Need to take the initiative for buying 0.50 kg (1.00-0.50) as the present stock is less than the expected stock.

Nowadays our daily activities have increased multiple times. Owing to our busy schedules, we often have to suffer while buying things either from marketplaces or ordering them online. So we can take help from the family stock ledger to make our work easier and more organised. We can ensure the exact supply of required products by applying the techniques of family stock management. In the case of family stock, we will never make over stock. Overstock makes artificial crises of products in the market which is harmful for everyone.



Individual work

Let's make a stock ledger

Make a monthly/weekly family ledger stock with the help of your family members and follow it.

Conducting School-based Event Management

We observe so many programmes held in our educational institution, home, neighbourhood and in relatives' houses. Examples of such programmes include annual sports competitions, pohela boishakh, celebrations of national days, marriage ceremonies, 'gaye holud', birthdays, seminars, symposiums, sharing business ideas, reception, prize-giving ceremonies, trade fairs, unveiling ceremonies of books, worships, Milad mahfil, cultural evening, study tour, picnic, camping, rally, distribution of relief etc. Depending on the type of programmes it needs huge planning to arrange the programme successfully. It requires special skills to arrange such programmes successfully. For each programme, one needs to consider its uniqueness, dignity, the expectation of the participants, the purpose of the organisers etc. It needs an excellent and perfect plan and to conduct all activities according to the plan to make a successful programme. Nowadays this type of arrangement or management is called 'Event management'. Due to our busy lives, for arranging this kind of programme, a new profession called 'event management' has got popularity nowadays. The purpose of this profession is to organise the programme nicely and effectively with creative ideas. Now let's see the two arrangements:

Parents' meeting 1

Guardians came to the institution in the morning on the parents' meeting day. But they didn't understand where to sit. Some asked the guards, some asked the students. Many guardians stood at the back of the room for insufficient seat arrangement. It was supposed to start at 9:00 am but it started at 10:30 am. The teacher alone could not finish answering all the questions. Everyone was expressing dissatisfaction. Many were

leaving the place before it ended up. Many were absent when there was a discussion on students' attendance and competence. The meeting ended up with quite a chaotic situation.

Parents' meeting-2

On the parent's meeting day at the entrance of the school premises, some students welcomed the parents and showed them where to sit on. The room in which the meeting would take place was also displayed on the notice board. No undisciplined situation occurred as the seats were arranged according to the number of guardians allocated in the classroom. Once all the guardian took their seats, the headmaster along with the class teacher welcomed all and started the meeting on time. At the beginning of the meeting, the class teacher explained the purpose of the meeting. After that, the guardians were informed of students' attendance and other activities. The guardians were invited to ask questions about any relevant issues and each question was answered one after another. The meeting ended up within the fixed time. The meeting was announced closed after thanksgiving.



Group work

Which of the two parent meetings above do you consider to be successful? And why? What kind of mismanagement was there in the first one? Which particular areas need to be focused on for arranging an excellent parent meeting?

Things to Consider for Event Management

Event management is a detailed plan or process of arranging a programme. In this type of activity, it is possible to present an individual's skill creatively. The points that require attention while arranging such programmes are given below:

- **Taking effective decisions through group communication:** Event management is a group activity, so there should be good understanding among members. The group leader must be wise and skilled. Responsibilities should be distributed among group members based on each member's reliability and dutifulness and his/her ability to accomplish a task smoothly. Especially it is to be monitored that all the members are devoted and active to their tasks. It is also to be monitored that there is no gap in communication (communication gap).
- **Bringing innovation in arrangement:** There should be reflections of creativity in the arrangement of any programme irrespective of its type. Special care should be taken on ensuring innovations in presentation, dignity and anchoring the programme so that the audience does not get bored but rather finds interest and variety.



Figure 1.3: An event in progress in school

- **Planning the programme according to needs/goals:** Each type of event is arranged to meet a specific type of demand or purpose. For example, the stage designs of the Freshers' Reception, Annual Milad Mahfil or Saraswati puja will not be the same for sure. We have to understand well the requirements of the programme and plan accordingly to decorate and execute them. The plan needs to be reviewed again and again to check if anything is left out of it.
- **Drawing up an economic budget and executing:** We have to consider the event as our own event. Careful attention is needed to avoid extra expenses or unnecessary expenses. We have to adopt the techniques of presenting a decent programme within a moderate budget so that the organizers do not get dissatisfied or uninterested.
- **Ensuring safety and discipline:** This is an essential component of an event which must be ensured. Special security measures for very important (VIP) guests (if any) should be taken. Safety measures should be ensured regarding stage decoration, electric connections, drinking water, entrance, seat plan, and exit points and these must be shown on the plan on stickers, gateway icons etc. for ensuring discipline in movements, entrances, seating arrangements and exits.

- **Completing the event in time:** Attention should be paid so that the event is completed nicely within the due time. There should be conventions for starting and finishing the events timely. It will raise people's trust.
- **Ensuring the permission and availability of required/logistic support:** Some events require permission- events such as study tours, camping etc. need collecting parents/guardians' letters of permission. It may also be the case that the field or auditorium selected for the event belongs to another institution. In that case, their permission is required. And some events might also require sending invitation cards to the guests.
- **Ensuring cleanliness and waste management:** This is a very important part of an event that we often forget to do. We have to clean the trash/garbage bins spread over here and there, the room, the field or the surrounding right after the event. The organisers have to leave the place after ensuring total cleanliness including the returns of chairs and tables to their specific spots. An event can not be claimed to be completed leaving the spot dirty or messy. The image of the event management team depends on this.

There are many things besides the above-mentioned tasks which are necessary to run an excellent event. Good organization, discipline and overall control are essential to complete a successful and nice event. The skills that one needs to practise for event management are as follows:

Communication Skill: It is an important skill for event management. Both verbal and written skills are required to arrange an event. One needs to be an expert in communication for speaking face to face or over the telephone, making and distributing invitation letters, collecting and delivering all kinds of information related to the event, circulating the event and convincing people toward a decision that has been made out of consensus. For example, sending invitation letters to the guardians for parents' meetings, confirming their attendance over the phone, and in special cases, convincing them to attend the meeting, hiring chairs from decorators by bargaining if there is a shortage of chairs.

Organisation and time management skills: Organising skill is vital for event management. The success of an event does not depend on a particular person or an individual. The event is flawlessly worked out by combining the responsibilities of all group members. So, one has to be able to engage all in their respective tasks. Besides, one has to be skilled in having the task done by ensuring the best use of time within a given timeframe.

Budget management skill: It is a very vital skill. One has to get the skill of drafting the

budget following the event design while maintaining and running accounts for buying or renting materials or other stuff, paying for conveyance, paying for labourer wages and special honorarium etc.

Creativity and innovative skill: One must have to be creative in the arrangement and direction of an event. The success of an event depends on the innovative and attractive presentation, decoration and discipline. Innovative skill and creativity development is possible through regular practice.

We will be able to know the details about it from different courses related to it or during higher education. The experience we gather through the journey of arranging different events opens the field of expressing our thoughts or ideas in organised ways. Excellent development of multi-talent is seen when many responsibilities are distributed, controlled and coordinated together. We can set up an event planner in our school with the help of teachers. Recently it is getting popularity as a creative and budding profession. In this profession, there is a huge opportunity to demonstrate an individual's creativity, talent and skill. Some popular designations of this profession are event planner, event manager, event organizer, event co-ordinator etc.

You already have been informed that there are some events to create public awareness which play a vital role to remove superstition and ignorance from society and to ensure safety and security during different disasters. Now we will work on such an awareness-raising event.



Project work

Fire drill: Arrange a fire drill in school. Develop a nice plan with your organizational head, other teachers and students. You can arrange a fire drill in your school with the help of BNCC, Rover Scouts and Girls' Guides (if possible, you can engage a firefighter by properly communicating with the fire service institute through your organizational head).

Hints for project work

You can work by getting into groups under the supervision of a teacher to complete the fire drill project successfully. For example-

- Collecting information and trainers team
- Communication and disciplinary team
- Budget and equipment preparation team
- Planning and overall direction team

e) Reporters team

Each team makes a plan and lists the responsibility of team members. Prepare yourselves as a trainer by collecting information/data following the plan. Try to take help from the Fire Service/Rover Scouts/Girls' Guide if necessary. You can watch the video of a fire drill. You may have some ideas from "**Let's know some information**" of this chapter. Make a list of possible equipment that might be required. Try to collect them. Try to identify any lack of coordination by holding a dummy rehearsal/drill. Then take the final preparation by making a more flawless plan and supervision. On the final day, surprise all by presenting the best of your efforts. The reporter team will keep a record of everything from the first day to the final day and after the drill is over share it with all and submit the full report to the teacher including opinions or feedback from others.



Figure 1.4: Fire drill under the direction of students' direction



Individual work

Mention the strengths and weaknesses of conducting fire drills.

Table 1.4: Evaluation of the event

Strength	Weakness
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Make a list of how many awareness events you can conduct in groups as the students of the school (hints: cleanliness awareness campaign, tree plantation campaign, a rally protesting early marriage.....etc.). There is a famous quote, "Only those who find pleasure in work are fortunate" from a foreign play "Show Boat". And our task/job will be pleasant only when there is interest, no boredom in the work. Because boredom creates tiredness and fatigue. The way to remove the monotony of work is to make it enjoyable and bring variety to it.

Research shows that blood pressure and level of oxygen decrease in the body along with uneasiness, headache, and mood swing when there is an apathy towards work. On the other hand, blood pressure and oxygen intake get normal when we find interest and pleasure in work. So, one needs to find new ideas or concepts for doing work so that it simultaneously removes tiredness. That's why let's live in pleasure and work with pleasure.



Self-evaluation

a) What steps you have taken for stock management of your family?

-
-
-
-

b) Suppose, you have got the responsibility to arrange a get-together with your mother's childhood friends. Make/Draw a plan of how you will run the event to present them with a day full of pleasant atmosphere.

c) Make a programme schedule for observing '21st February, International Mother Language Day' with due admiration in your school.

What we have learnt in this chapter.....[put tick (✓) mark in the applicable place]

SI.	Tasks	Not done (1)	Partially done (3)	Well done (5)
1	Completing a review chart			
2	Collaborative work list to increase family income			
3	Create an idea using any traditional product in your locality to help your family financially.			
4	Developing the concept of stock management			
5	Effective initiatives for family stock management			
6	To make a family stock ledger			
7	Developing the concept of event management			
8	Active participation in 'Fire drills'			
Total score: 40		My score:		
Comment of the Guardian:				

New learning in this chapter

Teacher's remark

Let's Know Some Information

(For a Fire drill, you may need to collect some information from the nearby Fire service. Here is given some general information for the benefit of your task)

The purpose of the Fire drill

The drill is arranged to ensure that everyone knows how to exit safely as quickly as possible in case of a fire or other emergency. This type of drill is conducted to secure the highest safety of the home, house, institution and ourselves from fire and fire accidents and to maintain a safe environment everywhere. The purpose of a Fire drill is to keep preparation for any emergency like a fire incident or any other accident and take preventive measures for any unexpected incident. Besides we need to know the uses of necessary machinery and safety equipment to control the fire safely which we can learn from the Fire drill.

Fire Fighters for a fire drill

The firefighters are divided into three groups for extinguishing fire, executing rescue and first aid of the injured. For example Firefighters, Rescue Team, and First Aid Team.

Firefighters: They wear a yellow apron written "Fire" in red colour on its back. Primarily it extinguishes fire.

Rescue Team: They wear yellow apron written 'Rescue' in red colour on its back. This team rescues the injured.

First Aid Team: They wear white coloured aprons with the words 'First Aid' printed in red colour on the back. This team provides first aid to the injured on the spot of the incident.

Things to do if a fire takes place

- Not to get nervous
- To call the emergency number (999) and the fire service (16163)
- To turn off the main switch in case of a fire incident, not to use water on oily substances to put off the fire.

- To cover the body with a wet blanket or to tumble down/roll about on the floor if there is fire on clothes.
- It's dangerous to use water for fire from oily substances. We have to use portable foam-type fire extinguishers or dry sand or wet clothes.
- Supreme priority should be given to saving life rather than shifting valuable products/stuff.
- The fact of decency of the victim should be under consideration during the procedure of rescue.
- We have to be careful about smoke because many deaths occur due to the choking caused by smoke.

Cautions

- We have to keep a bucket of sand in the kitchen or within reach in each house for the sake of security.
- We have to keep fire extinguishers on each floor of the house and teach the use of it to all. Fire extinguishers should have to be changed before they expire.
- There must be fire exits in a multi storied building.
- To stick the number of fire services in place so that anybody can see it easily.
- Unnecessary curious gathering hinders the movement of the vehicles of fire service during a fire. It should be avoided.

Pathways to Skills Development

আসছে নতুন দিন, আসছে নতুন পেশা
কারিগরির ভূবন আমায় দেখায় স্পন্ধ-আশা
কাজের মাঝে আত্মত্বপ্তি, কাজের মাঝে ভক্তি
সচল হব দক্ষতায়, আসবে অর্থনৈতিক মুক্তি।

In addition to study, we can gain skills on various tasks from different institutions around the country. However, our aims should not only be to earn or increase reputation through these acquired skills! We have to give highest focus on how to utilize these skills for the welfare of the country. Only then, our/skills can enlighten us all.



New needs for changing profession

You must have noticed that with the time, there has been a continuous change in the nature of work and professions. There are times when fried puffed rice and pitha were prepared in our home with a festive mood. A week-long customs and decoration used to continue during wedding, organizing dalas of gaye holud, painting alpana on clay pots, decorating hands of the bride with henna along with joyous songs and designing stage! Our mother, aunts, sisters and sisters in law used to do such activities together. Now, all of them remain busy at office, court, factories or at their work place. As a result, puffed rice making has gone to factories, packaged puffed rice are now available in the shelves of our neighbourhood groceries. Similarly, the responsibilities of decorating the home have started shifting to the event management organizations.

Puffed rice Selling: Once in the past



Puffed rice Salling: Nowadays



Figure 2.1: Transformation of occupation

In this way the area of work such as supplying of cake, pitha or afternoon meal, practising folk culture, making and marketing of folk products, producing and selling of plant seedlings of both home and abroad, nursing and training on pets, displaying of fashion house online, creating online contents etc. are growing fast worldwide. These work, and positions and professions related to service providers are being created as city life becomes busier. Such new and innovative field of work has been growing from our necessity or demand.

Now, as per our time limit, we are going to find a known person from our locality or anybody from our family/relatives to see whether they are working in such changing professions. We will listen to their experiences about these new types of work or professions upon discussing with them and fill in the table 2.1.

Table 2.1: Story about new profession

Details of the profession	
Story behind his/her coming to this profession	
How he/she has created an area of work in this profession	
What skills have worked in this profession	
What ethics he/she follows in this profession	
How far is the scope in this profession?	
How is the demand of this profession?	
His/her dream/planning with this profession	

Skill changes in occupation as per demands

You must have learnt by now that doing any task properly or perfectly within the given time is considered as one's skills in that task. Based on the 4th industrial revolution, extensive changes have come in education and skills. The field of existing platforms and skills is changing overnight. The rate of change in the last decade is higher than in the past few decades. Some professions or jobs have fallen under threat. On the other hand, new areas are emerging in professional fields. Skills are getting priority in all cases like jobs, business and self-employment. "Not only credential or certificate, rather what I am capable of doing" – is the key factor to consider in the current world market.



Figure 2.2: An air of change in the profession

We have seen even a decade ago that many people used to sell their products in the alleys and lanes by calling aloud but now, we can see that they use small or large rechargeable mikes. As a result, they don't need to shout out and for this, the stress on their voice has been reduced. Such kinds of changes can be found in other professions too. Such as, the barber now cuts hair with a trimmer instead of scissors. Besides that, many technological aspects have been added to this profession that has opened up more opportunities for a salon worker. If you notice a little, you can also see the changes in the professions of the people around us. You must have learned many things in classes six and seven on this topic; here we will discuss in detail a little bit more.

These changes in professions are more visible in the international domain. For example, a greater touch of modernity is seen in the agricultural work of different countries of the world. Farmers use drones in the cultivation sector for spraying fertilizers and insecticides. In various countries, vehicle drivers can search for a location and their passengers' destinations via mobile apps.

Developed countries are using modern tools and robots in the field of industries. The labourer who used to do the packaging by sitting, he/she is conducting a similar task by utilizing robots. New professions begin to emerge from the time of the Corona outbreak. Home delivery is one of the best among these. And focusing on this home delivery approach, the huge market of online-based businesses has developed around the world.



Group work

Change in skills

Analyse the workplace and tasks of a professional who works at a salon or parlour. Observe the following table considering the examples what changes can be added. Then choose another known work area of yours and identify the nature of work and changes in skills.

Table 2.2: Changes in the nature of work and skills

Name of the profession	Change in the nature of work	Change in skills
Salon or parlour worker	<ul style="list-style-type: none"> • Use of various tools such as- trimmer, steam machine etc. • Use of various cosmetic items such as- expansion of work like hair implants and hair growth • Providing services by using various mobile applications in developed countries 	<ul style="list-style-type: none"> • Skills in using modern tools • Skills in learning about various cosmetic items and their proper application • Skills in using mobile and the internet. Skill development related to new hairstyles and hair setting through regular training

Case-1: Grooming of Sanjida as an agricultural scientist

Quite a few years back today, Sanjida lived in a small village. Most villagers were farmers. They relied on traditional cultivation methods which was not enough to face the challenges related to modern climate change. As a result, for the last few years, crops were not good. This made her concerned. Sanjida thought that if the farmers of her village could cultivate knowing the agricultural science, then they did not have to face such difficulties for sure. That is why, one day she asked her teacher, 'What does an agriculture scientist do, how to become an agro-scientist?'

Giving a curious look at her, the teacher answered, 'An agro-scientist studies agriculture and science which include crop production, genetics of plants, soil science, pest control, animal reproduction and many other subjects.' Hearing the teacher, Sanjida felt a deep interest inside her and she understood that she would have to become an agriculture scientist to help the farmers of her village and to bring success to their dreams of developing their crops.

After returning from school, she shared her plan with her parents. The parents supported her dream. Sanjida started collecting information from different sources to know various facts about agriculture. She came to know that to become a professional agricultural scientist, higher education is necessary. Sanjida was admitted to the college after completing her school. After that, she studied soil science, plant physiology, crop management and other agro-related subjects in the undergraduate programme of the Agriculture University. She also completed her higher studies programme on time. Then she kept applying for scholarships to various Universities for further studying agricultural subjects, and for conducting research, and finally, she got an opportunity to get enrolled in a renowned Agricultural University. There she gathered a huge experience in the field of agriculture by conducting in-hand research with her professors on soil, crop and seed production.

After returning home, Sanjida planned to do more research on agriculture. According to her plan, she conducted research with assistance from Agricultural University on sustainable agriculture and the application of modern technology in agriculture; and she presented her findings at various conferences.

At last, Sanjida started her professional life as an agriculture scientist. She came back to her own village with her higher education, research experience, new ideas and innovative cultivation method. As per her dream, she started working with the farmers closely and helped them to use modern technology to develop their crops. Many appreciated Sanjida's contribution, and she got many rewards for her work. In this way, Sanjida proved that anyone could bring changes to society through relevant higher studies by dint of proper guidelines and stronger commitment.



Group work

Pathways to be skilled

What preparations did Sanjida take and what type of educational degree she had to obtain to become a scientist? Discuss in a group which institutions she approached for training and research.

An air of change in the profession

Our garment industry is one of the largest export-oriented industries. To let these industries march ahead, professionals or workers do thousands of works with great skills, such as sewing machine operation, fabric cutting, pattern making, quality control, inspection and packaging. Even, there are work like research, design and development where one can implement the task by creating a new design. Besides that, there are also job opportunities in the area of management, sales and marketing. Again, many have to work to supply, distribute and monitor the clothes to retail shops.

However, garment industries are changing fast due to technology. Some work has already been automated, which means, machines are working in place of humans. For example, robots are sewing clothes with speed and perfection. Now a machine can cut more than the number of clothes which ten cutting masters could cut in a day in the past. So, we can assume that in future many tasks of the workers will be under the control of machines. Alongside automation, technological improvement has brought a change in the methods of dress-making and selling. For example, 3-D printing technology is used before production to make a prototype design of the dress. This helps the designers to coordinate with speed and skills. Technology has brought changes in the process of sales of garments. For example, online shopping is increasing gradually and customers know in advance how they might look in a dress by using virtual try-on technology.

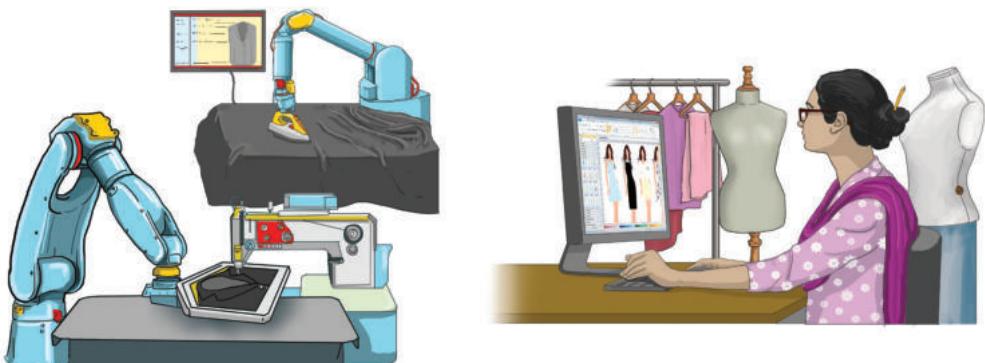


Figure 2.3: Change in the work pattern and skills in the garment industries

Due to the continuous growth of the garment industries, some new employment opportunities will be created that were not present in the past such as programming and maintenance of technology-based machines. More opportunities in design and development will be opened because garment industries want to develop unique and creative products. Besides that, there may be more employment opportunities in e-commerce. Because more people will buy online in future and organisations will develop their new medium for marketing and sales of their products. Some fields of work and professions have already been closed. Such as; floor in-charge, supervisor, cutting master etc.

For those who are interested in working in the garment industry, it is very important to know how these industries are changing. They can prepare themselves for future jobs by keeping pace with new technologies and trends, and they can decide on their career.



Figure 2.4: Skill development and promotion

Suppose, Tuli Gomes started working in the garments after passing SSC. She needed to develop new skills at her workplace after five years. So, Tuli with the approval from her office, got admitted to a technical institution to gain the necessary skills and she got a certificate as recognition. When she returned to her office, she got promoted as a designer from her organization.



Individual work

Other than the examples from the table, select any professions from the garment industries. Discuss with a person from that profession and fill in the table below by collecting data from other sources.

Table 2.3: Change in skills in various professions

Field of the profession	Name of the profession	Description of the current work	Future area of the profession	Change in skills
Garments industry	Sewing operator	Use of sewing machine	Sewing by robot	Managing robots and programming
	Dress sales worker	Conducting distribution and sales at the shop	Conducting distribution and sales online	Use of the internet, managing sales website

Variations in the sector-wise profession and skills

Agriculture

Developed countries in the world as well as our country are giving greater importance to the agriculture sector. There are huge employment opportunities in the agriculture sector in our labour market. Moreover, in the foreign or international labour market, there are demands for various professions relating to this sector such as experienced farmers, agricultural scientists, crop managers, veterinarians, environmental analysts, food processors etc. Let us know what skills a farmer requires to become an experienced farmer. First, he/she needs knowledge and skills to prepare land for crop production. Other than that, it is very important to have skills for organic and planned ways of producing crops, protection of crops through modern technology, application method of fertilizer and pesticide, storing crops and overall marketing. On the other hand, to become an agriculturist, it is essential to have knowledge of new agricultural innovations, agriculture methods,



Figure 2.5: Change in agricultural-based professional skills.

crop production and management process. Besides this, it is necessary to have enough knowledge of agricultural technology, financial management and planning skills.

Technology

We can see that with the growth of technology, there is an increased demand for technology-based jobs both at home and abroad. In connection with this, there is a huge need among present and future desired jobs like technological service, graphic designing, programming, cyber security, data entry, web development etc. Experienced graphic designers prepare audio-visual content for the information sector in a fancy and attractive way by using other various tools and mediums including print, film, electronic, digital, visual and audio. Graphic designers create graphics, beautiful paintings, special effects, animations and other visuals for use in publications and advertisements computer games, movies and musical videos. In this area, almost every day, new software and apps are added which they have to be



Image 2.6: Change in technology-based professional skills

aware of and they need to develop skills to work with this new software. At present, this is a very competitive market. The most important skill is to be able to work by coping with the updated technology to keep his/her existence in this market.

Service

To match the growth of technology, there has come a big change in the service-oriented profession like teaching. Traditional jug-mug or chalk-talk methods can no longer survive with the current education system. Teachers have to increase their knowledge a lot to

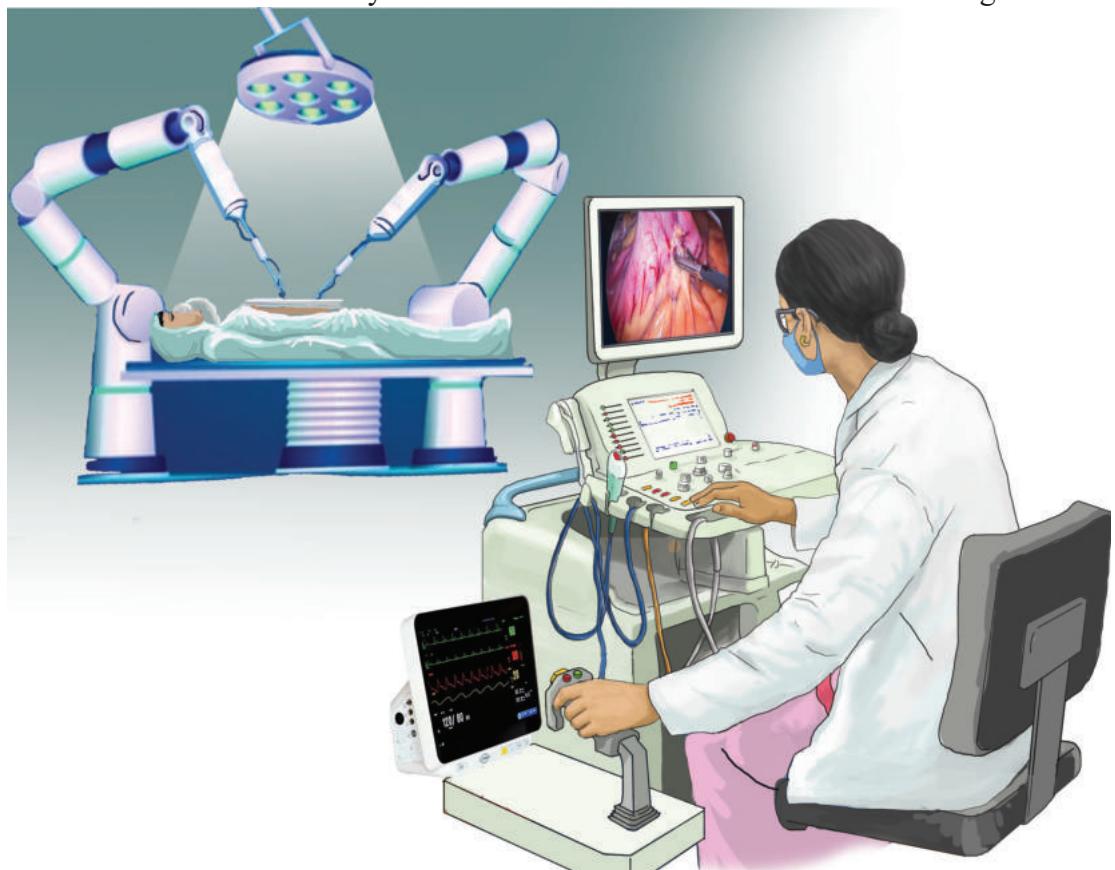


Figure 2.7: Change in service-based professional skills

answer curious questions from the students of a new generation. Complex information and theories need to be made visible through multimedia. Online classes need to be taken, assignments have to be given with the help of online meeting platforms and various project-related instructions need to be given. So, teachers also have to develop skills in knowledge, science and updated technologies. There is also a change in the area of the medical profession. Among these, we can notice a big change in the profession of doctors, nurses, pharmacists, paramedics, caregivers etc. So, to become a skilled doctor, one has to gather huge knowledge and skills in medical science and technology.

Moreover, to do life-saving work, one has to develop skills to control calmness and mental stability. A doctor has to develop skills to operate through a laser ray which in the past, has to be conducted by surgery. To become a pharmacist, one has to have adequate knowledge about medicine production, sales and medicine for various diseases. In addition, one must have the skills to observe and review regularly the most recent research work on medicine. Doctors have to know about nuclear science, physics and chemistry etc. to serve the people. On the other hand, the demand for the housekeeping profession is increasing gradually in the international field. Housekeeping professionals are involved with all the activities related to various internal aspects of their institutions, such as cleanliness, laundry and internal decoration. Those who can show intelligence, smartness and creativity, have a great demand in this type of profession.

Industry

With the increased demand of the production sector, industries grow in all countries. These factories need many engineers. To become an engineer, one needs engineering knowledge and technological skills. Besides this, there are opportunities at the factories for work or jobs in many areas, such as production workers, packaging workers, machine controllers, cleaners etc. Again, plumber and pipefitter professionals work related to construction, supply of liquid and gaseous elements and connecting lines for circulation to different establishments of housing and industrial sectors, repair and maintenance. Plumbing and pipefitting are very important parts of the civil engineering and construction industries. Not only in housing establishments, they also work at all types of industrial factories and development projects including oil refineries or gas fields. A skilled and experienced plumber has a huge demand worldwide.

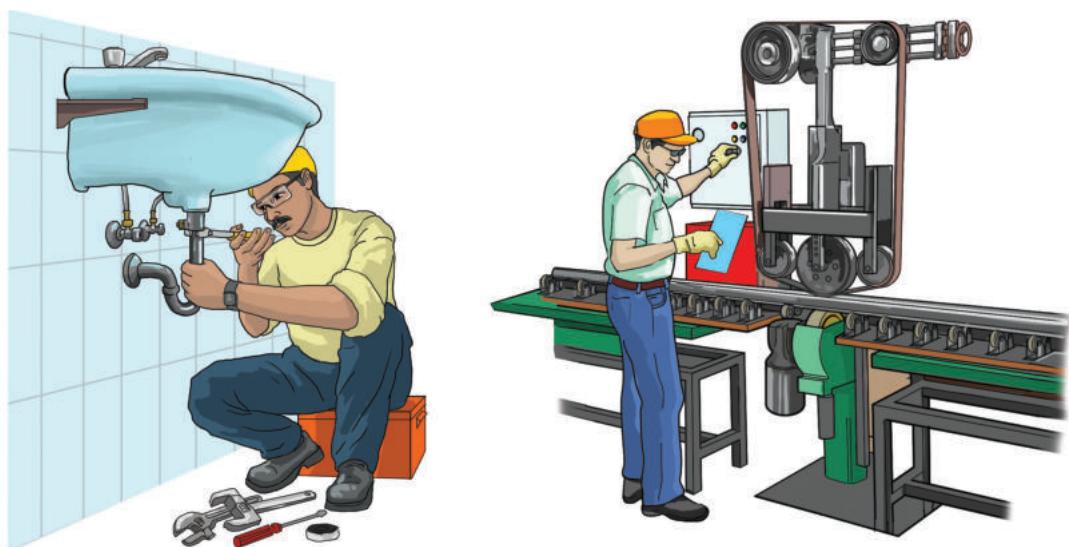


Figure 2.8: Types of the skill of worker in the industrial sector activities



Group work

Write the name of total seven names of different sectors in the table by discussing in groups and identifying the necessary skills for these.

Table 2.4: Necessary skill for profession

SL	Name of professions	Necessary skill
1.	Cleaner	Proper use of vacuum cleaner (carpet, floor cleaners), wipers (floor glass and cleaners) etc.
2.		
3.		
4.		
5.		
6.		
7.		

Skills we need for tomorrow's professions

From the earlier discussion, we have got some ideas about the continuous changes in the world of jobs. It is very important to realize how these changes can influence our future workplace or job opportunities. A great change we have noticed with the increasing use of technology in the workplace. Machine is doing some tasks now which were done in hand before. According to World Economic Forum, it is assumed that 85 million jobs may not exist by 2025 due to technological changes. They also have predicted that new job fields can be created in the sectors like health service, renewable energy, technology and education. For example, opportunities for new jobs are being created like software development in the field of technology, cyber security and data analysis. Therefore, more job opportunities are being created, some jobs are being lost though. It is very important to develop both fundamental and technological skills to face the changes in the professions in future.

Fundamental skills

Some skills are needed in all professions which are known as nontechnological skills or fundamental skills. Fundamental skill means personal characteristics which lead a person to the right track. Fundamental skills include teamwork, discussion, solving conflicts, communication, critical thinking, creativity, problem-solving, decision-making, planning etc. For example, critical thinking is very important because one can take the right discussion analysing critical situations with this skill. Creativity is a very necessary skill using which one can find innovative solutions to a problem by going beyond conventional ideas. On the other side, communication skill builds the relationship with others. As a result, one's honour, dignity and importance increase at the workplace.

Technical or technological skill

Technological skill is the example of specific knowledge and skill which is necessary for conducting a particular task or solving a problem. For example, the use of medical equipment in the health sector and technological knowledge and skill for the quality treatment of patients is essential. Technological skills are needed for information technology: for example, coding, making software, cyber security etc. are essential for using and implementing technology. Let's take an example of a software engineer. He/she must develop technological skills like coding and different programming languages. Besides this, he/she must have core skills like critical thinking, creativity and collaboration. So, we can say that in the twenty-first century, it is essential for all to have fundamental skills and technological skills to be successful in the workplace.



Individual task

Select a profession for you which may exist in the year 2030. Make a list of skills you should develop for that profession.

Table 2.5: Skills for potential work in 2030

Name of profession	Name of skills
business	Writing business plan
	Writing financial plan
	Making budget
	Analysing the market demand

Introduction to our technical and vocational education

We can see some professionals around us who conduct so many tasks manually, operate machines, supervise, do processing and packaging etc. But do you know where they have studied? From where have they developed the competency and skills of doing these types of tasks? They went to technical and vocational education institutes. Technical education is a training and work-based education involving technology. In this learning method, training is given in a modern and scientific way for the use of tools and machinery of information technology, industry, agriculture and factory. There are many institutions in our country from where these types of competence and skills can be developed. In short, it can be said that Technical and Vocational Education and Training or TVET is a stream of our existing curriculum which helps a student get appropriate knowledge and develop skills to get a job or employment besides learning. They share their experiences and exercise the way to be productive at the workplace. There is an opportunity to learn about the security and well-being of workers and the working environment. In the developed countries a revolution in the field of industry and agriculture has taken place through technical education. Technical education helps increase national income and achieve self-dependency by using and applying modern machinery and equipment in production sectors.

At present, there are 2517 institutions under the Directorate of Technical Education, 98 institutes under the Bureau of Manpower Employment and Training, and about seven thousand private technical education and training institutes in Bangladesh. Besides this, the project of founding a technical school and college, and many more institutions including a women's polytechnic institute in each Upazila is in progress. Technical institutes are known as polytechnic/mono-technic institutes, technical schools and colleges, technical training centres, engineering colleges, technical teachers training colleges, vocational teachers training colleges etc. These institutions conduct different types of short courses and long courses.

Building a career in technical and vocational education

Now, let's know when and how we can get admitted to these institutes. Firstly, we, who like technical knowledge and skills, and who want to enter into the world of profession quickly by learning, can choose technical and vocational education as the foundation. We can get admission in 2 years long SSC vocational course after passing class eight from technical school and college (TSC) and we can get admission in 2 years long vocational course in any TSC after passing SSC. At present, there are 104 TSCs in Bangladesh and projects of founding newer TSCs (329) are in progress. After passing SSC or HSC, any student can get admission in 4 year diploma course in any polytechnic institute. Currently, there are 50 polytechnic institutes in Bangladesh. The Government has taken the initiative to find more 23 new polytechnic institutes. Along with the existing polytechnic institutes, the projects of founding 4 more new polytechnic institutes for women have started in 4 divisions. The projects of 4 more new engineering institutes are in progress. Besides, they are giving skill-based training in short-term courses in 527 registered training organizations. They give national skill certificates after finishing four months of training courses successfully. With this certificate, it is very easy to enter the work field at home and abroad.

Interested learners can take short courses in technical training centres at any time of the year. The interesting thing is that one can get admission to these institutes after passing class eight and he/she can be enrolled in various types of short courses. Now let's hear the story of an engineer named Shimul.

Case 2: Rising of a Shimul

From his childhood, Shimul loves to play with noughts, screws etc. His father dreams that he will be an engineer after growing up. That's why his mother sticks to his study. But Shimul has attraction for other activities. He finds pleasure to fix the broken tap of his house, fitting the tube, tightening the gas lines etc. There are endless complaints from Shimul's parents about it. One of Shimul's cousins named Bashir lives in London. Once he comes to visit Shimul's house. Shimul's mother starts complaining him about all his activities. Being surprised, Bashir asked, "Is it? Then he has a bright future!" Shimul's father frowns and angrily asks, "What does it mean?" Bashir says, "Uncle, admit him to a pipe fitting course in a polytechnic institute. He will be a genius plumber. I will take him to London. In London, a plumber has a huge demand. They are highly paid. He will have a better living than the engineers of our country who pass in a conventional system."

His words touch them. They get Shimul admitted to TSC. He starts studying and practising happily with his fondness. He learns well how to work at national and international standard and starts working in different institutes on contract. Besides, he gets admission to a diploma course in a technical college and continues classes. Not

only that, he starts taking classes as a guest teacher at TSC. He experiments with his design by getting new ideas about it. Within a few days, he starts to train practically some of the boys in his locality to minimize his workload. He not only focuses on work but also trains them on ethics and morality (loyalty, honesty, punctuality) and etiquettes and manners of communication. As a result, a well-educated, righteous, punctual and hardworking/ industrious plumber team is formed. This team has been working for 2 years in his locality and outside of his locality with a reputation. Shimul is now the Managing Director of a plumber company and a great engineer. Many contracts are coming from both online and offline. He earns so much money that even he cannot think of going to his brother Bashir in London. In reply to his brother Bashir's phone call he says, "Now I am popular in my locality; I dream that my company will get huge publicity in the whole country shortly. And after a few days, the invitation will come to my company from abroad. My name and fame will spread internationally along with the name and fame of my company." Telling this he starts smiling with contentment/ satisfaction. As if his dreams are playing with his smile!



Group work

Analyze the case of Shimul and fill up the following table related to different courses of the present technical and vocational education of Bangladesh by collecting and analyzing the information from different sources.

Table 2.6: Technical and vocational education

Name of the courses	Course duration	Type of technical institution
SSC vocationalyears	TSC
HSC vocationalyears

Visiting technical and vocational institutions and searching for the skills of the future

We, along with our fellow students, will visit a technical institution under the supervision of a teacher on the appointed day. The purpose of this visit is to learn what type of skills are practised here at present and find out the future of the institution which means to find out what kinds of skills we need for working in future. We have learnt and practised event management in the last chapter. Using that experience, we will make a site visit checklist (a sample list is given in the appendix/ supplement) by forming a committee under the supervision of a teacher. Then we will complete our visit considering the mentioned information on the checklist. But if the institute is far away in that case, we will visit with our guardian/family on a holiday or students of the same locality may visit (in groups) an institution/organization which works on technical and vocational training.

The factors to consider for making a visit plan:

1. Fixing the date and time
2. Forming a committee
3. Informing the institution about the visit by sending a letter
4. Making a site visit checklist.
5. Planning a feedback session after visiting.
6. Sending a thank letter.



Individual task

Write about your feelings after visiting the institution. You can also write about your plan if you have any about technical and vocational education. If you need, you can submit your plan writing on a separate paper.

In most of the developed countries in the world, much importance is given on the vocational and technical education. Productive sectors create the most employment in the job market in the present world. New industrial sectors are established to deconstruct developed Bangladesh, and big industries of the world are investing here. These modern technological institutions need skilled manpower which can be built by vocational and technical education. Besides, they arrange different courses and training to become an entrepreneur. There are many demands for skilled manpower in any sector of home and abroad. So, we will be advanced on the way to financial prosperity developing our skills through technical and vocational education.



Self-evaluation

- a) Mention how many opportunities for vocational and technical education are there in your locality.

- b) Which technical and vocational jobs are in demand in your locality you think?

- c) Choose a profession for each sector of agriculture, industry and service and mention what kinds of opportunities for higher education are there in our country for the chosen profession.

- d) Suppose, you want to study next in a technical institution. In that case, what type of trade will you choose? What is the reason for choosing the trade? What type of role the trade will play in the future labour market you think?

What we have done in this chapter.....[put tick (✓) mark in the applicable place]

SL	Tasks	Not done (1)	Partially done (2)	Well done (3)
1.	Finding the way to be skilled from case study			
2.	Identifying the type of job and changes in skills			
3.	Searching the future profession and skills in the field of the garments industry			
4.	Identifying the skills of some professions of the service sector, industrial and educational sector			
5.	Identifying the fundamental and technological skills of the professions in the year 2030			
6.	Getting ideas about technical and vocational education			
7.	Getting ideas about the techniques of building (through case study) a career by technical education.			
8.	Visiting technical educational institutions.			
Total score: 40		My score:		
Comment of guardian:				

What we have learnt from this chapter.....**Teacher's comment:**

Let's know some information

The organization which will be inspected has to be selected from your own area. A plan should be made discussing in groups according to the instruction of the teacher. Questionnaire/checklist should be prepared to collect information according to the type of the organization. There might be different types of question as needed. You can have a look at the specimen given here.

Name of the institute:

Date and time:

Name and ID of the group members:

1.	What type of education and training opportunities are there in this institute?	● ●
2.	Students of which level can take training from here?	● ●
3.	Are these skills or occupations selected consistent with the demand of the job market?	● ●
4.	What type of professions the students are entering after achieving the skills and certificate from here?	● ●
5.	What kind of opportunities are there for students in this institution?	● ●
6.	What kind of skills and training will be given importance in future (plan)	● ●
7.	Where are the opportunities for higher education after completing the courses from here?	● ●

Making the Dreams True

তুহিন মেরু পার হয়ে যায়
সন্ধানীরা কিসের আশায়;
হাউই চড়ে চায় যেতে কে চন্দ্রলোকের অচিনপুরেঃ
শুনব আমি, ইঞ্জিত কোন ‘মঙ্গল’ হতে আসছে উড়ে॥

The poet of youth, Kazi Nazrul Islam, wrote these lines many years back! Floating in fantasy and organizing new ideas are the key tasks of poets; on the other hand, scientists keep presenting their dreams of fantasy to us by making them real. Even many things from scientific fantasies have been brought to us in reality by way of their contribution. We need newer skills for both discovering and using these modern technologies.



Our life is changing fast with new discovery and with the touch of technology. These technologies are not created automatically, rather there lie many research works of scientists behind this. For both research work and utilisation of research-oriented technology, we require new skills. And these skills are also changing the nature of our known professions. Do we know, to cope with or to lead the future world, which technological skills we have to achieve? Let us listen to a story.

Living within technology

The elder uncle of Jui is a data science engineer. Data science engineers can forecast anything or give solutions to a complex problem by analysing a lot of information altogether primarily by applying the knowledge of math, statistics and computer science. He has conducted research at a European institution on what kind of risks can come towards the environment and public health due to climate change or overuse of natural resources and what are the ways to deal with these threats. He has come to his country for work. He has brought a small drone for Jui and Robin with which one can take nice pictures, and do the video by flying it with the remote control. However, an interesting thing to note is: the drone is enriched with artificial intelligence (AI) and if commanded about the kinds of pictures one requires, it can take those pictures on its own. Jui and Robin are very happy to get the gift. After opening the packet, when they asked their uncle how to use this, the uncle said out of fun, "I don't know in fact, search on the net, O my nephew!"



Figure 3.1: The use of a new technological product, the drone

After some time, he said after bringing out a machine from his bag, "This is a modern professional VR box; this is also known as Oculus or Quest Pro. VR box is a device like a spectacle by which one can feel the environment in the virtual reality and anyone can experience from home that he/she is positioned in another environment or world. A few minutes later, I will have a meeting with my foreign colleagues. Even if I am at your house, my colleagues will see that I am sitting at the office, I am talking to them like a true human and I am moving various things. Not only that, there are many more from different countries who will work by joining our office like this. This is a total virtual context. Here, a virtual character (Avatar) is created for all. Everyone can see their talk, facial expression and body language. This technology of a virtual world is known as the meta verse. Many things are connected in this meta verse including augmented reality, holograph technology, and 3-D technology and for this, our work environment and experience have mostly changed. Take an example of XR technology; this new XR or extended reality is formed through the integration of augmented reality and virtual reality. Consumers can set the sofa in their homes digitally before buying it to see how it looks. Similarly, we can do a trial for dress also. So, you can understand that in a few days, there will be a demand for quite several professions in the area of customer service as an impact of XR.



Figure 3.2: Use of modern technology at a professional meet

Jui was listening to her uncle with complete surprise. She said, "Uncle, it seems like science fiction after listening to your story. Do you use any kind of technology outside your office?" Uncle answered with a smile, 'Yes, that I do! At a restaurant beside my office there is a 'Robot waiter', it keeps serving us food! There is a smart monitor in the kitchen of my colleague's home which gives notification in case any products in the kitchen or refrigerator finish. All the electronic machines (such as TV, fridge, washing machine, oven etc.) and doors, and windows are connected to the internet in smart homes. One can control their usage from inside or outside the home. As a result, time and electricity costs are saved, along with ensuring safety. You will see that these technologies will also come to you very soon.'

Robin said with great concern, 'Uncle, then many will lose jobs!' Uncle said, 'That is true indeed! Many jobs or work will be done by robots in the future and many will lose jobs. But nothing to fear for that. Rather, remember, humans will run and create these. So, many new jobs and fields of work are created and there will be more in future which we cannot even think of!'

Jui said, 'You know uncle, one of my friends has said that he/she writes an essay with the help of Chat GPT. What is that, uncle?'

Bursting out laughter, the uncle said, 'Listen, Chat GPT is an Artificial Intelligence (AI) programme which can understand the language of a human and can respond. It helps to find answers to various questions through conversations with people. But, as a user, you have to provide questions or problems to it and give instructions to ask the right questions at the right time to let it work. You have to take the correct decision after analysing the information generated by it. You are the boss or owner. Without your intelligence, their information will not bring any results for you. Remember, mankind creates artificial intelligence by utilizing its intelligence. Therefore, mankind is managing AI. You must have to be more intelligent than it. You know the reason, AI runs by borrowing intelligence from mankind.'

Robin said, "Uncle, the other day, I read in the science journal that a renowned world technologist may have said, we are in the first era of artificial intelligence at the moment. In future, more AI programmes are coming such as AGI (Artificial General Intelligence) and ASI (Artificial Super Intelligence). AI is called the weak AI of the first generation and AGI is known as the strong AI of the second generation. On the other hand, ASI is the very strong AI of the third generation which is likely to be available to mankind by 2040."

Uncle said, 'You have read correctly. AI will soon be spread in different sectors and then more new job opportunities will be created in various areas including programming, development, testing, support and maintenance. Researchers assume that 9% of the new job market only in the USA will be created by 2025 as an impact of AI which may include data scientists, robot monitoring professionals, content curator, automation, specialist etc.'

The next day, Robin with others were planning to go to watch a '3-D show'. At that moment, Sabina's aunt from the neighbourhood said to Robin, 'Son, my pithapuli page has been hacked, please help!' On hearing this, Uncle wanted to know whether the page has a 'two-factor authentication' on. Sabina's aunt said with a questioning look, 'Two-factor authentication?' Uncle explained to her, 'two-factor authentications' is a two-layered security arrangement to keep our various accounts safe. Here, a code is sent to the user's mobile along with a password and logging in is only possible when this code is correctly entered. Aunt could not say anything about this. At last, her uncle took the initiative to restore this page with advice from one of his cyber security expert friends and he was able to resolve the problem after quite a few days.

Out of happiness, after restoring the page, one day, Sabina's aunt came to present Jui's aunt with a collection of various types of homemade pitha. While discussing, she wanted to know the meaning of Cyber Security as she had been frequently hearing these words for the last few days since her page had been hacked.

Uncle said Cyber Security is the training to get protection from devastating attacks on the computer, server, mobile device, electronic system, network and digital data which helps keep our digital life safe and secured. This is also known as information technology security or electronic information security. That is why, we need to use stronger and unique passwords and avoid clicking suspicious links and downloading unknown files. It is also very important to upgrade our devices and software regularly to get protected from cyber threats. We can save ourselves and others from cyber-attack, we can protect our data and enjoy the benefits of the digital world with mental peace by practising positive cyber behaviour with full understanding.

Robin said, 'Then, job opportunities are also created here.' Uncle said, 'Indeed! Employment opportunities have already been created and in the coming days such scopes will continue to increase!'

Jui said, 'Well, uncle, what other new things are coming for us!'

Uncle said, 'You couldn't even imagine what more things were coming! Let us say about quantum computing. There is no alternative to quantum computing for finding out the solution to a complex problem. The more complex the problem, the more powerful quantum computer compared to anormal computer will be needed. Quantum computer can solve the problem in an unbelievable speed and it is called the king of speed. In future, complex work will come under the grip of mankind, and some of these complex works include solutions to complex data, machine learning, data protection, perfect surgery without humans in medical science etc. However, whatever comes, people like you will create those and these will work as per your instruction or command. People, using their intelligence, will make them slaves to make their work easy and powerful. Because Allah has given human being immense talent, creativity and intelligence.'

Jui said to their uncle with a curious look, ‘You know uncle, mother says that I have huge patience; I can look at any case very deeply; new and strange ideas always move around my head; I can concentrate on any work for a long time! So, I think I will not have any scarcity of jobs! I will keep focusing on the work and I will find something to do for sure!’

Excited on hearing his niece, uncle said, “O my future scientist! This is what we want!”



Group work

Exploring future technology

Find out what you know about the technologies which are already there in the story. In addition, make a list of the technologies about which you have to know more.

Table 3.1: Search of new technology

Serial no.	Name of the technology	
	Already know	To know
1		
2		
3		

Making dreams for the future generation

Mankind is an amazing creation of nature! They keep giving endless efforts to implement what they dream of. At some point in time, their dreams become reality after keeping in search of answers to thousands of questions and the solutions to thousands of problems. In this way, technologies are gradually moving towards excellence. Try to guess how new job opportunities have been created with the growth of technologies. Let us write a story on those new imaginary professions.

Name of the story:

Now let us analyse my story.

Table 3.2: Use of technology in imaginary profession

Name of the profession	Name of the technology which can be used in the imaginary profession	Necessary skills for imaginary profession	The type of role the said profession can play in human welfare

Related skills with future professions

The technological advancement that has occurred in the last decade is far higher than those that happened in the past few decades. It is very difficult to say what type of or how many changes are coming for such fast-technological growth. But it can be assumed that the great rule of Artificial Intelligence (AI) may begin. Besides this, machine learning, extended reality, digital trust, biomatrix, IOT etc. can change the nature of our livelihood and the need for profession. But we have to be very careful that technology should not turn us into machines by taking away our emotions, feelings, love and affection etc. During usage, we should take note that these should not hamper human welfare, which means, we must always ensure the positive use of technologies towards the good of society and the environment. Now we are going to learn about some professions, which many think, would become very important for the future.



Group work

Skills for future occupation

Get divided into 5/6 groups. For each group, find out the necessary skills for any three professions from the following. If needed, you can add on your own, the names of the professions. While doing this work, you can take help from the computer laboratory/library/various newspapers/anyone personal or family member of the group.

Name of the profession	
Data analyst	Wireless technology expert
Artificial Intelligence engineer	Autonomous transport technologist
Machine learning Engineer	Cyber security analyst
Biotech researcher	Augmented reality developer
Robot monitoring professional	Digital marketer
Renewable energy expert	3-D printing designer

In addition to search the skills related to these future professions, we are also going to find out risks involved in our selected professions. We will try to identify from our discussions about what positive or negative impacts may result towards other jobs because of these professions. We are going to record all the information in our Life and Livelihood note book after discussing with all in groups regarding how we can work in those professions by ensuring safety for our future world.

Realistic use of new technology

We can find out modern and smart solutions to many things around us by utilizing new technologies. Let us see how we can bring solutions to some real problems and develop the quality of services by applying modern technologies.

Example-1: Smart method of monitoring the attendance and the academic performance of school students.

Model project: IOT to track the attendance and proficiency of students.



Figure 3.3: Students are giving biometric attendance

We can install an attendance record device outside the classroom in place of class attendance or roll calling to ensure the students' attendance in school. Attendance records can be done by scanning the fingerprint or retina of eyes or machine-readable ID cards of students. Alongside these types of technologies, if needed, students' attendance can

be dispatched via message to the guardian's mobile phone. Students' average attendance in different seasons, the rate of the presence of boys and girls and the influence of total attendance on the overall result of the students can also be analysed. As a result, it will be easier to make plans for special remedial classes according to the need of absent students. Therefore, teachers' time will be saved and easier and safe communication with the guardians will be built.

The technology used: IOT device, big data, artificial intelligence. (AI)

Example 2: Timely irrigation in the agricultural farm:

Model project (smart irrigation system):

A farmer needs to irrigate regularly on the agricultural farm or in the field. If there is no proper irrigation plan, agricultural production is hampered and sometimes it needs to extract extra water. Due to unplanned irrigation, water is misused; and on the other side, irrigation cost increases for using electricity and diesel. There is no alternative/substitute of moderate irrigation for the production of newly innovated climate-tolerant hybrid types of crops.



Image 4.3: Model project of timely irrigation in an agriculture farm ("smart irrigation system")

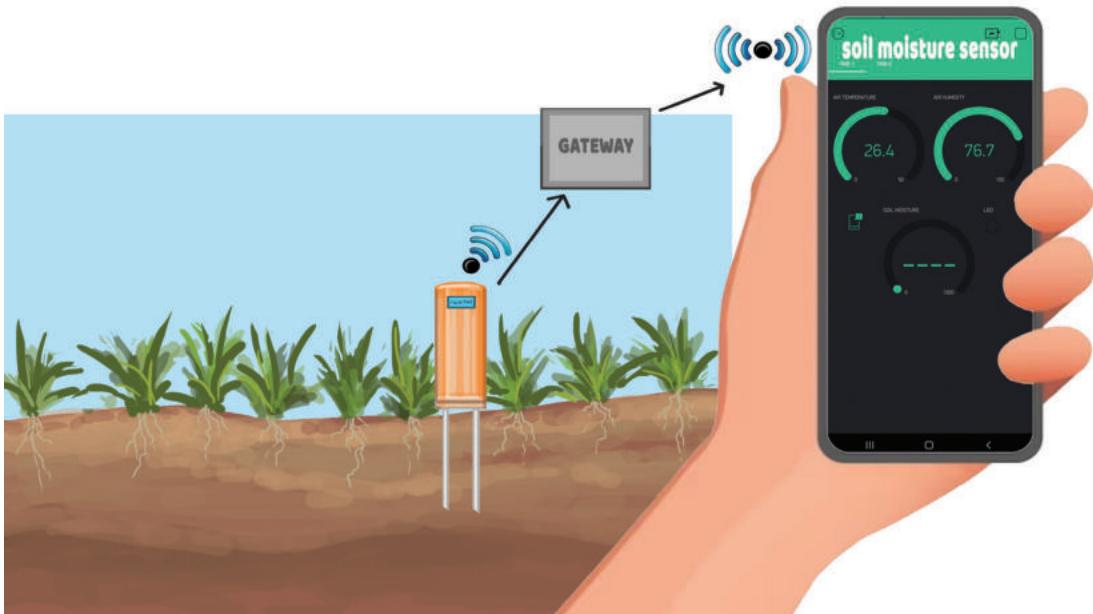


Figure 3.5: Information of Soil moisture measurement through mobile app

We can make the irrigation system of agricultural fields smarter by using soil moisture sensors. It saves time and cost and the expected amount of production can be possible. A farmer can install an IOT sensor in the field to determine the demand of required water for irrigation by knowing the moisture and water level in the mobile phone and can irrigate according to that requirement. Tools for measuring the moisture level of soil can be installed in the different places of the field. All tools are connected to the internet. These tools send signals to the server if the moisture level in the field is less or more than the required level. Detail information comes from the tools through the mobile app. Even different methods of irrigation can be possible by determining the required amount of water for various types and classes of crops.

Technology used: Internet of Things (IOT), Biotechnology

Building future project

Finding the different problems of our daily life, we tried to solve them in classes six and seven. This time also we will find a problem and make a special plan to solve it with the help of technology. If we find, we can see that there are so many problems around us which can be solved properly by using recent technology. We will try to find how a problem can be solved by using what kinds of advanced technology.



Figure 3.6: Presentation of students' project

If needed we will take the help of the internet, and use artificial intelligence platforms for teachers, guardians and any person skilled in this technology. The sectors from where we can find out the problems are given below:

Sectors of problem

1. School and surrounding environment
2. Related to the agriculture of own locality
3. Related to electricity/water/energy or fuel
4. Social/economic
5. Library/science laboratory/school canteen
6. Communication system



Group work

Making a project

Choose any one of the above-mentioned sectors. Select a problem that includes the above-mentioned section by discussing it with group members. Plan how to solve the problem with the help of advanced technology and make a model of the solution. In each group, present your model in the class. Submit the project group-wise to your teacher and complete the table given below:

Table 3.2: Project Idea

Group name	
Members of the group	
Selected problem	
Technology used	
Proposed solution	
benefits from the project	
impact of the project on the environment	

Role of the project on social welfare or welfare of human being	
Model (photo/presentation/sketch etc.)	(You may use separate paper)
estimated duration to implement the project	
estimated cost to implement the project	
recommended steps to actualize the project	
necessary advice to make the project sustainable	
opinions of other groups about the project	
The comprehension of my project	
Teacher's comment	

We can share this idea on any special platform with the help of digital technology to know how much realistic is our project which we have made using the ideas of advanced technology.

SI	description	Yes	No	Comment
1.	We have tried our best to collect relevant and detailed information about the project			
2.	We have effectively communicated to review different solutions			
3.	We have worked co-operatively to complete the project timely			
4.	We have divided the tasks of the project among ourselves			
5.	We have planned by well understanding the technology-related issues.			
6.	We have brought necessary changes to the plan based on the critical opinion of others about the project.			
7.	We have verified whether the solution has any adverse reaction on our society and environment or not.			
8.	We have conducted a dummy experiment/sample project for determining whether the project is working or not.			
9.	We have given a clear idea about the project on the day of the final presentation			
10.	We think that the project is easily usable and convenient.			

It is possible to overcome many limitations with technology. We can also actualize dreams with the help of technology. The tasks that seemed to be impossible once upon a time and the tasks that needed much effort and cost are now possible to do very easily with minimum time and labour with the help of advanced technology. Development of technology is accelerating because of excellent human imagination power and intelligence. So, we will dream of our future and implement that with talent, labour and creative idea.



Self-evaluation

'Myself in 2030'

- a) For which profession do you want to get yourself prepared for in 2030?

- b) Which technological skills do you think you will need for that profession?

- c) What is another competence/capacity you will need to think of to be successful in that profession besides developing technological skills?

- d) How will you work for the welfare of your country you think by your profession?

- e) What are the tasks you will start practising from now to get yourself prepared for that profession?

What we have done in this chapter [put tick mark (✓) in applicable space]

SI	tasks	not done (1)	partially done (3)	well done (5)
1.	Getting an idea about future technology by reading the story, "Living with Technology"			
2.	Fixing group work in search of future technology			
3.	Making a story on the imaginary profession			
4.	Analysing the story of an imaginary profession			
5.	Searching the skills of future projects in groups			
6.	Making future projects group wise			
7.	Evaluating the prepared future project			
8.	Completing "Myself in 2023"			
Total score: 60		My score:		
Guardian's opinion:				

Newly learned in this chapter**Teacher's comment**

Make Ideas in Business

‘কোন বাণিজ্য নিবাস তোমার, কহো আমায় ধনী
তাহা হলে সেই বাণিজ্যের করব মহাজনী’

A century ago, Rabindranath Tagore shared his desire or intention towards business like this. A planned contemporary business idea can make our dream of becoming an entrepreneur a reality. Dedication, passion towards work, and accountability to the nation can work as a key capital to develop any kind of business.



Have you ever thought about the goods and services that we use every day? Who produce these? Do you want to know why they produce, how they produce or where these are found? If you want to get the answers to these questions, you will see that whatever we need, somebody is supplying those. That means, there are needs for some products and services for you and your family; and you can meet those demands by buying them. People around you who are selling these goods or providing services must have noticed that there are shortages in the market of such products and services. They can fulfil the needs of the local population and also do business if they sell these products or provide such services. So, you can see that the idea of a business comes only when a solution to any problems can be achieved through production or creation or supply of goods or services or when the need of meeting the demands of the people is necessary.

Knowing our local Resources

How far do we know about the local resources of the place where we live?



Figure 4.1: Local resources of various places (Dry fish at Sonadia of Cox's Bazar, Khulna

Everything in the places where we live such as soil, water, sunlight, air, flower, crop, plants, ponds, rivers, seas, and forests-jungles; each one is a natural resource. As there are mineral resources among many natural resources like oil, gas, coal, stone, and sand, there are also local agricultural land, crop, reservoir, forest, wood and bamboo cane. These resources are not available in equal proportion everywhere. For example, stones are found naturally at Jafflong in Sylhet which are not available in other parts and salt is cultured by holding sea water from Teknaf, Cox's Bazar which is not possible in other areas of the country. Honey and wood are found in Sundarban, Hilsa fish is available in Padma and Meghna river, good quality mangoes are found in Rajshahi, and in Jessore region materials for Sheetal mat are available and flower culture takes place. So, likewise, there is at least something in each region of the country which is known as local resources. By utilizing these resources, some do business, some produce and some supply. That means local people are involved in different professions by utilizing various local resources in their respective areas. These local resources can be used in many ways.

Utilization of local resources

Things might not be seen as resources from our perspective. But man can also make wonderful things from simple raw materials through their creativity and intelligence. For example, suppose a good quality clay soil is found in one area which is a local resource of that place. Some people in that area make pots and pans, dishes, toys, bricks, tiles etc. with the clay soil of that region and sell them, and these are useful in our daily life. Similarly, in the region where bamboo, cane or jute are produced, these are also seen as local resources of those locations because money is earned by selling these and again many necessary products are made from these which are needed in our daily lives. Some workers are very experts in knitting clothes; for example, they make a sari, lungi and gamcha; in this case, raw materials for clothes and the skills of the workers both are local resources. Various types of small and cottage industries are established in different locations based on the diversity of local resources. However, for medium and large industries, there may be a need for raw materials from home and abroad through local sources.

If you take a look at the business institutions which are situated at your local market, you will see that they fulfil the demands of daily necessary materials of the local people, for example, kitchen market, utensils, grocery and confectionary products, medicinal and hardware products and various services like a tailor for making clothes, salon for cutting hair, various transport services for communication. Again, many products and services are not available in the local market. These have to be collected from big markets or cities located at a long distance; such as dresses, ornaments, electric products for homes, construction materials for buildings etc. Other than products, we have to go a long way to take various services; for example, banks, hospitals, entertainment centres, educational institutes etc.

With the benefit of modern technology, many in recent times are doing business with new ideas through digital mediums or the internet, sending local goods and services to different locations both at home and abroad.

Let us now find out in what kind of businesses the people of our locality are involved.



Group work

Make a list of those businesses in your area from which you have ideas as gained from experience. What are some characteristics of such businesses? Do they produce something? Or do they sell products or provide any services? Is it a retail or wholesale business?

Table 4.1: Types of local business

Sl no.	Name of the business/institution	Type of business
...	Grocery shop	Daily essential products, such as rice, salt, oil, spices etc. are sold.
1		
2		
3		
4		
5		

Local Market Observation

Today, the youth of our country has been doing wonderful work locally by identifying new business ideas. One such group has started a new business by making bags out of unwanted cloth collected from the tailoring shop. These environment-friendly bags have made its position in today's export market through a huge promotion and expansion.

Let us listen to another similar story. The incident begins at some houses in Dhaka. In this home, a ball of Rui fish is made by taking its bones out and boiling it at a high temperature to serve as an evening meal. A certain guest of this house has got a new idea after eating this dish. He has established a certain type of fish processing factory by utilizing this idea. The processed fishes from his factory are sent to different parts of the world. That entrepreneur is a wealthy person now; along with this, he/she is widely known as a successful business personality.

In both cases, the beginning of a business happens locally. That is why, we can discuss with local entrepreneurs of our own area to gain real experience about various businesses. We can learn from them about how they begin their businesses and what

goods or services they produce or provide.

We need some preparation for any interviews. At first, we need an interview letter to observe local market which will be very helpful to collect necessary information. Secondly, an approval letter from the school to take the interview is also needed. We will do these two works in groups and if required, we will take help of our teachers.

Various areas of business must be included in the interview letter to monitor. Such as: list of goods or services, buyers or target customers, source of sold products, that means, from where they collect these goods; time for operating business, that is, when the business remains open is the business daily; does it run for whole year or is it seasonal, etc. Besides that, any questions during interviews, if seems relevant, can be added into the interview letter.

At first, we will prepare an interview letter. Then based on the time and scope, we will personally monitor market of our own area in order to conduct the interview of the business persons of the local market (in groups and with the help of a family before the next class).

(If needed, school committee can be formed led by teachers to manage the local market monitoring activities, and approval letter with a signature from the Head of the institution can be given so that learners will not face any unwanted situations).

Sample of an Interview letter:

Interview letter for observing the local market	
Subject: Life and livelihood, Class: VIII	School.....
Information about respondents	
Name of the businessman	
Type of business	
Address	

Information about business

		Question	Answer
1			
2			
3			
4			
5			
6			

Own observation about the market/business

Which products, necessary for the family, are not available in the local market:

-
-
-

Your feelings

(After the interview, discuss with your family members/ relatives/ friends and write down your feelings on how to apply this experience in your life)

Sample of Approval letter:

Approval letter for the interview

Programme name	Local market observation
Name of the interviewer/name of the group member	
Name of the school	

The students of 'Life and Livelihood' subject of class VIII need to discuss with the local businessman to gain experience in observing local resources, business and market. Approval from the appropriate authority is there for the students to carry out the market review programme. You are requested cordially to help our students in this programme.

Signature of Subject teacher/Head teacher/Principal

Name of the institution:

Phone number:

Let's review the local market

We have collected some information from the local market by taking interviews on our own or in groups. We are going to draw a market map by making a collective list of products or services which are found in the market. By keeping the school in the middle, we will include in the map: what and around which area, products are available, are there any local products, how many markets are there and what goods are available in those markets etc. At first, we will draw on the classroom board a primary map by taking information from all, then we, from each group will draw this map again in our copy or poster.



Figure 4.2: Local Map

In our prepared map, we will get answers to many questions. We can easily review the things like what are the local resources available in our area; if there is a market or not for all the products as per the needs, whether the housing or distance of the market is under the control of local people or not, whether or not, the market and supply of the goods are in line with the rate of population, if there is any shortage of any specific products or not based on the demands. Through group discussion, we will try to find out the above areas and write the information in our copy.

Let's explore business ideas

সাহস নিয়ে উদ্যোগ্তা হবো, থাকবো সবাই সুখে
কর্মহীনে কর্ম দেবো, বেকারত্ব দেবো রুখে।

We need various goods and services for our livelihood. And businessmen work with new business ideas to fulfil those needs. In a family, people of different ages have different requirements. For example, baby food, dress and toys for children; sports items, study materials for teenagers; rice, lintel and flour etc. for our household; various kinds of medicines for the aged people may be required. Again, we need, besides our requirements, various products for domestic or pet animals and we may require other things for gardening or sports. We may also need various products and services to produce different goods and services, such as fertilizer, pesticide, seeds, agricultural labour etc. are required to produce agricultural products; brick, cement, stones, sand, and construction labour are required for a construction business. In this way, we can see around us many initiatives to conduct different businesses for fulfilling various demands and for solving problems.

The idea for every business is created with a central focus on meeting each demand. Businesses cannot be permanent or durable when there are no beneficiaries or buyers. Many start businesses with products which are their local products or which are available very close at hand. It can be seen that the business gradually spreads into the international world by crossing the local boundary when the demand for products increases. Let us now learn about some successful businesses:

Case -1: Badal Mandi is a student at a school in Panchagarh and he likes taking pictures. He went to scout Jamburi from his school, last year. He met many friends. He has got attached to an online-based group to communicate with them. He likes very much the tea garden on the plain land of Panchagarh. He takes pictures of the tea garden, and he also takes a photo of how tea is produced from the tea leaves; he posts on her social platforms many pictures with information about where good quality tea is available in the local market. He also shares these posts with the scout group, and many of his friends from all over Bangladesh like these photos and they have shown interest to get the tea from Panchagarh. At first, Badal could not understand how to fulfil the demand of his friends! So, he discusses this with his father and sends the separately packaged tea after buying a few KGs from the local tea market to some of his friends through a courier service.

His friends like her supplied tea. They pay the price through mobile apps. At the same time, they praise a lot about his tea in their online posts. In connection with this, many start ordering for tea to Badal. He has turned his hobby into a small business alongside his studying. He has opened on his social platform a separate page called 'The Great Tea Flavour from Panchagarh.' He uploads various types of images of tea, price and his mobile number for communication. After that, he does not have to look back! After taking an order from the page, he collects the best quality tea from Panchagarh and delivers these to the places as per the address.



Figure 4.3: Garden from where tea is collected

He is always very careful in ensuring the highest quality tea and guarantees legally realistic prices. As a result, customers continuously knock his page out of satisfaction. Honesty transforms his small business into quite a big one in a few days. All the family members help him in his business. They even have recruited a skilled worker for supplying the products and sending the courier.

The speciality of Badal Mandi's business

Case-2: Taherpur of Sunammonj is a haor-enriched area. In the dry season, paddy is cultivated in the haor; and during the rainy season, all the habitable lands are submerged in water. Many do not have any scope to work. Some go to the city in search of work. Saju and Sojib are two school friends in Panchagarh. They have noticed for a few years that people from different parts of the country come to haor to visit. Tanguar haor of Sunamgonj is gradually becoming a tourist centre. Then, the two friends start working as a tour guide for visitors. They help the tourists at haor by telling them how to hire the boat, which spots they should go to visit, where they can take exciting pictures, what food is famous here, especially which restaurant is selling the renowned 'duck meat with rice made roti.' In a few days by utilizing the scope of tourism



Figure 4.4: Tanguar haor

they made a group along with some friends named 'Tangua Tour Expert' and started to serve in a broad spectrum. Now they explore with the tourists in weekly holidays in the rainy season. They are known as a popular tour guide in the locality. Shaju has already noticed that coming here many of the tourists search for local products. So, besides tour guide service they started to collect red rice produced in haor, local eggs of ducks and sell those for a fair price to the tourists. Within a few years, their business achieves great success. The tourists who come once here, keep records of communication information with them. It's found that many of them order these products in the dry season. As a result, their business is running all through the year

The reason for expanding Shaju's business

Cause 3: The financial condition of Asma's village people was deplorable. There were no mills and factories, no agricultural fields or local big businesses. Many of the villages were going to the city or other areas in search of jobs/work. Her father runs a grocery shop in the village. Asma wanted to work for the development of the village



Figure 4.5: Farm of kochur loti (taro-stolon)

after completing education and thinking about various innovative ideas. Once she visited a city, and while passing through a market of raw materials she noticed that some were selling taro and taro stolon besides other vegetables and people gathered to buy them. Asma read in her book that there were nutritive values in taro. Then she thought that she could start the business of taro after returning to the village. Asma collected the leaves of taro from their fallow land with her brothers and sisters and requested her father to take those to the nearby vegetable market. Going to the market her father sold all the greens to one buyer. They became surprised to see the market demand and price of the product on which they did not give importance ever. Because of Asma's interest, her father made more gardens of taro around the house. Gradually they started to produce Taro leaves, taro stolon, taro root and became successful in the business. Many of the villagers made more gardens of taro finding it very easy and cost-effective. Now taro farming is one of the many businesses in the village. Taros of Asma's village had a great demand in the local wholesale market. The wholesalers supplied their taros to the big super shops of the capital city.

More ways to expand Asma's business

Case 4: Sister Rikta lives in the next house of Jhumu. She owns a biscuit factory. On Jhumu's birthday, she came with her daughter. Jhumu heard about her factory while gossiping. After passing the S.S.C examination Rikta got admitted to a bakery course with her brother's wife out of a hobby. While learning bakery items both the Rikta and her law bought an electric oven with their savings. Rikta's business idea started from there! In the beginning, they started to make biscuits of various flavours, colours and shapes on a trial basis. Out of fun, one day they took them to the neighbourhood shop for selling. On the very first day, they drew the attention of the school children for their attractive colours and shapes. The start was very interesting. After that the biscuits went to the super shop from the neighbourhood shop; and then to the expensive restaurants. After that, Rikta's brother and her wife joined the business. They opened a bakery and started packaging. Rikta's biscuits reached snack tables all over the country in packages. Finally, they made their way to overseas markets. From a bakery to a huge factory! Biscuits from Rikta's factory were exported to 5 countries in the Middle East.



Figure 4.6: Biscuits are produced in the factory

Rikta's reality was not as favourable as the story. She had to put much effort to find a place in the super shop from the neighbourhood shop. She had to accept so many refusals. She became successful by presenting them in innovative ways along with patience after a certain time. She had to face many adverse situations while processing exports. She had to submit the samples again and again by maintaining due standards and the given price range. Exporting was possible owing to the creative mould, variety of tastes, designs, standard quality and attractiveness of Rikta's biscuits.

More necessary steps to increase the export of Rikta

We have learnt from the stories that they implemented their business idea by using their intelligence, local properties and opportunities. We may have a business idea using any of the local properties that are available in our locality. Again, in the case of a city, there may not be local property equally available but if we can find the demand of a product or service of the local dwellers, we can still supply the products by collecting them from other areas or sources. But it is very important to keep in our mind that in implementing any idea it is very important to have honesty, interest, proper direction, passion, and patience to survive. It is not possible to expand business by cheating the consumers, giving poor quality products or charging excessive prices. We have to keep in mind that to be able to deliver standard quality products promptly to the consumers is the key to the success of a business.

But it is not like that everybody will be able to implement their business idea from the very first attempt and become successful. There are profit and loss in the business as well as success and failure. We have to find out the reasons for failure and design our plans new. We have to have the courage and patience to face any risk. We have to develop the mentality to materialize our potential through our self-confidence and prudence.

But before implementing anything we need an excellent plan. So, we will make some business ideas considering our local property, analysing the market and the demand of family and society. In groups, we will discuss different ideas on local properties and demand in the classroom. To realize how realistic an idea is, we need to consider certain issues.

Table 4.2: Questions to consider while selecting a business

SI	Questions to consider	Answer
1.	What type of business? Product or service?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
2.	Is there any potential buyer? Who are they (if any)?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
3.	Sources of product and service?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
4.	Has anyone done this already in the local market?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
5.	Will the business be profitable?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
6.	Will the business be harmful to society and the country?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
7.	Will the business be harmful to the environment?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer
8.	Is there any innovativeness to survive in the competition?	<input type="checkbox"/> got the answer <input type="checkbox"/> did not get an answer



Group work

Confirming business idea

To justify the rationality of the idea, fill up the space given below by discussing in groups. If you do not know any answer, find an innovative one. After group discussions, each group makes at least four business ideas. Present the ideas group-wise and finalize one by discussing them with the teacher.

Table 4.3: Business Selection (or, Selection of Business)

Name of the group:			Final Idea
SI	Name of Business	Type of business	Put tick
1			<input type="checkbox"/>
2			<input type="checkbox"/>
3			<input type="checkbox"/>
4			<input type="checkbox"/>

Presenting business idea

All the members of the group will start working on our business idea. If necessary, we will design our idea by discussing it with family, friends, teachers or anyone. We will fill up the following information table with the information that is essential for the business idea. We will present the complete design of our business idea in the next class. But we all in the class may arrange a seminar on 'sharing ideas' for the final presentation.

Seminar on sharing ideas

Seminars are often conducted on 'Sharing business ideas' in modern corporate organisations. Different classes of entrepreneurs present their ideas nicely there. The guests and audience who attend the seminar can know the details about the idea by asking questions. In that seminar, the organiser institution may select an idea or buy an idea for themselves. We also can present our ideas in a mock seminar. In that case, each group of us will try to present our business ideas on separate posters using the necessary pictures and colours. If possible we can arrange an organisation. All of our group will attentively listen to the presentation of another group and after the presentation, we will ask questions if there is a problem in understanding anything during the question-and-answer session. In this way, each group will participate in the seminar. After the seminar, we will try to display all the final posters on the wall of our classroom with the permission of the teacher.

Indicators for a business idea

Name of business:				
type of business: <input type="checkbox"/> production <input type="checkbox"/> wholesale <input type="checkbox"/> retail <input type="checkbox"/> service				
What demand will you meet or which problem will you solve?				
Probable products/services:				
Probable buyer:				
Way of selling:				
(How will the buyer receive the product: direct/online)				
method of exchange: <input type="checkbox"/> cash payment <input type="checkbox"/> online payment <input type="checkbox"/> mobile payment <input type="checkbox"/> both				
the speciality of the business:				
source of service or product and supply of necessary new materials:				
The reasons for which this business is selected:				
The benefits that society will get from the business:				
Introduction to the group and information about the members:				
1.	2.	3.		
4.	5.	6.		

Market demand must change with time. Then we have to add something new to the business idea or we have to bring some interesting and innovative changes, coming out of the old method or system according to the demand of time. This is a very difficult task. Expansion of business is almost confirmed if one can be successful in this task. Some of the present trend in business ideas are fashion house delivery companies, freelancing, affiliate marketing, making YouTube channels, event management, photography, homemade food, "phuchka-chotpoti", child care, homemade provider, gift-shop, product for mothers and babies, makeup or beautification, coffee-shop, tourist support, mobile food truck, pat service, home cleaning service, optical shop, poultry farming, organic vegetable farming, ornamental fish, wedding support, education counsellor, physical therapy, mental peace management, making ornaments, web design, handicraft, interior designing, making artificial flower, buying and selling old stuff, etc. We have to open our eyes and ears; we have to observe what is happening around us. Then we may find a business idea without capital, we also may find a business idea which we can do besides study or jobs. We will develop business ideas by combining honesty, labour, talent and creativity because we want the proverb " Banijye bosote Laxmi" to come true to us. Let's be inspired in business and trade by the verses of Rabindranath Tagore-

যদি কোথাও কুল নাহি পাই তল পাব তো তবু।
 ভিটার কোগে হতাশমনে রইব না আর কভু
 যাবই আমি যাবই, ওগো, বাণিজ্যেতে যাবই।





Self-evaluation

a) What qualities do you have as a successful entrepreneur you think?

.....
.....
.....

b) What skills do you think you need to practice for nursing the mentioned qualities?

.....
.....
.....

c) How do you think the implementation of your business idea works for the welfare of our country?

.....
.....
.....

d) What will you do if your fail to implement successfully after taking the initiative to start a suitable business?

.....
.....
.....
.....
.....

What we have done in this chapter [put tick mark (✓) in applicable space]

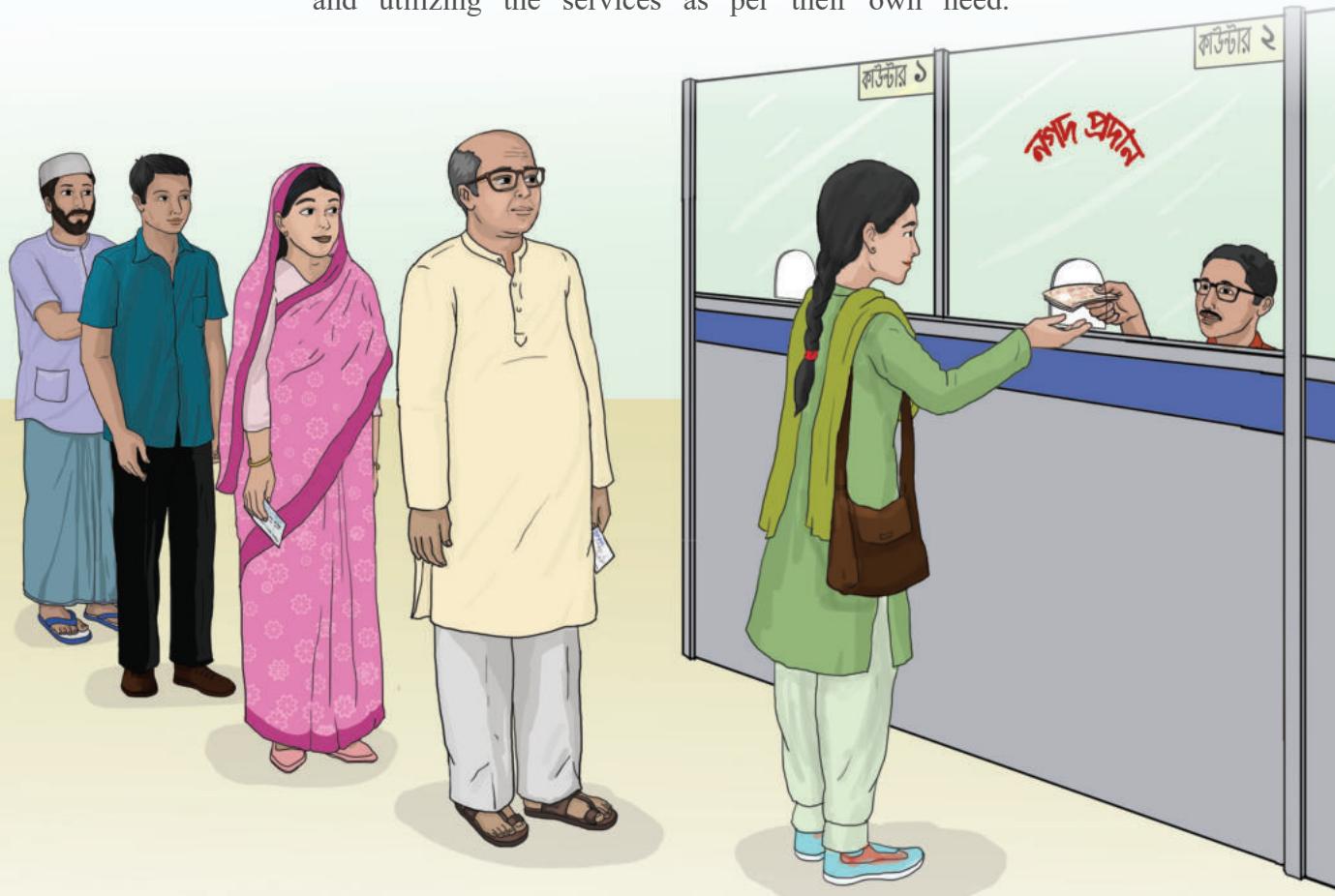
SI	tasks	not done (1)	Partly done (3)	well done (5)
1.	getting an idea of local resources			
2.	Predicting the local market			
3.	observing local market			
4.	analysing local market			
5.	getting ideas about the business from case study			
6.	finding business ideas in a group			
7.	making business ideas in groups			
8.	presenting the business idea in a seminar in a group			
Total score: 40		My score:		
Guardian's comment:				

What we have learnt from this chapter.....**Teacher's comment**

Introduction to Financial Services

হাত বাড়ালেই পেতে পারো আর্থিক সুবিধা
লাগাও যদি কাজে তবে, অভাব থাকবে না।
দশটি টাকার হিসাব খুলেও পেতে পারো খণ্ড
সেই খণ্ডেতে বদলে যাবে তোমার খরাপ দিন।
ধৰী, গৱীব, প্রাণ্তিকজন সবাইকে জানাও ভাই
'আর্থিক অন্তর্ভুক্তি' ছাড়া মোদের অন্য গতি নাই।

Bank's door is always open for all the rich and the poor in our country. Anybody can take various types of financial benefits if they need hands of cooperation. So, it is important to have a clear understanding about the benefits and services which different organisations provide. If we are well introduced with these things, then it will be easier to develop a capacity in taking and utilizing the services as per their own need.



We often hear the word ‘Financial Inclusion’. The word is also new to many of us. From the conversation and discussion in a classroom among teachers and learners, we will know this word.

Let's know about financial inclusion

Teacher: We use to do many kinds of financial activities for our needs in our daily lives. Do you know about these activities?

Aman: Yes Sir! We have learned about these in class seven.

Teacher: Can you please give an example?

Aman: Such as buying and selling of various items, producing something to sell and giving different services etc.

Teacher: Well said, what are other financial activities besides these? Who can tell?

Indrani: Sir! Buying goods from the market, saving money from school tiffin is also a financial work.

Teacher: Well said! The task of generating income from selling goods and services is the financial work related to earnings. On the other hand, meeting the needs of his/her own through buying of good or services is known as financial work related to expenses. Besides that, are there any other financial work?

Aman: Sir, then, the savings we do is not a financial activity?

Teacher: The financial activities that we do primarily consist of four parts. Various kinds of financial work are there in each part. For example, income related work is the work that initiates earning of money through selling of goods and services. Again, meeting the needs of oneself by buying various kinds of products and services is known as expenditure related work. Similarly, the money that is saved from the income is our financial activities related to savings, when saved money or money kept with us is used to generate income, then this is called financial activities related to investment. Do you know that there are few financial institutions who provide various kinds of services to help us do our financial work?

Indrani: Yes sir. Income related financial activities, expense related financial activities, savings related financial work and investment related financial work.

Teacher: Many thanks, Indrani. Our association with them or getting involved with the process or taking benefits from the organizations which work in connection with income, costs, savings and investment is actually known as financial inclusion. Do you know, which organizations provide us the services for conducting these financial activities?

Monir: Yes Sir! These are known as bank.

Teacher: You are correct, but remember that Banks are not the only financial service providing institutions. Other than banks, there are more financial service providing institutions, such as, non-bank financial institutions, micro finance providing institutions (MFI), Insurance company, cooperative institutions etc. Now tell me, what kind of monetary support we get from these organisations?

Aman: We deposit money in the bank. We also get loan from the banks.

Teacher: That is right. The key services that these service providing intuitions provide are:

- Accepting savings as deposit, giving opportunity for investment and providing security to the deposited amount,
- Fulfilling the financial need by providing loan.
- Reducing financial risks through insurance policy
- Creating scope for safer and faster transfer of money from one place to another through mobile financial service

Therefore, financial inclusion means accessibility to necessary and economic financial goods and services by individuals or organisations, so that they can deal with their various needs such as, transaction, payment of bills, savings, loan and insurance, quite easily (source: World bank). Considering this, services into which such access is given to the people of all classes, can be termed as financial inclusion.



Individual task

In table 5.1 mention the different types of financial functions or activities that you know.

Table 5.1: Different types of financial activities

Financial activities	
Financial activities related to income	Financial activities related to expenditure
Financial activities related to saving	Financial activities related to investment

Knowing Financial Services

Deposit service

What we earn or get money at different time, we do not spend it all. In general, the money that are left after all kinds of expenses from our income is known as savings. Again, in many occasions we may also get money from various sources that we keep with us. The safest place of saving and depositing money is bank or financial institutions. Keeping money by opening current, saving and term account in the bank is usually safe and profitable.

Current Deposit: This account is opened against organisation name or for business transactions. In this type of account, we can deposit/draw (transaction) money daily more than once and very low profit is given on the deposit. Such account is not profitable for general people.

Savings Deposit: This account is opened against a person's name where one can deposit additional money daily without any charges / fees and can also draw money weekly for a specific number of times. Based on the duration of this deposit, bank provides 4% to 5% interest/profit at a certain time frame. However, interest / profit rate goes up and down as per the nature of the bank and country's financial policy. To conduct savings account, some banks also provide ATM / Debit card along with cheque book to its depositors through which depositors can easily withdraw money any time from ATM booth located at different corners of the country. This type of account is very useful for a daily need, such as depositing, drawing, sending money and for a direct saving of allowance benefits from the Government's social safety net programme.

Term Deposit: This account is generally opened to keep the money for a certain period of time. Since the money is kept for a specific time, we can get more interest/ profit from this account compare to savings account. Although, we cannot use this account like that of current or saving account, but we can draw money on urgent basis from this account even before expiry date, in this case interest/ profit is somewhat low. We can also take loan by mortgaging the term deposit. If deposited amount is not needed in near future, keeping this account is comparatively beneficial.

Specialised Deposit Scheme: This scheme is one type of future savings account. After depositing a fixed amount of money each month, one can, through this account, draw altogether a big amount of money after a certain period of time. If anyone deposits taka 1000 each month in this type of account, then he/she will get approximately Tk. 76,000 after five years (source: Sonali Bank, 2018). Again, if any student deposits Tk.500 each month under the education deposit scheme, then he / she will get approximate Tk. 92,000 after ten years. Under this scheme, there is also a scope for a specific amount of money to become double or triple after a certain period of time.

Investment service

It is called investment in general when we do not keep our saved or deposited money in the bank for profit but utilise/invest somewhere. Such as- investing in the business, buying land, investing in prize bond, buying gold, buying share etc. As these sectors of investment are separate, the level of income and risks for each sector is also separate. For example, both profit and risks are high in the business investment. On the other hand, in most cases after buying land or gold, we get better profit after a long wait. But in these two cases, we need to check a lot more because if we buy fake land or gold for any reasons, then there is a possibility of losing everything.



Figure 5.1: Land purchase and housing projects using investment services

Another sector of the investment is a share market or stock market. In this market, shares of various companies are bought and sold. Buying shares of any companies means to become a partner of that company, that is to become a part of the ownership of that company. If any company wants to increase its business or wants to invest in any new sectors, then it collects necessary fund by selling its share or stock to the people. By buying shares, investors hope that the value of these share will increase with the time so that they will be benefitted by selling those or they will get the part of the company's profit. The share value of a company may rise or fall for various reasons. This depends on how well the company is doing financially, what are the future prospects and what are the overall situations of the share market. As the positive information about the income or new product of the company may increase the share value, at the same time negative information about the company can reduce the share price. Although investing in the share market has risks, but at the same time, there is a possibility of getting a big profit if we buy share after selecting a company properly. The share price in the share market sometimes increases and decreases. So, one should invest in the share market with a long-term planning. Again, it reduces risks if, instead of investing in one

company or sector, investment is done in various companies or sectors.

One of the safest sectors for investment is to invest government prize bond. Many kinds of prize bonds are available in our country for investment. Such as –



Figure 5.2: Investment services for the stock market

5-year long Bangladesh prize bond: The profit rate in this type of bond is attractive but no money can be withdrawn from this bond before the expiry date and minimum of taka 10 lakh has to be invested.

5-year long family prize bond: A certain amount of profit is received each month against this prize bond. But, an adult female and a male above 65 years of age can only invest in this type of bond. The minimum investment amount in this bond is only Tk. 10,000. The families who are dependent on the income from their savings and do not want to waste in any circumstances, this bond is the best for them for their savings, the last resort.

Profit based bond every three months: This is another type of investable bond. One can draw profit from this bond every three months. If any person or family needs income from their savings at certain period of time, then for such group this type of bond is the best. Any adults can buy this bond.

There are more other types of saving certificates and bonds besides this saving certificate, such as, saving certificate for pension, prize bond, wage earner development, US dollar investment bond etc. Investing in these areas is beneficial and there is no such risks for putting money in these types of saving certificates and bonds.

Loan service

In most cases, we can't utilize financial scope and potential because of lack of necessary funds. Again, in many occasions, we need additional fund for a brief period to meet the various needs of our life, but cannot fulfil due to shortage of fund. To address these problems, various banks, financial organizations and micro credit institutions give us financial support through providing us loan services. We get business and consumer loans from these organizations. For example:

Current loan: This type of loan provision is for general business person. Under this, a borrower can draw and pay his loan any time of a year within his loan period. This loan is given for a year; it has to be renewed when one-year ends. Business person can meet their daily business needs by taking this loan.



Figure 5.3: Entrepreneurship using credit services (buying a van, opening a supershop)

Loan for export-import: Traders who are involved with export and import business, get a type of loan service for a brief period. This loan needs to be repaid within a certain period.

Term Loan: Term loan is a loan which are given for a prescribed time. Usually, this loan can be availed for setting agriculture farms, establishing new mills & factories, building houses, making business infra-structure etc. The loan fund is received as a whole, and it has to be paid back in monthly instalments. The biggest advantage of this loan is that the clients are able to do income generating activities by utilizing the loan funds in a planned way and can repay the instalments from the earned money.

Besides above loans, there are scope of receiving financial inclusive loan for farmers,

labour, women, distressed people, backward classes, unemployed people, labourers going abroad and poor community which are known as SME, and specialized loan, and various consumer loan.

There is also a CMSME loan provision for cottage, micro, small and medium sized entrepreneurs. CMSME is a given loan against initiatives taken at micro, small and medium sectors. Such type of loans are given as a term loan and loan instalments have to be paid at a regular interval.

Under the financial inclusion programme of Bangladesh Bank, there is a special arrangement for loan benefits for the account holders of taka 10 to recover or continue the economic activities of marginal or landless farmers, low income professionals and small traders. Only against personal guarantee, a loan amounting from taka 5 lakh up to taka 20 lakh can be received under this loan provision. By utilizing this loan option, any low-income individual can improve his / her financial condition.



Figure 5.4: Beneficiaries of Education Loans and Migration Loans

There is a provision of a specialized loans to make the unemployed people of the country functional. This loan is provided against the education certificate of the borrower. Besides this, there is an arrangement of immigration loan for the labourer who wants to go abroad but cannot due to lack of fund.

Other than the objectives of improving financial activities, banks or financial institutions also provide loan to an individual for fulfilling his/her personal needs which is known as consumer loan. Such as: loan and credit card for buying computer, car, TV, fridge, and education loan, house-building loan etc.



Group work

Review the financial position mentioned in the table through discussion and advise.

Table 5.2: Considerations financial situation and giving advice.

Serial no.	Financial condition	What type of loans are applicable for them?
1	The elder brother of Enam cannot complete his study due to lack of fund.	
2	Lucy Mankhin knows the nakshi kantha work and she is interested in setting a nakshi kantha factory	
3	It is very essential to buy a fridge for Moyna's mother, but she does not have required fund.	
4	Mr Karim wants to establish a juice factory but he needs financial help.	
5	Shrikanto Babu has a big grocery shop but he cannot bring necessary new goods for his shop due to lack of fund.	

Insurance Service

From birth to death, human life is filled with risks and uncertainty. Like human life, risk and uncertainty also exist in economic work. Risks remain from the production of goods until these reach the consumers. Insurance policy is initiated to reduce the risks and uncertainty at different levels of human life.

The way insurance policy works is – suppose there are 200 shops in a market. In each year, all goods of one or two shops are burned due to fire. The persons, whose shops are burnt, cannot survive in the business anymore, are fully destroyed. On average, each shop has goods worth about Tk. 100,000. Nobody can tell in advance when the fire will break out in the shop. So, all are in fear as to when and whose shop will have fire. All the shop owners are on risks or uncertainty each moment. Now, if all the shop owners divide their risks among themselves that means, if each deposits Tk. 100 per month for risks, then the total amount of deposited money of each in a year will be only Tk. 1200. And deposited money of all will be Tk. 2,40,000. With this amount, it is possible to compensate fully for one or two shops that are burnt. So, no shop owner has to live with fear and uncertainty.



Figure 5.5: Insurance provides benefits in case of any accident

People try to ensure financial security of the family members who are dependent on them through Life insurance. If a person, buying a life insurance policy of Tk. 300,000 with a ten years duration at monthly deposited amount of Tk. 1000, dies suddenly within the policy term time, then the insurance company will give his/her family the policy money in full, that is why, his/her family does not face financial problem for his/her death. Similarly, we can also do accident insurance against various types of accidents happening constantly around us, such as; fire, road accidents, theft, robbery etc. If this type of accident insurance is done, we can get compensation for the loss that has incurred due to accident from the insurance company.

Alongside the above-mentioned insurance policies, we have health insurance and education insurance for our various types of personal needs. If any person does the health policy, then insurance company will bear his/her treatment costs when he/she becomes ill. Again, if any guardian does the education policy for their child, then after

a certain period of time, the insurance company will provide educational expenses at a particular rate for different stages of their child's education, as a result, the study life of their child will not be ruined due to want of money. Outside of these insurances, the Government of Bangladesh has initiated various types of insurance policies for our poor population.

Bangabandhu Protection Insurance: By taking Bangabandhu Protection Insurance policy, we can get coverage benefit of two lakh taka by paying one time premium of Tk. 100. Citizen of 16 to 75 years of age can take this policy. However, for garments workers, the age limit is from 14 years to 75 years.

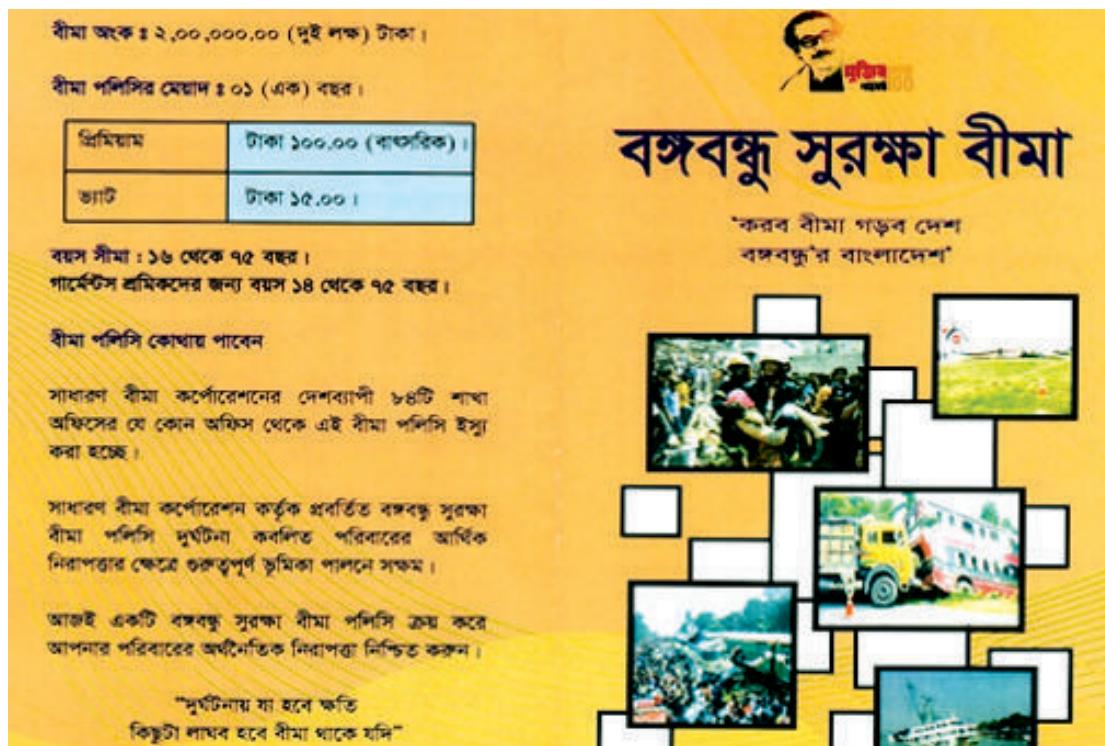


Figure 5.6: Poster of Bangabandhu Suraksha Bima

Bangabandhu Education Insurance: This policy can be taken for the students with an age from 3 years to 17 years by paying Tk. 85 annually. Father-mother or a legal guardian will be under policy cover. The age limit of the guardian will have to be from 25 years to 64 years. The duration of the policy is related with the age of the child. In this case, the duration of the policy will end on 18th birthday of the child. If insurance is done for a 3-year old child, the duration will be 15 years. In case of 17-year old child, it will be one year. During the policy term period, if guardian or father-mother becomes paralyzed due to accident, Tk. 500 will be given for the remaining period under this policy.

Mobile Financial service and online banking service

Mobile banking and online banking services are offered to simplify the financial transactions for all classes of people. The account that is opened against any registered phone number for financial transaction is called mobile financial service account: (MFS account). In this type of account client's money is deposited electronically. This service allows individuals to deposit and withdraw cash, transfer balances, pay utility bills, and settle product or service bills directly from their MFS account. One needs an active and registered SIM of any mobile operator of Bangladesh, photocopy of national ID card, and recent passport size photo to open MFS account. But one can open an account by using mobile application also. In that case, one can create an account by a mobile camera to take his/her photo along with photo of national ID card and instantly uploading them.

Now different types of banking procedure can be conducted staying home under online banking service. For example, drawing cash, transferring money from one account to another account, checking balance, paying bill, paying dues, receiving credited amount etc. The greatest benefit of online banking is that there is no limited banking hour. As a result, a person can easily conduct his/her banking activities.

We have learnt about different financial services and inclusive financial services. But from where can we get these services? Different types of organisation provide these types of services, among them the commercial banks receive deposit from people. Besides, they provide different types of banking services like sending money, receiving bill,

Inclusive Financial service provider organization				
Bank	Non banking	Micro Finance Institution (MFI)	Co-operation bank	Insurance company
Sonali Bank Ltd.	Financial organization Bangladesh House Building Finance Corporation	PKSF	Bangladesh Co-operative Bank	Sadharan Bima Corporation
Bank Ltd.	Finance Ltd	_____	_____	_____
Bank Ltd.	Finance Ltd	_____	_____	_____
Bank Ltd.	Finance Ltd	_____	_____	_____
etc.	etc.	etc.	etc.	etc.

Figure 5.7: Inclusive financial organization

collecting bill, foreign trade etc. and granting loans for various business purposes. Specialised Banks are those who provide necessary banking services besides granting loans and investment services to help a special sector or special population. Generally financial organisations meet up the demand of long-term loan. Co-operative institutions play a role in the economic development by disbursing loans among its own members.

Micro credit/Microfinance and Non-Govt. organizations (NGOs) try to make the life of individuals and the poor population financially self-sufficient by disbursing loan to them. Insurance companies take the risk against a fixed premium in order to minimize the risk. Once upon a time all people of our country could not get the service of the financial service provider organisations. That means there was no clear access to the financial services for the mass people. So, the Government of Bangladesh has made free and easy access to financial services of financial service provider organisation for all adult people (who are 18 years old or above). This access of mass people to the financial services is called financial inclusion. The door of financial service has been opened by opening the accounts by 10 taka or 'No Frill' account in each and every branch or sub-branch of our country for the mass people. 'No-frill' account holders get benefited by depositing their small savings in the bank by using their account as well as they get benefited by sending money, receiving different allowance and drawing cash.



Figure 5.8: Opening a bank account of 10 taka



Individual work

Make a list of what financial organizations are there in your locality in the table given below.

Table 5.3: Service provider institution for financial inclusion.

SI no.	Type of help provider institution for financial inclusion	Financial service institutions of my locality
1.	Bank	
2.	Non-bank financial institute	
3.	Micro credit institute (MFI)	
4.	Insurance company	
5.	Others	

Necessary qualifications and available benefits for the service of financial inclusive activities

Some special conditions are to fill up to get the services from financial service institutions. Financial service institutions provide demanded services to those who can fill up the conditions. This power of fulfilling the conditions of the financial service institutions is called eligibility of getting financial service. Now, we will know in detail about different financial inclusive services.

Table 5.4: financial inclusive service savings and investment

Type of financial service: savings or investment	
Question	Answer
What type of financial service provides this benefit?	All banks, non-bank financial institutions, microcredit providers, insurance companies and cooperative institutions.
To whom they provide this type of service?	<ul style="list-style-type: none"> • All adult (18 years old or above) citizens of Bangladesh. • All legal institutions (for example – business institutions, organizations, NGOs)
What are the preconditions for getting inclusive service?	<p>Documents/things needed to get the service -</p> <ul style="list-style-type: none"> • National ID, Photo and biodata • KOIC related information • Source of income • Information related to nominee • Income tax certificate (if applicable) • Institutional certificate (if applicable) • Minimum security money (the amount of this security money is limited to 10 Taka, 50 Taka, 100 Taka for the No-Frill account of poor people.)
What are the benefits of this type of inclusive financial service?	<ul style="list-style-type: none"> • Liquid assets can be deposited safely • Interest or profit is got against the savings or invested money which helps to increase asset. • Demand of liquid money can easily be meet up during emergency. • Bearing family expenses can be easier with increasing income. • Capital is built up which enriches the economy of the country.
Who needs these benefits?	<ul style="list-style-type: none"> • Who have deposited or saved money • Who can save a little amount of money regularly • The money which is the only support of a distressed person and which can bring a great loss if it is lost.

Table 5.5: inclusive financial service granting loan

Type of inclusive financial service: granting loan	
Question	Answer
What type of financial service institution provides these benefits?	All banks, non-bank financial institutions, microcredit providers.
Which type of loan is provided on what type of activities?	<ul style="list-style-type: none"> • Various types of loans are given against different activities. Some examples of inclusive financial loans are given below: • Poverty reduction loan: loan provided as No frill account or 10 Taka bank account for the development of landless farmer and poor population. • Agricultural loan: crop production, fish culture, livestock and poultry farming. • CMSME loan: Small and cottage industries, all other types of industrial factories, all types of legal business-like trade business, buying vehicles for business purpose, going abroad for business, education etc. • Women entrepreneur loan: This loan is provided on easy conditions for making the capable and deprived women self-sufficient. Any female owner of business can get the loan. • Bangabandhu youth loan: The aim of this loan is to connect the trained unemployed youth to the national development and to create employment for the unemployed youth. • There are so many other types of loans like term loan, demand loan, current loan etc. for financial needs besides the above-mentioned loans.
To whom this type of inclusive financial services are given?	<ul style="list-style-type: none"> • All adult (18 years old or above) Bangladeshi citizens. • People who are genuinely engaged in business or production like farmer, industrial entrepreneur, shop owner. • Service providers like hospital, educational institutions, transport service organizations etc. and • The person who wants to be capable of earning like new entrepreneur, educated/capable unemployed individuals.

<p>What are the pre-conditions of getting these types of inclusive financial services?</p>	<p>Requirements for accessing the services-</p> <ul style="list-style-type: none"> • National ID card, photo, and CV • Legal financial activities • Licence or certificate for business • To some extent security asset (immovable property) • Personal guarantee • Business information • Tax certificate (if applicable) • To some extent professional certificate etc.
<p>Cost of the services</p>	<ul style="list-style-type: none"> • A fixed rate of interest or profit is given against the loan under this inclusive service. Based on the nature of the loan the rate of interest/profit varies from 3% to 9%. But it is changeable depending on the situation. • Different types of service charge fixed by the banks (but for agriculture loan they charge a small amount of documentation fees. Apart from this no other service charge is applied.)
<p>What are the benefits of getting this type of inclusive financial service?</p>	<ul style="list-style-type: none"> • Increasing own financial activities by receiving financial assistance. • Launching new business • Increasing agricultural and industrial production • Gaining the ability to provide financial services • Increasing income by changing or improving one's livelihood etc.

Table 5.6: reduction of risk in inclusive financial service

Type of inclusive service: insurance	
Question	Answer
What type of financial service provides these benefits?	Generally, all general insurance companies and life insurance companies
To whom these types of benefits are given?	<ul style="list-style-type: none"> • All adult (18 years old and above) Bangladeshi citizens. • All legal institutions (for example – business institutions, organizations, NGOs etc.)
What are the requirements of the financial service institutions for providing inclusive financial service?	<ul style="list-style-type: none"> • NID, photo, and CV • KOIC related information • Information of nominee • Institutional and business certificates
What to pay in exchange of service? Or how much to pay for service?	<ul style="list-style-type: none"> • Fixed amount of premium for policy (for general insurance) • Fixed amount of instalment for policy (for life insurance)
What are the benefits of getting this type of inclusive financial service?	<ul style="list-style-type: none"> • General insurance companies compensate the loss (which is caused by accident) of the businessperson or the owner of the assets. • In case of sudden death, the family of the deceased get the financial support. • The deposited amount from the life insurance with profit/ interest are received after a certain time period. • Various forms of securities are available, such as: education, health etc.

Table 5.7: MFS account – financial inclusive service

Type of inclusive financial service: mobile financial services (MFS account)	
Question	Answer
What kind of financial service institution provides this benefit?	All bank and non-bank financial institutions.
To whom this kind of financial service is given?	<ul style="list-style-type: none"> • All Bangladeshi citizens who have a registered mobile SIM
What does the financial service institution demand to provide inclusive service?	<ul style="list-style-type: none"> • National ID card and photo • Any active and registered SIM of any mobile operator of Bangladesh
What is to pay for providing the service?	<ul style="list-style-type: none"> • Under this service fixed amount of charge must be paid for sending and receiving money.
What are benefits of getting these kinds of services?	<ul style="list-style-type: none"> • Financial transaction is easy, safe and quick. • No time bindings for service. Customer can have a transaction in suitable time whether day or night. • This service is available from anywhere in Bangladesh. • Transaction can be done from any place in Bangladesh. No need to go to financial service institution.



Group Work

We have learnt about various types of financial inclusion services. Now, we will read different scenarios and, working in groups, decide which types of services or opportunities apply to them.

Scenario 1

Abu Mia works as a guard in a private office. His small family consists of his wife and his daughter. His daughter is three years old. They live in a small rented room beside the office. The family somehow runs with his salary. They hardly can save 500 or 1000 taka monthly. After some days, they have to get admitted their daughter in a school. They have many dreams for their daughter.

- What types of financial inclusive services Abu Mia can get?

Scenario 2

Anup Chandra's father is a farmer. He cannot employ enough agricultural workers due to lack of sufficient money. He cannot cultivate his land using modern method. As a result, he cannot grow the amount of crops that could be possible to grow from four acres of land by which it could be possible to bring prosperity in his family.

- Write down what types of inclusive financial services will be proper for Anup Chandra's father?

Scenario 3

Belal's elder brother lives in Dhaka. He works in a factory there. Belal's family runs with his income. But often Belal's family does not timely get the money that he sends. So, they have to face various types of financial crisis. It has been quite long Belal has passed BA. After passing BA, he has taken training on fish culture also, but he cannot do anything else yet.

- Write down how can Belal be benefitted by using financial inclusiveness.
- How can the problem of getting money of Belal's family be solved by using the benefits of Financial inclusiveness?

Scenario 4

Prodip Gagori owns a clothing business. He has a wholesale shop in the clothing market at Islampur in Dhaka. He has observed that often some businesspersons like him becomes street beggar losing everything due to fire incident. He wants to remain safe from this problem. Now this issue is making him worried. But he cannot understand what are the things to do to get some kinds of benefits.

- Mention what type of financial benefits will be appropriate for Mr. Prodip Gagori.

Scenario 5

Rabeya Begum is a widow. She has a 8 years old son. Her husband left 5 crores of cash money and a house when he died. She lives in that house. She wants to invest her savings into such a scheme that she can get profit from there and her money will remain secured. Many asked her about different types of business but she does not dare to do that.

- Mention what type of financial benefits will be suitable for Rabeya Begum.



Individual task

Make a list of what financial benefits your family is taking now. And write a report using the table given below mentioning what benefits you are getting from there.

Table: what financial services my family is taking now.

S1	Name of the financial service	Description of the financial service	Benefits
Signature of guardian:		Teacher's comment:	

As time goes by, financial services and support are expanding to benefit all of us. With the blessings of technology, easier and innovative ways of financial operations are opening up. Nowadays, bank transactions are done on mobile phones. This saves both time and labour. Financial activities are gaining pace. However, during any financial inclusions, we must choose carefully the financial opportunities that are good for us. On receiving the chosen service, we will ensure its maximum use. We must remember while taking loans from the bank that the fund we are receiving as loan is not the property of the bank: it is deposited money of the people of the country. So, it is our moral duty to pay the benefits that we are taking from the savings of others to meet our needs on time. We will always remember that the real success lies in the timely repayment of loan through a proper utilisation of the received fund.



Self-evaluation

A) Identify through discussing with others the kinds of financial services your family can avail. Prepare a plan for taking such financial services.

Future plan for availing financial service.

Name of the financial service
Planning for taking financial service
Received benefit (possibility)

B) Do you need any sort of loan to provide financial support to your family? If yes, in such case, what suggestion would you give to your family regarding types of loan they should take?

.....

.....

.....

.....

.....

What we have done in this chapter [put tick mark (✓) in applicable space]

Sl no.	Activities	Could not (1)	Done partially (3)	Nicely done (5)
1.	Gather knowledge about financial inclusion.			
2.	Gather knowledge about deposit and investment services.			
3.	Getting to know about loan services and insurance services.			
4.	Gather knowledge on mobile financial service and online banking.			
5.	Searching for our own local financial inclusion service providers.			
6.	Gather knowledge about the necessary conditions and received benefits for availing Financial inclusion service.			
7.	Justifying for taking financial benefits			
8.	Making plans for the family to get financial support.			
Total score: 40		My score:		
Parent's comment:				

What we have learnt from this chapter.....

--

Teacher's comment

--

What Is in Me

আজ শুধু অঙ্গুরিত, জানি কাল ক্ষুদ্র ক্ষুদ্র পাতা
উদ্দাম হাওয়ার তালে তাল রেখে নেড়ে যাবে মাথা;
তারপর দীপ্তি শাখা মেলে দেব সবার সম্মুখে
ফোটাব বিস্মিত ফুল প্রতিবেশী গাছেদের মুখে।

Like the teenage poet Sukanto, we also know that we have huge potential in us. At one time, this potential will unfold and bring smiles to all. The Creator has sent us in this world endowing us with endless possibilities. All we need to do is identify those possibilities. Each one of us has certain skills for particular task. We can become one of the most memorable ones in the next decade by finding out what qualities are in us and by nurturing those qualities!



Can we do all kinds of work? Indeed not, among us some are very good at maths, some understand science well, and some love history very much. Again, among us, some speak very well, some write well, some draw well, some read poem with excellence, some recite well, some dance good or some sing well. Each one can do a particular work well. In this diverse world, people have different types of quality, capability and interest. Are five fingers of our hands all alike? We all are different from each other in terms of features. The world is beautiful because we are all different. That is why, the nature of liking, disliking and interest of each one of us is dissimilar. So, we need to organise our expectations based on our own choice, interest, quality and ability. Then self-confidence builds and the spirit of working with determination to fulfil expectations is generated. Now, we will try to discover ourselves, and find out what is there in me!

Table 6.1: What I like!

The work I like	The work I dislike
.....
.....
.....
.....
.....

My interest, ability and value

In different stories of classes VI and VII, we have seen that many seeds of possibilities are hidden among each person. With time and scope, these seeds grow into big trees by developing their branches. So, we have to discover the talents hidden in us. We need to find out which work we like and in which one, we have a huge interest. We have to understand that we have an interest in the work which attracts. So, the inspiration to work with interesting topics comes from inside a person, and as a result, commitment grows towards work. That is why, we must find out the areas of interest.

Similarly, we also have to find out about what abilities we have, to reach our goals. We have to develop our abilities through a regular practice, that means, we have to become more skilled. Ability is a kind of any specialty or quality in combination with knowledge, skills and experience etc. or it is the capacity to work.

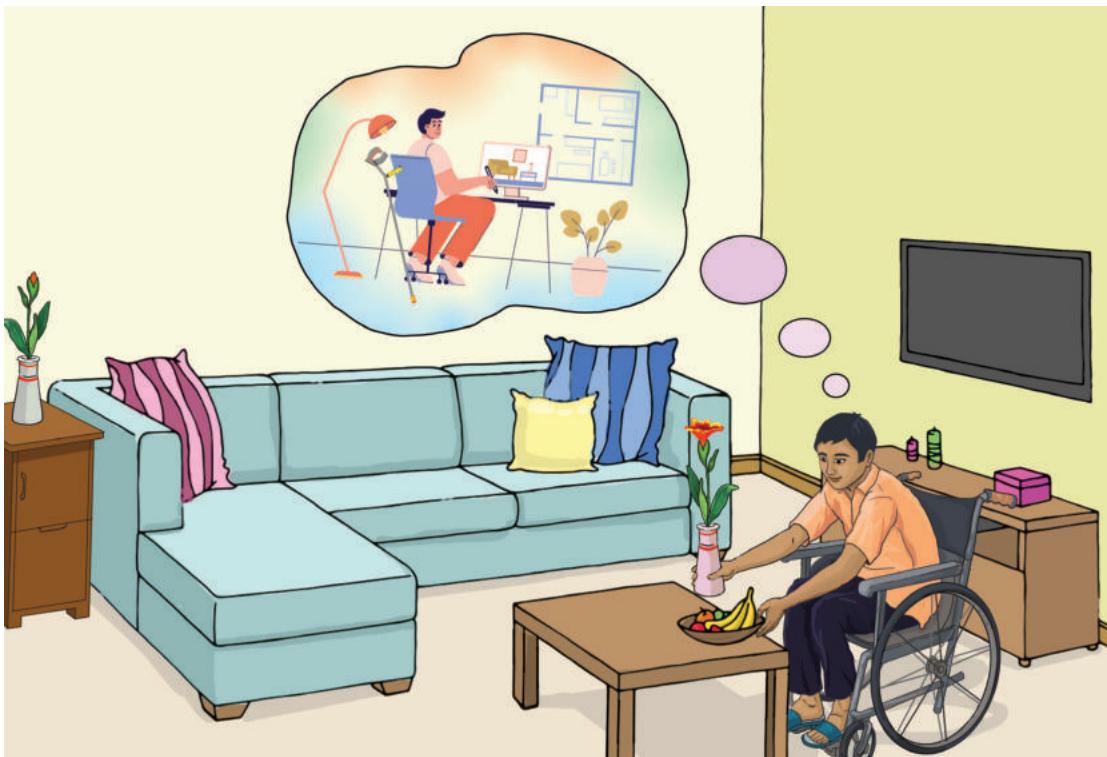


Figure: 6.1: My pleasure favorite work!

Besides interest and capacity, there is another thing which plays an important role to set our goal is values. Values are known as thoughts, goals, purpose and dedication which controls and manages the overall culture and activities of the people. A social scientist, F.E. Spencer has said, 'Values are the measuring sticks which are used to judge a good or a bad of our manners and to choose among different various possible aims.' The key point is, values also influence in our goal setting.

However, the expression of values in all societies might not be the same. Such as: let us think of exchanging greetings; in some countries, greetings are done through *salam*; again, in some countries this is done by saying good morning or good evening. Greetings need to be exchanged when we see somebody, and this is values, the expression of which differs in each country. Therefore, we can understand that there could be a change in expressing values with the change in locations. Again, with the change in time, there are changes in many social values. That is why, we have to consider values existed in local and international area at the time of decision making. We have to remember that values play an important role in reflecting our interest or desires.



Group Work

Preparing posters

Prepare a poster on what values need to be considered in setting professional goals.

Seeing myself through the eyes of others

We will fill in the columns of Table 6.2 by discussing with our two very close friends, two teachers and two parents (mother/father/brother/sister/relative/guardian). Write on your own while discussing with them, take signature after completion.

Table 6.2 Seeing myself through the eyes of others

Looking through the eye of others		My two qualities/skills/passion	My two weak points	How to see yourself in future	Signature
me in the eyes of my friends	Friend1				
me in the eyes of teachers	Teacher 1				
	Teacher 2				

	Parent 1			
me in the eyes of parents	Parent 2			

(We have to remember that we are searching these to reach our goal of life which will let us know our path for preparing us for the future. So, do not fill in this table casually. It won't work if filled by copying others. Because there will be a possibility to walk along the wrong path if we don't give the correct information).

We often dream about where we want to see ourselves in future. But we need to know both our interests and abilities to understand what type of work we will do or want to do in future. We are happy to work where there is an interest, we can also learn the work quickly; interest urges us to do the work. That means desire or urge is created automatically from inside to do the work. On many occasions, it is seen that success is not coming even if we have enough abilities; a kind of dissatisfaction or despair or boredom stays on. Such dissatisfaction then becomes a hurdle to enjoying life. That is why, interest towards work is also essential along with the abilities. You must have remembered that in class VII, we organized a debate on this. In this class, we will try to find out differently about where are our interests. But remember, this is an enjoyable test which we are going to do for fun.



Individual work

My introduction

First, write a self-introduction. Then read each comment in the table. Put a tick (✓) mark in any one of the boxes against each based on how true each comment is for you. Just think carefully before answering how much applicable each one is for you.

My assumed name:

My five favourite words:.....

My favourite colour:.....

My favourite symbol:.....

Table 6.3: About me

Sl no.	Comment on self	Fully disagree (0)	Disagree (1)	Neutral (2)	Agree (3)	Fully agree (4)
1.	I mostly spend my time at home					
2.	I solve problems based on logic					
3.	I love reading					
4.	People call me creative					
5.	I love working with my own hands					
6.	I like to work outside home					
7.	I enjoy analysis and problem-solving					
8.	I love word puzzles, word games and puzzles					
9.	Newer concepts come to my head					
10.	I feel very much attracted towards the new machine/gadget					
11.	I always love to collect various things					
12	I love to be with people					
13.	I help to explain my position on any subjects					
14.	I love information, data organizing and grouping					
15.	I love to advise others					
16.	I like to express my thoughts in writing					
17.	I love to make various designs					
18.	I like to solve the problems of others					
19.	I like to take initiative					

20.	I like to stay outside no matter how the weather is						
21.	I love to make and repair various things						
22.	I like to organize and use information						
23.	I love to use different types of tools						
24.	I love to know the reasons behind any incidents						
25.	I love to win with logic than competing						
26.	I love songs, arts and plays						
27.	I love to debate with others on any concepts						
28.	I like to find out trends/patterns/relations from the information and data						
29.	I pass my time more on sports						
30.	I love to take decisions and responsibilities						
31.	I enjoy helping others						
32.	I love to use tables and graphs to present my data						

Consider, for example, comments number 1, 6, 20 and 29 to know how outdoors-oriented you are. Suppose, you have ticked comment numbers 1, 6, 20 and 29, respectively, for agree, fully agree, fully agree and neutral. So, for the outdoor-oriented box, your score will be $3+4+4+2=13$. For this, if you complete numbering the box against eight types of personality in the following table, you have to see in which box you have got the highest score. We can assume that you have passion or interest towards that where your score is high.

Artful/ Artistic work		Enterprising/ Management		Literature lover/Writing		Player/ Outside oriented work		Technology- oriented/ practical work		Math oriented/ Mathematical		Realistic/ Scientific		Generous/ Social work		
Comnt. no.	Score	Comnt. no.	Score	Comnt. no.	Score	Comnt. no.	Score	Comnt. no.	Score	Comnt. no.	Score	Comnt. no.	Score	Comnt. no.	Score	
4	13			3		1		5		14		2		12		
11	15			8		6		10		22		7		18		
17	19			9		20		21		28		24		27		
26	30			16		29		23		32		25		31		
Total	Total			Total		Total		Total		Total		Total		Total		

Test result

the highest score =

Position of the score

my tendency

Determining professional goal

Now we will analyse the information from the tables that we have got from different jobs. We will find some qualities that many have already talked about. When we do any work, we try to understand our feelings. We have to think whether we are enjoying or not, whether we are feeling attracted towards the work from our heart or not, whether the work will be useful in my future life or not etc. After verifying we can say that we have found ourselves! We must have understood through different types of tasks, what are the potentials in myself.

I will make a list of what I have found - my interest, ability and values.

Table 6.4 myself

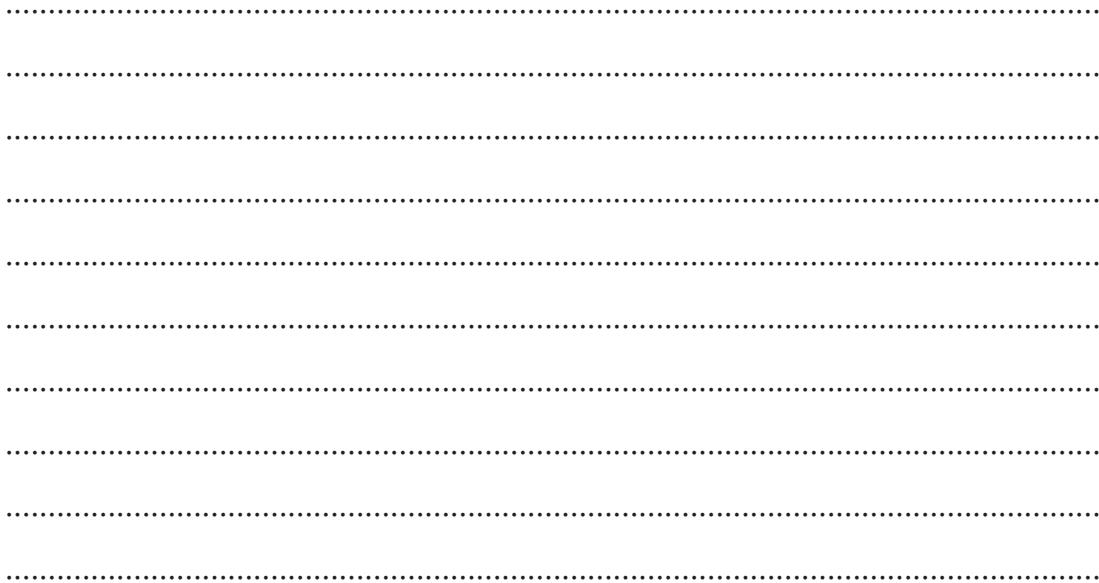
My interest:

My ability:

My values:

Revising the table above I will talk about myself (express yourself as “I am a potential one” considering the issues - for which profession you are thinking yourself eligible, why are you thinking so, how do you want to be successful)

‘I am a potential one’



Now share with your fellow students about the potentiality. Introduce yourself nicely in front of all in a new way. We all will see how nicely you can present yourself!

In class Seven, we practised analysing SWOT. We will do the same in this class. But this time we will analyse our personal SWOT to reach the target /goal by thinking of ourselves in that profession which we have thought ourselves eligible for.

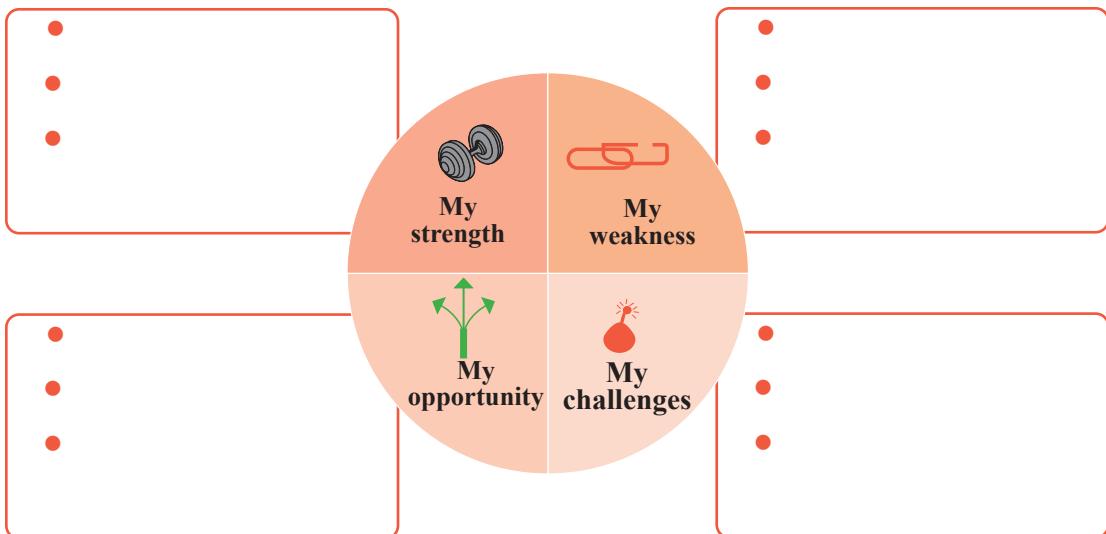


Figure 6.2: SWOT Analysis

Discovering myself in the mirror

Many of us feel shy to talk publicly. Even we don't want to talk in front of our relatives or parents. But it is very important to present excellently to prove yourself eligible. We can practise talking in front of the mirror to do it better. It becomes easier to find our faults; besides we can correct wrong pronunciations, gestures etc. As a result, self-confidence will increase.

It could be such that many mistakes result in the first day practice, but there is no need to feel sad at that. Notice the speech of those who are around you. Analyse carefully those who present in various media. Increase your confidence by observing them. You can do even better stand in front of the mirror with this belief. Keep practising like this. The weaker will slowly become stronger through such practice.



Figure: 6.3: I find myself in the reflection.

Table 6.5: The feeling of discovering oneself in the mirror

First time:
Second time:
Third time:

Making a short-term plan to reach the goal

Every person wants to reach his/her goal. It needs self-confidence and trust, devotion, concentration, labour, and proper planning. If there are dishonest means and purposes in the plan, then no one can be successful in our life. Now we will listen to the story of a person who has become successful in his/her desired profession utilising labour, devotion, and talent.

Story of touching the dream

Ayesha is exceptional since her childhood. She has less interest in running and jumping, sports like the other children of her age rather she likes to watch her elder sisters working on a computer. She watches attentively when her sister does different types of tasks on a computer. That is Ayesha's commencement in learning programming. She started different programming courses on the internet in her interest. One day, an issue suddenly raises a storm on the social media platform. Gunshots and setting fire in a locality in reaction to the viral news. Many men die in that fire setting. This issue makes Ayesha worried greatly. She starts thinking about its solution around the clock. She starts working on it targeting "Bad post-filtration". Within a few days, she starts getting success. She starts a trial in their server; and gets positive results. Then she starts connecting to other servers. She revises and brings some changes to become successful. Ayesha sends the program to international competition after completing

the trial. They reject it finding some errors in the trial. Ayesha is not a person to lose hope. She attentively tries to find the errors and works on strict cyber security. At a certain time, she becomes able to design it new and completes the trial successfully. After six months she again participates in the international online competition. This time she successfully overcomes the trial. An international cyber security agency buys her programme and invites her to work with them. Now Aesha works in that renowned agency. For her well-executed project, none can create chaos by any post which is harmful to the country or the state. As a result, many countries remain safe from turmoil and sinister disasters!



Figure 6.4: Ayesha working in a cyber security firm



Group work

Make a flowchart by arranging the plans sequentially that Ayesha made to reach her goal and present it in the class.

You must have seen in the story, how Ayesha designed her workways to reach her goal which helped her to fulfil her dream. Let's know how to make a plan for this type of work.

We have conducted some tasks to find our ability and tried to discover our potential. Now we will work on the process of using the hidden potential among us. From now on, we will start planning to prepare ourselves following our professional goals and according to the plan we will be active to develop our competence by correcting our mistakes.

If any goal is determined, then we need to create a layout of the way to accomplish the goal which is called a work plan to reach the goal or action plan. Through it we must outline the necessary steps gradually. Consequently, it becomes easier to track the action progress. It is an essential part of the technical process plan. An action plan plays a very important role as a technique for accomplishing personal goals as well as the target of an institution or group.

If we follow the steps of an action plan, our planning becomes flawless, and we can complete our tasks successfully. Besides it becomes easier to take preparation to face if there is any challenge. Here we will be introduced to some of the steps of an action plan.

Step 1: Set a specific goal: As we start from home by knowing well in which station we will get off from the train, the same thing applies to our profession. We have to determine the professional goal we want to reach or the professional destination. If we don't determine the goal, it will not be possible to include the elements of preparation to plan. Though we cannot talk about the destination certainly, we have to determine a destination station. If we fix the probable destination, it becomes easier to identify the other issues related to it.

Step 2: Create a list of actions: We have to make a probable list of the necessary steps to reach the destination. This list can include all types of work. For example: if one of us wants to be an interior designer then she/he must learn the geometric part of mathematics very well, practice drawing by hand, read books related to interior, search for different designs of the interior, communicate with the people of this sector, achieve a higher degree on it etc. In this step, we have to make a list of tasks to reach each destination.

Steps 3: prioritise tasks and set a timeline: This step maps out all probable tasks and makes a gradual timeline for all tasks. There may be a task for which we have to take preparation from today otherwise we may not reach the destination following the plan. In that case, we will map a timeline prioritising the tasks. In this way, we have to design the timeline considering importance, priority and continuity. That means when to finish

the task or to make a deadline.

Aim: Getting black belt in Karate									
Description and milestone	Timeframe								
	June 2024	September 2024	December 2024	March 2025	June 2025	September 2025	December 2025	March 2026	
Completion of course information and admission									
Regular practice and receiving yellow belt		Yellow							
Regular practice and receiving orange belt			Orange						
Appropriate practice and receiving red belt				Red					
Appropriate practice and receiving green belt					Green				
Lots of practices and receiving blue belt						Blue			
Lots of practices and receiving violet belt							Violet		
Lots of practices and receiving brown belt							Brown		
Lots of practice and receiving black belt								Black	

Figure: 6.5 metrics of an action plan indicating timeline and milestones

Step 4: Set a milestone: It is not possible to reach the destination directly. We have to reach step by step. For example, if someone wants to be a famous reciter of the country, then it is not possible to be instantly. Initially one has to practice regularly. He/ she has to participate in school-level competitions to justify how much competent he/she is. After that he/she has to participate upazila level, Zila level, divisional level and at last the national level to prove his talent. Here to become first at the school level is the first milestone for him/her; the second milestone is to become first in the upazila level; the zila level is the third milestone. Thus, ensuring many milestones one can be the best at the national level. Thus, the milestones are the little achievements like pillars on the way to reaching success.

Step 5: To identify the resources needed for the action plan: To accomplish the goal, we may need many types of resources like materials, books, property, money or talent etc. In this step, we can make a list of the demand for required resources for the

professional goal we have decided. Now if I want to be a nursery entrepreneur, then I need land, tubs, plastic pots or bags, saplings, seeds, fertilizer, a hoe for preparing the soil, a spade etc. We must identify all the equipment required like these to reach the goal in this step.

Step 6: Presenting an action plan matrix to see at a glance: To keep the whole action plan at the finger's end, and to observe its background, milestones, timeline and resources etc at a glance, many people keep a plan progress matrix. We have to present it in a way that we can easily visualize all the indicators during the implementation of an action plan. It may be a line chart, picture, graph or flow chart. Different organizations hang their annual action plan on a big board.

Step 7: Monitoring, evaluation and correction: It is not like that we must be successful if we make a plan after determining the professional goal. This step is designed to determine if we are regularly working to reach the goal as designed, if there is any hindrance /barrier for the work, if there is any default or lacking, if there is sufficient continuous effort or not, if we are determining the probable easier way for the correction by logical analysis, and move forward according to that.

An excellent action plan plays a great role in the success of a person or organisation. There are many benefits of the action plan-

- It plays a positive role in creating effective communication.
- It works as a guide to conduct the whole task or to accomplish the target.
- It becomes easier to select the priority task.
- Accountability increases during work progress
- It becomes easier to collect and distribute resources.
- Advanced knowledge of challenges
- Getting an idea about the deadline earlier.
- It's easier to know about work progress.



Individual work

Choose a profession for you. Make a short-term action plan following the 7 steps mentioned above to get yourself successful in that profession.

Making a short profile

You must have been introduced to the word "profile" while learning about digital technology. Profile means own identity. Generally, in a personal profile, one's qualities, skills, ability, liking- disliking, special competence etc, are presented attractively for any special goal or purpose.



Group work

Choose me

Find out the answers to the following questions by discussing with fellow students of your group and all of the group members present it by coming front.

- What is a profile?
- What are the things to notice while presenting professional information in a profile?
- Why does it need to make a profile?

(All of us will listen to them when a group is presenting, ask related questions, and give necessary advice/feedback for development)

Usually, we make biodata or CV (curriculum vitae) or profile for a job. Once upon a time, it was known as biodata. Nowadays, some organisations call it résumé and recently it is called self-profile or short profile.

Once upon a time, employer organizations demanded biodata or CV of a particular format with the job circular. Lately, biodata has brought innovation. Various organisations shorten the applicant's list by screening biodata. Again, some countries demand biography. So, there can be different types of profiles or introductions with different names. You can see different types of profiles if you search on the internet. It is a special quality to present own competence attractively to others.



Figure 6.6: sample of different profiles

We have completed different types of tasks to select our future profession. We have tried to find "what is in me". We will make a short profile by combining all we have found in ourselves. We will make our profile in such a way it becomes attractive and suitable for the selected profession and the recruitment board considers us competent for the post. Generally, name and address, parents' name, date of birth, nationality, religion, sex, educational qualifications, the field of interest, qualities, skills, job experience, special achievement (in school/home/locality/country/ abroad), favourite personality, special competencies/skills, values, references etc are mentioned in the profile. But according to the type and demand of the profession, these may vary.



Individual work

Face to face of a jury board

We will make a short profile suitable for the selected profession and face a jury board

All of you, make your profile which is suitable for your profession and write on an A4 size paper. With the help of a teacher divide your class into two groups- "jury group" and "candidates of job" by lottery. Form a jury board by taking 4/5 students from jury groups. Divide the candidates for a job into groups and select each for a jury board. Now go in front of a jury board. Then anyone from the selected board will take his/her interview seeing the profile. In this way, each jury board will take interview of a member of a group. After verifying the profile, the jury may ask some profession-related questions like why he is thinking he is competent for the profession/why the organisation will choose him for that profession.

‘প্রবল হওয়ার সাধ ও সাধনা যাহাদের প্রাণে আছে
 তাদেরই দুয়ারে হানা দেই আমি, আসি তাহাদেরি কাছে।’

The lines are from the poet of youth, Kazi Nazrul Islam. Success has a friendship with desire and perseverance. We have to keep constant faith and reliance on ourselves from the beginning to accomplish our goals. We have to consider ourselves as the best. I can do that. I must have to do it. We have to advance with such an attitude. While moving forward many obstacles and challenges may arrive. Failure may appear again and again initially. That means success can never be grabbed without perseverance and industry.

Reading the biography of various scientists like Thomas Alva Edeson, J K Rowling, Einstein, Abraham Lincoln and all religious advocates, we have known that all of them became successful only because they had been working devotedly being steady to their goals. They could change the history of the world. We also believe that we must be able to keep pace with any change in the future workplace. Using our potential, we will sharpen our competencies. We will overcome all obstacles! Our sky-high dreams will come true! So, attuning with Farah Grey we want to call all – “turn your dream into profession, otherwise another one will do it”.



Self-evaluation

- A) What are directions we can get if we make an action plan for work?

- B) Suppose, you want to be a pharmacist or medicine specialist. In that case, what will be your milestones?

- c) If you want to be a renewable energy specialist, make a priority list of your tasks and determine the deadline following the list.

- d) Show the action plan of how you can be a successful poultry farmer in a flow chart.

What we have done in this chapter [put tick mark (✓) in applicable space]

SL	tasks	Not done (1)	Partly done (3)	Well done (5)
1.	Identifying values to determine professional goals.			
2.	Getting an idea about my skill by "I see myself in others eyes"			
3.	Determining tendency by testing "my identity"			
4.	Practising storytelling about own potential			
5.	Analyzing myself by "discovering myself in the mirror"			
6.	Analysis of personal SWOT			
7.	Making a flow chart of a short-term plan from a case study			
8.	Getting ideas about action plan			
9.	Making a short-term plan for the selected profession for own			
10.	Creating personal profile			
11.	Presenting myself by "face to face of jury board"			
12.	Exercise for rational solution of self assessment questions			
Total score: 60		My score:		
Guardians comment:				

What we have learnt in this chapter.....**Teacher's comment**

Skills Course One

Eco-tour Guiding

At the end of this course,

ensuring due safety, we will become capable of leading eco-tours in our own locality and aspire to contribute commercially to the tourism industry in the future.



আবার আসিব ফিরে ধানসিড়িটির তীরে— এই বাংলায়
হয়তো মানুষ নয়— হয়তো বা শঙ্খচিল শালিকের বেশে;
হয়তো ভোরের কাক হয়ে এই কার্তিকের নবাম্বের দেশে
কুঝাশার বুকে ভেসে একদিন আসিব এ কঁঠাল-ছায়ায়;

Poet Jibanananda Das, having been fascinated with the natural beauty of this land, has expressed the urge to revisit this country even after his death. His appeal is to be able to make a comeback to this land even as elements of nature in case he cannot return to his human self. Indeed, this land of ours is a pleasure yard of unending beauty.

Thoughts on Eco-tourism

Raihana's native village is unusually beautiful. The little village appears to be heaven in the evening when the sun sets across the other bank of the Padma. Last year, during the harvesting season, one of his uncles came to visit the village. The very golden village that is lying along the bank of the Padma. Raihana accompanied her uncle all day long to help him take a tour around the village; nothing was left out starting from the floral beds made of red shapla on the green pond water, the crafty nest of the weaving birds hanging from the top of the palm trees, *pankauri* at the mid-swamp, the white stark resting on one foot in the filled with of paddy to reap or the centenary banyan tree at Dattapara. After passing such a blessed time with nature uncle became very glad and he said, "How long have I been out of sight of this beauty of my Bengal!" Raihana said, "Today is a market day, I will accompany you to the market in the afternoon. There, in the evening, a circus show is on. And there will be a fair under the banyan tree tomorrow. I will take you there." Uncle replied with a smile, "I can see that you are a skilled guide! Have you received any training?" She concealed her sneaky smile and said, Yes, uncle, I have a strong desire to be a tourist guide, that's why I am practising." Uncle said, "In that case be an eco-tour guide, you will do very well in this." The word is a little bit new to Raihana. So, she asked for clarification and said, "What does that mean, uncle?" Uncle started to tell Raihana about eco-tourism, eco-tour guide, as he sat on the bank of a pond looking at the aquatic funs made by the ducks.

Eco-tourism and Eco Tour

Eco-tourism is about enjoying the unparalleled beauty of nature as well as getting to know and feel nature from deep inside without causing any disruption to the systems of nature and the environment. This concept in tourism originates from the thought of due conservation of the environment. The understanding to look at tourism as a means to be sensible toward maintaining the balance of the environment taking it beyond the limitation of mere entertainment is also associated with the notion of eco-tourism. Its popularity is increasing day by day. The travel-addicted people nowadays, to shake off the weariness of the bored mechanical life, are eager to learn real-life lessons coming in close contact with nature. So, the main thought behind eco-tourism caters to elements like the lifestyle, art

culture, history and tradition, prevailing diverse environment, free movement of animals and birds etc. of the native population in a specific area. That's why eco-tourism has huge promises in the tourism sector. The tour that is undertaken considering the thought behind ecotourism is called eco-tour.

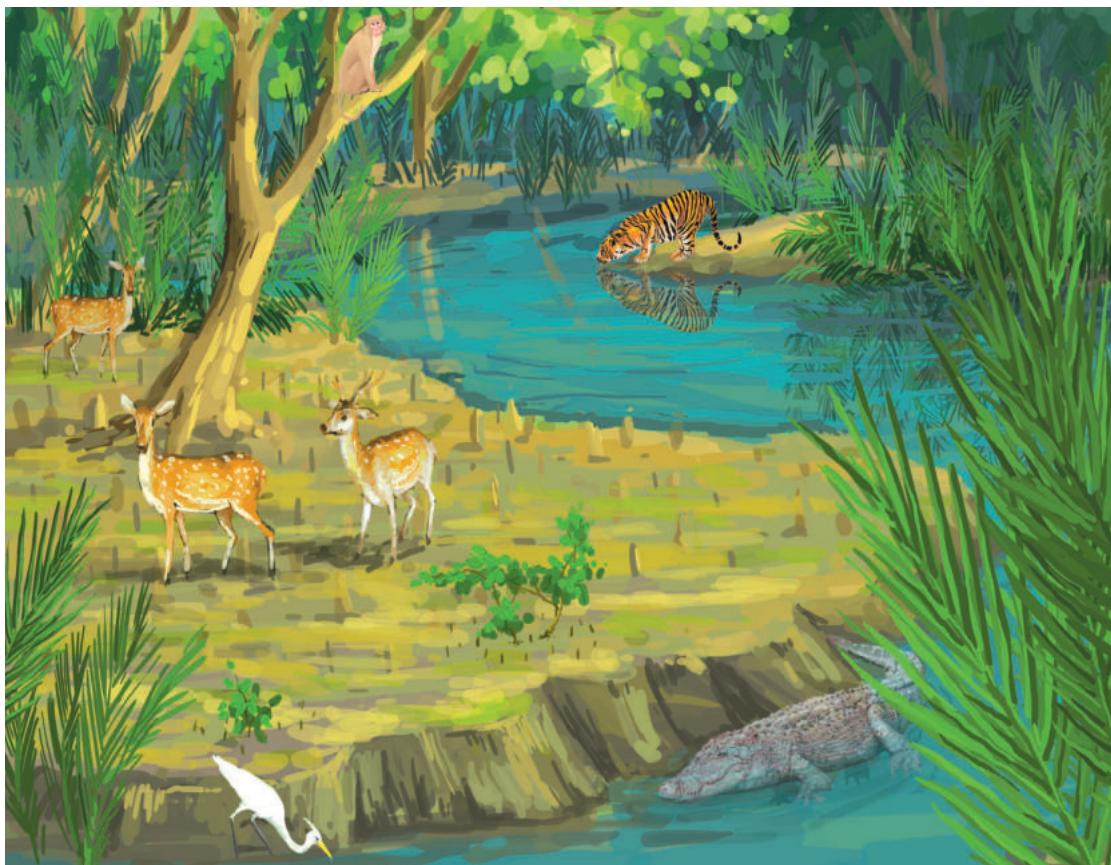


Figure 7.1: World's largest mangrove forest (Sundarbans)



Group work

Let's find the eco tour spots in my area

Get into several groups and through discussions, make a list of the potential spots or sites for eco-tours in your respective areas. Each group will display your list on the wall. Identify the common spots mentioned in the lists prepared by all the groups and write down the common spots on a poster. Then make a compiled list by listing the other spots mentioned in all the groups.

Why eco-tourism or Eco Tour?

There has been a wide acceptance of eco-tours globally owing to our sustainable needs to cope with climate change. The notion of eco-tourism originates with the view to enjoying the natural beauty, conservation of bio-diversity, maintenance of environmental balance, sustainability of local culture, preventing environmental pollution and safeguarding eco-friendly tourism. Thus, eco-tourism offers an opportunity to know the boundless creations of nature and develop the habits of treating the environment responsibly out of conscious efforts. Eco-tourism has paved the way to the sustainable development and flourishing of the tourism industry and massive economic development. Therefore, it can be said that eco-tourism plays a very important role in ensuring due care for the environment. So, eco-tourism is in high demand. Eco-tour guides, for assisting the eco tour, are also in demand. Another very positive aspect of eco-tour is anyone can be benefitted from eco-tourism. There is no need of setting up big companies for this. A farmer or a local person can offer eco-tourism services at their residence. In the case of eco-tourism, tourists will stay at the farmer's place; have meals with the farmer's family, work with them and roam around the farmer's locality.

The potential of eco-tourism in our country

এমন দেশটি কোথাও খুঁজে পাবে নাকো তুমি
সকল দেশের রাণী সে যে আমার জন্মভূমি

Having been charmed by the beauty of this country Poet Dwijendralal Ray declared this hundred years ago in his poem. His claims are still found to be true. This Bangladesh of ours is enriched with natural resources and beauty. That is why eco-tourism has huge potential here. The diverse cultural heritage and civilization that has been enriched for thousands of years along with the flora and fauna, history and heritage, geographical location, variety of natural ornamentations, hills and rivers, plants and vegetation, *haor-baor* and sea, coral islands, long beaches, hilly creeks and waterfalls – all these are unique components eco-tourism, which have made Bangladesh an attraction to the world. There are such tourist spots spread across the remotest parts and the peripheral locations of the country. The green serenity of nature and the blue water bodies of this country soothe the tourists' minds with a touch of tranquillity. If we can showcase them keeping due environmental harmony, eco-tour will bring huge economic success to our tourism industry. And a huge number of eco-tour guides will be required to meet the demand of assisting the management of these tours.

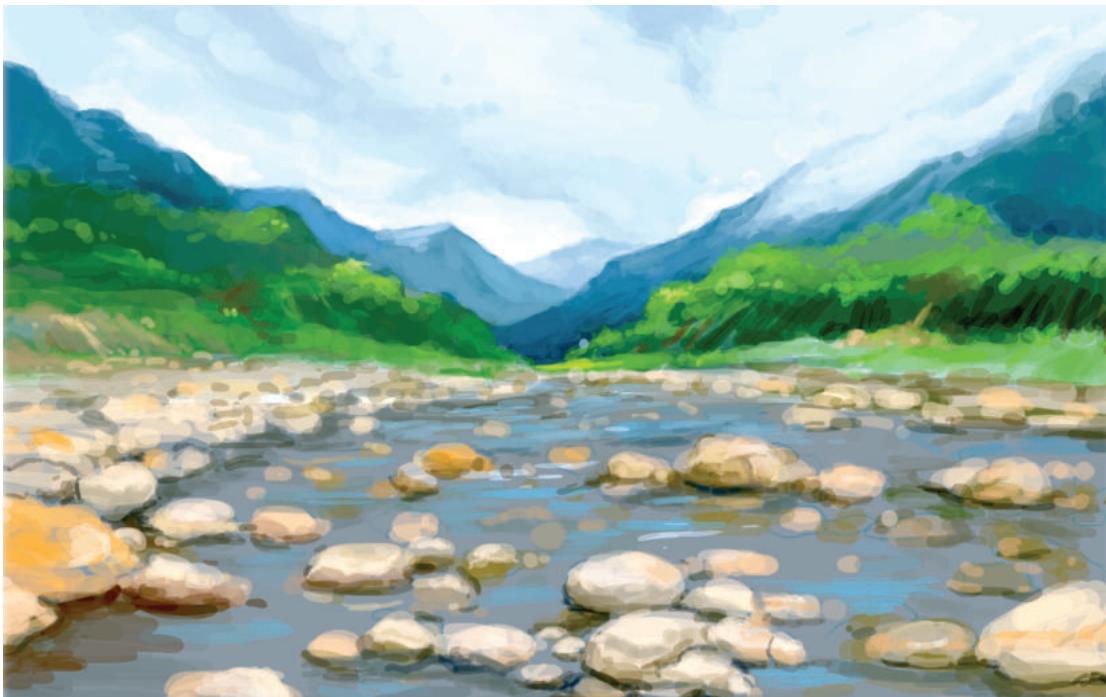


Figure 7.2: An eco-tour spot in Bangladesh (Bishanakandi, Sylhet)

Group work

Eco-tour spot

Get into the previous groups and through discussions in each group make a list of the important tourist spots in Bangladesh. First of all, any group will present the list made by them. Then make this a compiled list by including the spots mentioned by other groups but have been excluded. Display the list in your class.

Benefits of eco-tour

There are many benefits of eco-tour. This creates the opportunity to expand economic development in the remotest areas. Moreover, it showcases the cultural diversity and practices of different areas to all. Therefore, it can be said that, in an area, this-

- helps maintain the environmental and ecological balance
- enhances economic activities and increases employability
- contributes to the protection of art and culture and, strengthens history and heritage

- strengthens social bondage
- helps habit formation through conscious efforts for protecting biodiversity

How to start eco-tour guiding?

First of all, information and data regarding the significance of our area need to be collected. What are the history and traditions of this area? What are the main art and culture? What special contribution does this area have in the war of liberation? Which famous people come from this area? What is produced in this area? What natural attractions are there in your area? (rivers, hills, canals and swamps, forests, old trees, antiquities etc.). What special food item in your area is very famous or popular? What cultural significance do these food items have? How are the lives and livelihoods of the people in this area? Is there any ancient structure? First, you need to know the historical significance and the history behind them and much more relevant information like this. Nowadays, locality-based travel diaries are available in social media which can also be the sources for gathering information. For example: There lies an ancient memorable Rupsha Zamindar House at the remote area of Chandpur. This can be a place of special interest. We need to enrich our knowledge about this place from learning its history locally and also from the information from various sources. We can become a skilled eco-tour guide by collecting information on the specialities of our own locations.



Figure 7.3: Rupsha Jaimindar House of Chandpur

Objectives of eco-tour guiding

The main objective of tour guiding is to make the tours safe, anxiety-free and comfortable for the travellers. In addition, some other objectives are-

- to run and manage tours skilfully ensuring the most economical use of time
- to give the tourists a clear idea about the environment and ecology of the tour spot
- to share the tour schedule with the tourists in due time
- to inform the correct information, data, and history relating to the tour spot
- to ensure the safety and safe travels for the tourists from the beginning to the end
- to develop habits of environment-friendly behaviours among the tourist during the tour
- to take all possible steps required for a successful tour and implement them.

How is (could be) an eco-tour programme?

Eco-tour programmes can be based on either a locality or a theme. They may range from a tour of the duration of one day to several days or even a month. The programme needs to be organised as per the tourists' purpose and needs. Eco-tours could be of various types:

Nature tour: These types of eco-tour programmes are usually undertaken to observe the natural environments (woodlands, hills, rivers, canals and swamps, and old trees etc.). For example, programmes like hiking in the mountains or woodlands, observing swamps and *haors*, watching birds in different regions, boat rides in the rivers or swamps etc. are included as eco-tours.

Agro-tours: Usually such tours are organised to observe and gain practical experiences of the agricultural activities in a certain area. For example, programmes like observing farms, visiting fruit or flower gardens, observing the methods of producing crops etc, are included in this type of tour.

Community development tour: Such tour programmes are organised for the development of a certain area. Taking part in activities such as making embankments, schools, setting up tube wells, planting trees, social forestry etc. included in this type of programme.



Group work

Selecting eco-tour spots in your area

Choose a spot through group discussion using the list of the potential eco-tour attractions in your area that you have made already in the same group. While choosing the spot, take into account the objectives of eco-tourism and other relevant issues to consider.

Drafting a tour plan

A nice tour plan makes the total duration of the tour enjoyable and free from anxiety. For this reason, an effective and well-thought-out tour plan needs to be drafted for an eco-tour. The things that one needs to keep in mind while drafting that plan are:

- duration of the tour
- number of tourists/guests/visitors
- any special support required by any of them/if required what type of support
- the starting and ending spots of the tour
- which spots will be visited, what to see, and what to know (as per the tour objectives)
- where to eat
- place and time for taking rest where and how long
- Is any special activity included, if so, what is it, where, when?



Group work

Making a tour plan: Make a tour plan through group discussions for organising a tour at the spot already chosen by your team.

Tour Schedule

Each tour should have a particular schedule. This makes the tour convenient for both the tourists and the tour guide. All can prepare them according to the time allocated. This makes it possible to ensure the maximum use of the time. If a member of the team finds it difficult to go to a certain spot, s/he may check the schedule and inform the team and guide of their decision well in advance. For these reasons, a tour schedule must be prepared when preparing the tour plan. A tour schedule may look like this, depending on the nature of the tour spot, type and objectives of the tour. A sample tour schedule is given here.

Time	Place	Activities
8:00 to 9:00 am	City Hotel – Rupsha Jamindar House	Travelling
9:00 to 11:00 am	Rupsha Jamindar House	Site seeing
11:00 to 11:30 am	The market outside the Jamindar House	Having snacks
.....



Group work

Making tour schedule

Following discussions in your group, make a tour schedule as per your chosen design for your selected tour.

Ensuring required logistics as per the tour plan

Many types of logistics are required for a tour. For example, logistics for transportation, places for staying or relaxing, food and water supply, first aid equipment etc. Some of these stuff are needed even before the tour and some are required during the tour. If the tour is arranged at a spot where there is no supply of water and food in the surrounding area, adequate food and drinks need to be carried to the spot. The things could be done to ensure necessary equipment or logistics for a tour-

- a list of all the equipment or logistics that are required for this tour should be made
- stuff that is required before the tour, that should be taken during the tour and the ones that will be required after reaching the spot need to be well identified
- The charges should be distributed among the persons responsible for ensuring these logistics and the persons in charge should be known in advance.
- List of the tour members and their contact numbers should be collected.
- There must be information on the availability of support/backup services in case of emergency/special situation and if required, contact phone numbers should be collected.



Group work

Making a plan for logistics

Make a list of the required stuff (logistics) for organising a tour at the spot selected by your group.

A sample list of the required stuff (logistics)

Logistics	Person(s) who will ensure	Contact details
Logistics required before the tour		
Logistics required during the tour		
Logistics required after reaching the tour spot		

Planning the cost of a tour as per the tour plan

Any programme/event incurs some costs. The eco-tour programme is not an exception. To make a tour programme successful, its cost must be estimated correctly. For example, the transportations cost for travelling to and from the spot, costs for meals, in certain cases entry fees to the spot.



Group work

Planning the costs

Each group will draft a plan for the costs required for organising tours in their selected spots.

Goods/stuff	price/unit	amount/quantity	cost

Tour Confirmation

- to contact the guests/tourists to inform them about the tour
- sharing the tour plan with the guests/tourists
- ensuring confirmation from the guests/tourists about the tour
- if the guests/tourists ask for any changes, and updating the change in the plan

Let's practise eco-tour guiding

- a) Each team will do a role-play following the plan developed by your group for organising a tour at your selected spot.
- b) Each of you will organise a tour programme to visit a certain place or spot in your locality along with one or more family members and you play the role of a tour guide in this programme.
- c) When any of your relatives come to visit your place, make a tour plan and use it to give him a guided tour of the important spots in your locality.

One can call Bangladesh even heaven for eco-tourism without any overstatement. One of the world's mangrove forests the Sundarbans are blessed with rich bio-diversity, the coral island Saint Martins, a unique creation of nature, the world's longest sea beach, Cox's Bazar, the daughter of the sea, Kuakata beach for enjoying both sunrise and sunset, the arcade of greenery, tea gardens of Sylhet, Bichana Kandi, Ratargul, the hilly culture and forests of Chattrogram Hill Tracts, The Sajek Valley, Neel Giri and Chimbuk Hill of Bandarban, The Nijhum Island of Noakhali, Mahasthangarh, Paharpur, Mainamati, Uari Bateshwar, Shat Gumbuz Mosque- each of these is a treasure for us. Not only these famous spots, the small water bodies, gardens and historic places in our small

unions and villages are also attractive and potential jobs for eco-tourism. If, in our quest to explore the varieties found in our locality, we take the initiative to introduce eco-tourism to everyone through skilled guiding, our economy will gain strengths in addition to increased employability.



Figure 7.4: Metopath in Bengal

Let's sing with the rural poet Jasimudding and invite the tourists –

তুমি যাবে ভাই – যাবে মোর সাথে, ছোট সে কাজল গায
 গলাগলি ধরি কলা বন; যেন ঘিরিয়া রয়েছে তায়
 সরু পথ খানি সুতায় বাঁধিয়া
 দূর পথিকেরে আনিছে টানিয়া
 বনের হাওয়ায়, গাছের ছায়ায়, ভরিয়া রাখিবে তায়
 বুকখানি তার ভরে দেবে বুঝি, মায়া আর মমতায়!



Self-evaluation

Describe the tasks that you have done in organising eco-tour with the members of your house or guests.

1. Selecting spots	Which issues did you consider for choosing the spot for eco-tourism?
2. Drafting a tour plan	Which factors did you look at while planning the tour?
3. Preparing a plan of costs	What steps did you follow for preparing the plan of costs?
4. Expressing your feeling on eco-tour guide	Write your feelings and your guardian's feelings on eco-tourism.

Teacher's Comments

Skill Course Two

Care Giving-2

At the end of this course

We will be able to provide various kinds of care (taking medicine, measuring pulse rate, respiratory rate and glucose level in the blood etc.) to the elders in a family maintaining the safety, and will be encouraged to behave with compassion and cooperation with any elder people.

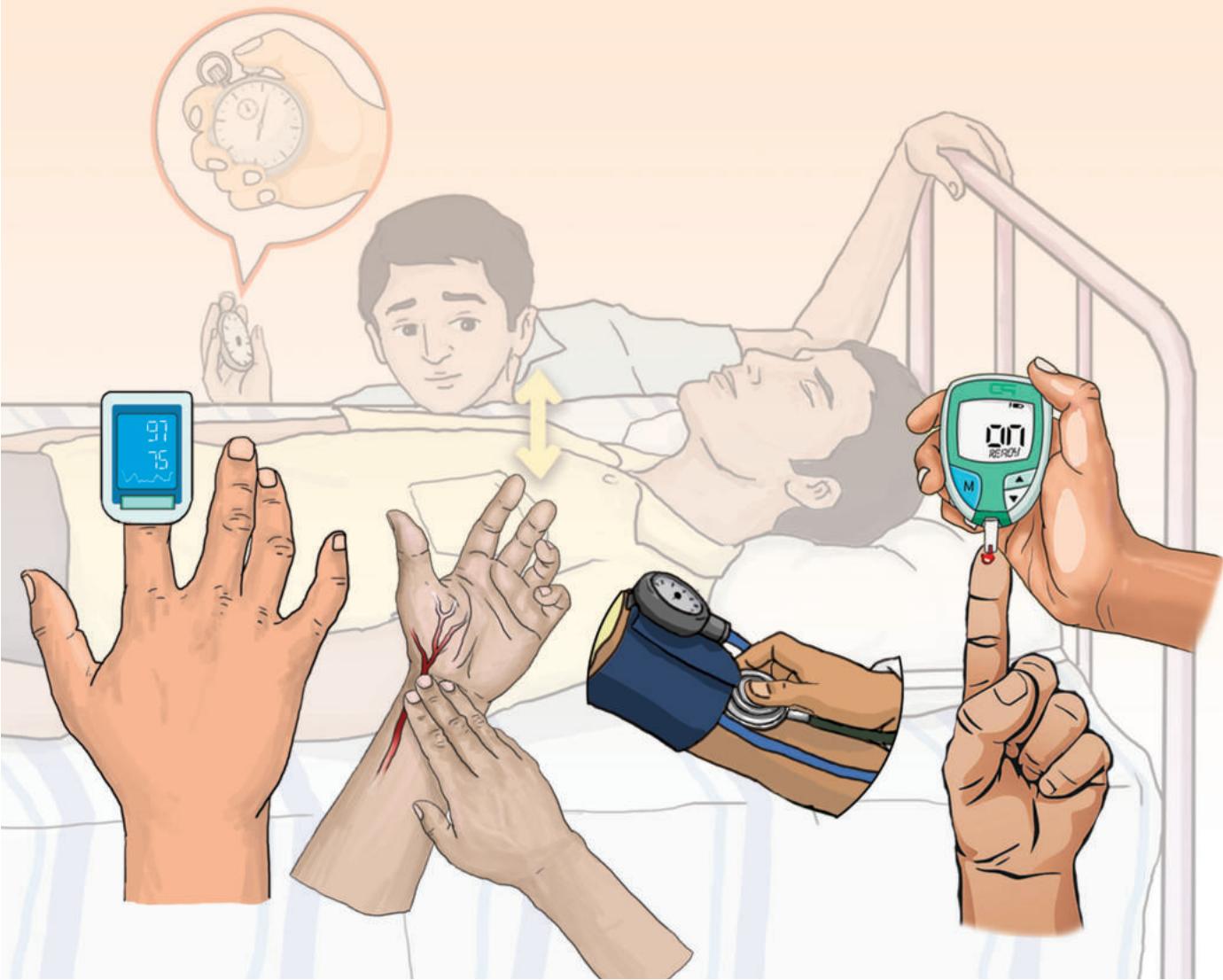




Figure 8.1: Afia helping grandma to come to the dining table

Afia is very happy today, because her grandmother will come after some time. Her grandmother was also quite excited for this as she had got at least one person for the whole day to talk. At last, calling bell rang as Afia expected. She went running to open the door and hugged her grandmother. It seems like grandmother had a heavenly smile on her betel chewed red lips!

Nanu's jar game started on entering the house; at first a bottle of mango pickle came out for Afia, then a bowl of coconut *chira* for father, for brother Mantu, a whole ten cocunt balls (*nadu*) were brought out, and for mother, she brought a two bunch of plantain flower. Mantu said after seeing all, "What have you brought for my paternal grandmother?" Giving a cheeky smile, grandmother said by showing a clay pot, "This is for your grandmother." Opening the lid, Mantu saw milk chitoi pitha in it. Afia said aloud, "Well, this pitha is very favourite to my grandmother! Smilingly with a low tone, she said, "I like it too!" Mantu took on his grandmother again, "Well, grandmother, how do you always remember favourite items of everyone? Ruffling Mantu's hair affectionately, she said, "Listen brother, you will remember everything like this if you have a love for your family."

At night, Afia together with others sat at the dinner. Afia's mother said to Mantu, "Give the meal to your maternal grandmother and paternal grandmother to their rooms." Hearing this, Afia's father said, "Tell mothers to come here, we will eat together." Mantu pulled them both towards the dining room. Happiness of the two mothers-in-law seemed like overflowing! Afia's father noticed that his mother-in-law was facing problem in walking, even though she wore a smile on her face. He said while eating, "Afia, you have school holiday tomorrow, is that so? You will get your grandmother checked up at the hospital tomorrow."

Afia took her grandmother to the doctor, the next day. The doctor advised her grandmother to measure blood pressure regularly, test diabetes, take insulin as per the routine, eat fair amount of food and do a little exercise to reduce the back pain. The experienced care-giver of the hospital taught all these one by one to Afia. After returning home, Afia started exercising her both maternal grandmother and paternal grandmother. Along with this, she also kept observing other work regularly.



Group work

What values and perspectives in Afia's family do we all have to follow?

Welcoming guest cordially

Giving importance to everyone's choice

Loving your family

Eating together with all family members



Individual work

What values and perspectives do we follow in our family?

The values and aspects we maintain in our family:

At some point in our lives, we will all grow old, just like our grandparents as per the law of nature. It may not be possible then to move and do work, the way we are able to do at this moment. Of course, that does not mean that our love, affection, emotion and feelings etc, for family members, will decrease! Let us think for a moment that how would we feel if our closed one does not give us time and does not support us in our necessary work! We only will understand that how much important is the help from others at old age when we think ourselves from their place. So, let us take responsibilities on our shoulders to take care of our grandmothers, grandfathers or any elderly relatives. Let us become experienced caregivers. In today's world, the caregiver is a kind of profession, the demand for which is gradually increasing. The average life expectancy of mankind in the world is rising, at the same time the number of elderly people is also increasing. That is why, in order to ensure the service and care for the elderly people, the demand for caregiver professionals is increasing in the whole world. It is believed that, the need for caregiver professionals will be increasing more even when many professions have fallen into risks due to fourth industrial revolution. We learned at class seven about many works on giving care to the old. In this class, we will practise more something new.

a) Rules and regulations of taking medicine

We learnt some rules in class VII to help patients take medicines as per the advice or prescription of the doctors. Now, we will be learning more in details.



Figure 8.2: Helping grandmother taking medicine

The immunity of our body starts falling a little with the increase of our age. The elderly person at home is often seen suffering from some kinds of illness. Medicines are used for some diseases to cure or to keep under control. Usually medicines are taken orally, some are applied on the skin or pushed inside the body through injection. After taking orally, the medicine is absorbed through the stomach and enters the bloodstream. The medicines which are given as injection mix directly with the blood. That is why injection works quickly. Sometimes, these medicines, which are used to cure certain diseases, often result side effects even though these heal the diseases. As blood flow takes the medicines in different parts of the body, it is observed that, these medicines may also act undesirably at various parts of the body. For this reason, medicines should not be given to anybody without the advice of the doctor.

We have to be specifically careful regarding giving medicine. We are deprived of full benefits for some mistakes during taking medicine. Later, these mistakes can have a negative effect on our bodies. The patients may even expire. So, let us now learn some rules of giving medicine.

- Hand sanitizing: Patients must wash their hands well before taking medicines. We (care giver) will make our hands sanitized by washing well with soap before giving medicine.
- Proper medicine: The medicines brought from the pharmacy must be matched well with the medicines written on the prescription as per the advice of the doctor.
- Duration of the medicine: We have to look at the expiry date on the cover of the medicine. We cannot give medicines if date expires.
- Dosage, route and timing of the medicine: According to the doctor, medicine should be given at proper time through correct route. For example, some medicines are asked to take before meal, again some after food. These advices are generally given on the prescription of the doctor. We have to follow those prescription by reading and understanding well. In case of problem to understand anything, we have to ask doctor or nurse. Doctors usually indicate morning, afternoon and night as 1 + 1 + 1. However, some doctors also write using few shortened words saying about which medicine should be taken when and how.

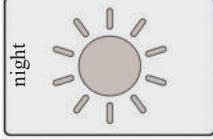
Weekly Medicine				
	Name	Dose/Quantity	Time	Date
 morning	-----	-----	-----	----- (before meal)
 noon				
 afternoon				
 night				

Figure 8.3: Weekly hourly chart



Individual work

Collect a prescription of a patient inside or around your home. Find out whether you can read or not, the dosage of medicine, the instruction on taking the medicine correctly, the symbol and advice on that prescription and prepare a weekly time chart for that patient/person.

My talks (write your experience / feelings while doing your work)

Measuring pulse rate

In many occasions, we try to look whether heart beats are ok or not if anyone suddenly feels sick at home. You must know that human heart beats like an automatic pump with continuous contractions and expansions in the body which is known as pulse. That is, seeing someone's pulse means feeling the rate of their heartbeat. One healthy person has heartbeat of 60-90 Or 60–100 times in a minute. Usually, women have higher pulse rate than males. Again, the pulse rate of the children is even higher compared to adults. The pulse rate can be easily measured at various specific locations on the human body using the fingers of the hands. The name of that pulse is given based on the names of the location. Such as:

- **Radial pulse:** This is found at the base of thumb.
- **Temporal pulse:** This is found at the two sides of forehead.
- **Carotid pulse:** This is found at the two sides of neck.
- **Brachial pulse:** This is found at inner aspect of the two elbows.

Rules of measuring pulse rate

The pulse rate can be measured by touching any of the above mentioned locations in a specific way. The continuous methods for measuring radial pulse are stated below:

- The patient should be kept in a comfortable area at the beginning.
- To get the radial pulse, a gentle pressure has to be given at the base of the thumb of the patient by three fingers in between the wrist bone and the tendon. In this case, the tip of the index, middle and third fingers should be used. Radial pulse can be measured in both wrists of the patient.
- Pressure can be applied by using the base of the fingers in such a way so that every beat can be felt. Blood flow can be blocked if strong pressure is applied. In such case, we cannot get pulse properly.
- In this way, by applying a gentle pressure, pulse beat should be counted for one minute as per the clock. Pulse rate is the result received at this one minute. The obtained result should be recorded, if required.

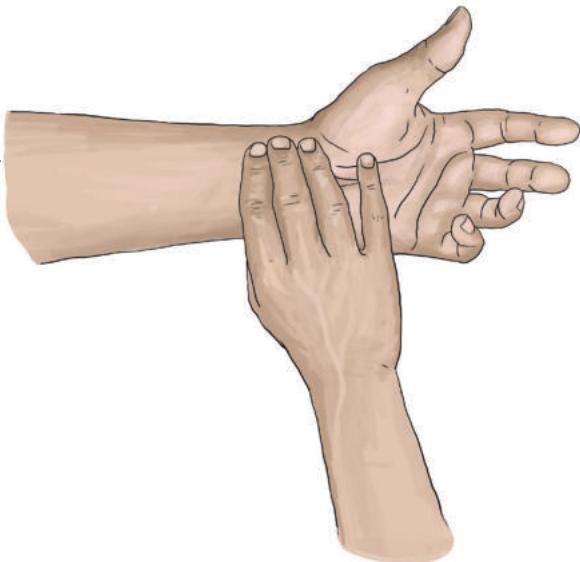


Figure 8.4: Measuring pulse with finger/hand

Group work

Make a group of two. Then, measure pulse rate of each other. Count the pulse beat by counting from 1 to 60 in case, there is no watch. Practise taking pulse rate of your family member at home by looking at the watch.

then the patient must be given an artificial oxygen support. To measure the pulse and oxygen saturation by an oximeter, the forefinger of a patient has to be placed into the digital machine as seen in the picture. Then, after switching on, the level of pulse and oxygen will come automatically on the display in less than 1 minute.

Determining respiratory rate

Doctors often ask to notice respiratory rate of the patient during general examination. This is not that tough to measure. We take air from respiratory system during taking oxygen in the lungs, this is called inhale or breathing in, on the other hand, when we let go our air out containing carbon dioxide, it is called exhale or breathing out. The measurement of the number of times the chest of a patient goes up and down in a minute during breathing is known as respiratory rate. The normal respiratory rate of a healthy adult at rest is from 12 to 20 per minute. However, it varies depending on the variations in age. For example, the respiratory rate of a new born baby is usually 30-60 per minute. It is generally assumed that the person has physical or mental problem if this rate is below or above normal.

Methods of measuring respiratory rate

- It is better to measure the respiratory rate when the patient is in a resting position, sitting comfortably on a chair or lying on a bed.
- We should not tell the patient that his/her respiratory rate is counting.
- By keeping an eye at the level of chest or belly, we have to measure the respiratory rate by counting the number of times the chest goes up and down in a minute.
- Then, it has to be noted in a record sheet.

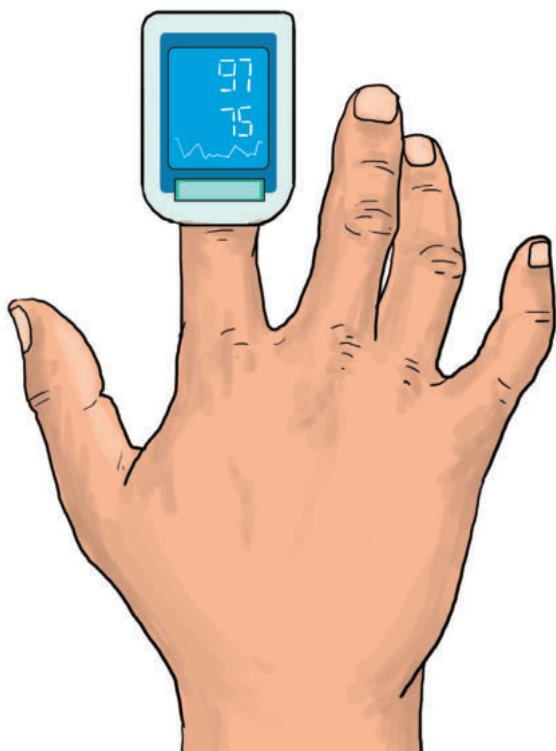


Figure 8.5: Measuring oxygen saturation with oximeter



Figure 8.6: Measuring respiratory rate

Measuring blood pressure

The lateral pressure or pressure that is produced in the inner wall of the artery due to contraction and dialation of the heart during the flowing of blood to the entire body through arteries from the heart is known as blood pressure. Blood pressure depends on functions of the heart, elasticity of the artery wall, desnsity and the amount of the blood. When the heart contracts, then pressure on blood vessels is high, this is called systolic pressure. Again, when the heart inflates, then the pressure on the blood vessels is less. This is called diastolic pressure. Blood pressure is shown with systolic pressure written at the top and diastolic pressure written at the bottom. For example, an ideal blood pressure for a healthy adult is 120/80 mm/Hg; that means, systolic pressure is 120 mm/Hg and diastolic pressure is 80 mm/Hg. But, depending on age and patient, it may vary from 90-140 in case of systolic pressure and from 60-90 in case of diastolic pressure. Always remember, notify the elders at home or the doctor, if anyone's blood pressure is above or below a specific level.

Knowing the instruments for measuring blood pressure

Usually, those having a high blood pressure, must measure it regularly. However, if anyone feels pain at the back of the head or towards neck or suddenly falls ill, then blood pressure has to be measured as per the instructions of the doctor. A device called sphygmomanometer is used to measure the blood pressure. The device can be of three types:

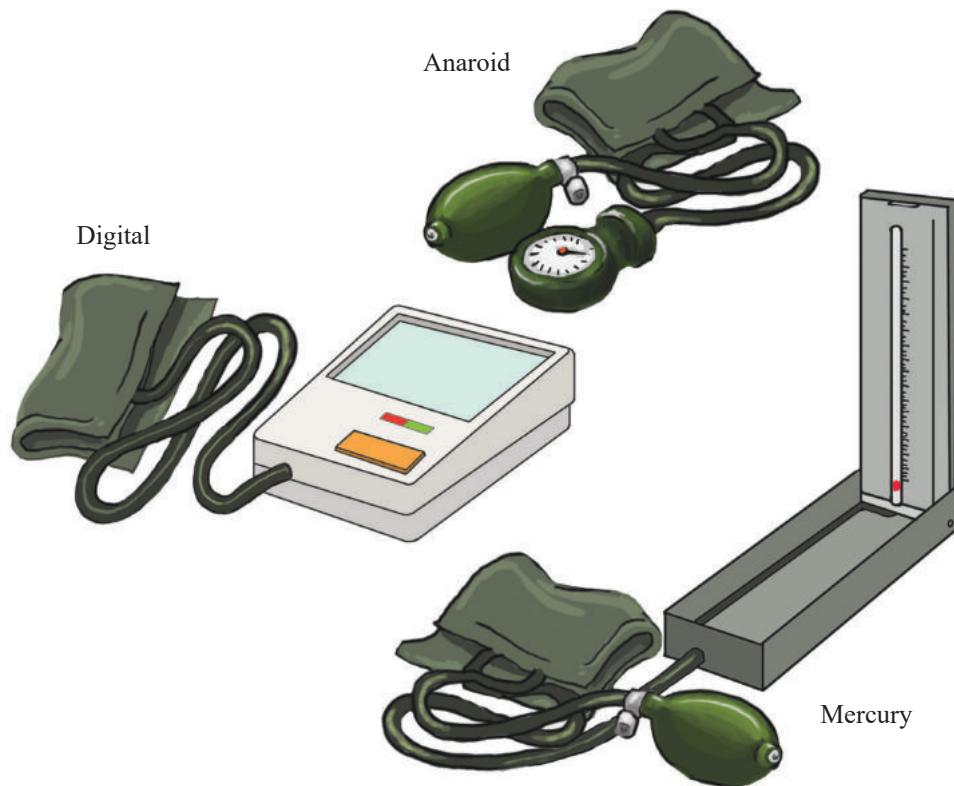


Figure 8.7: Different types of Sphygmomanometer

- a. Anaroid sphygmomanometer
- b. Mercury sphygmomanometer and
- c. Digital sphygmomanometer

To measure blood pressure with an anaroid sphygmomanometer, stethoscope is required. This helps in determining systolic and diastolic blood pressure with the help of sound. In the mercury sphygmomanometer, the result is shown on the mercury meter. Digital sphygmomanometer directly measures the blood pressure and shows the result on the digital screen. But the use of an anaroid sphygmomanometer is high in our country. We will be introduced with various parts of an anaroid sphygmomanometer to measure the blood pressure.

BP Cuff or Blood Pressure Cuff: It is wrapped around an arm of the patient which is used to compress the arm to block the artery. Different BP cuff could be used for elders and children.

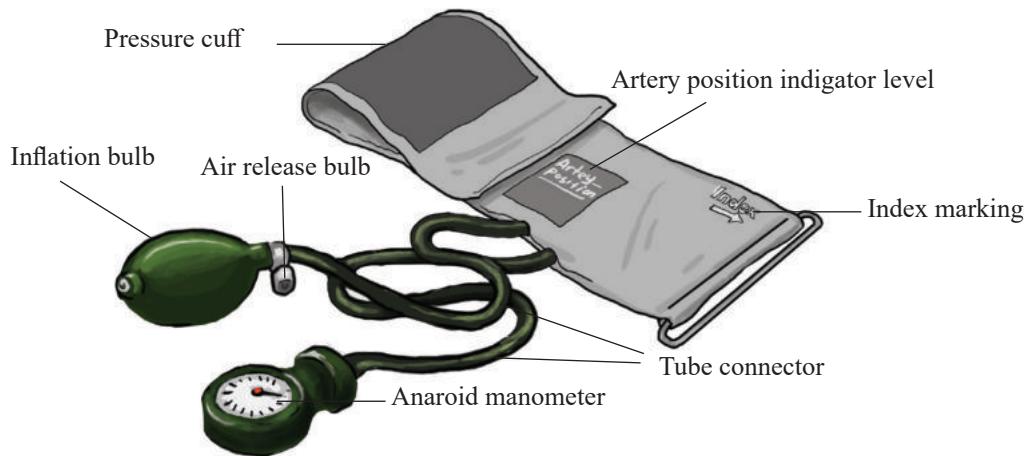


Figure 8.8: Different parts of Aneroid Sphygmomanometer

Air Release Bulb: The entry and exit of air through the BP cuff is controlled by turning the air release bulb.

Inflation Bulb: After closing the air release bulb, air is pumped, as required, inside the BP cuff by pressing the inflation bulb with hands.

Aneroid Manometer: This is a pressure measuring device which measure blood pressure in mm/Hg unit.

Tube Connector: Aneroid manometer and inflation bulb joins with BP cuff with the help of tube connector. Through this, air enters and exits, and again, the hand of manometer rises and falls because of the pressure.

Let us now learn about Stethoscope

Stethoscope: Stethoscope is a device which is used to hear the heartbeat or other internal sounds of the mankind or animals. This is mainly used to listen to the heart beat and the respiration sound. But it is also used to hear the sound of blood flow through the intestines, arteries and veins. To understand blood pressure measurement, we need to familiarize ourselves with the various parts of the stethoscope.

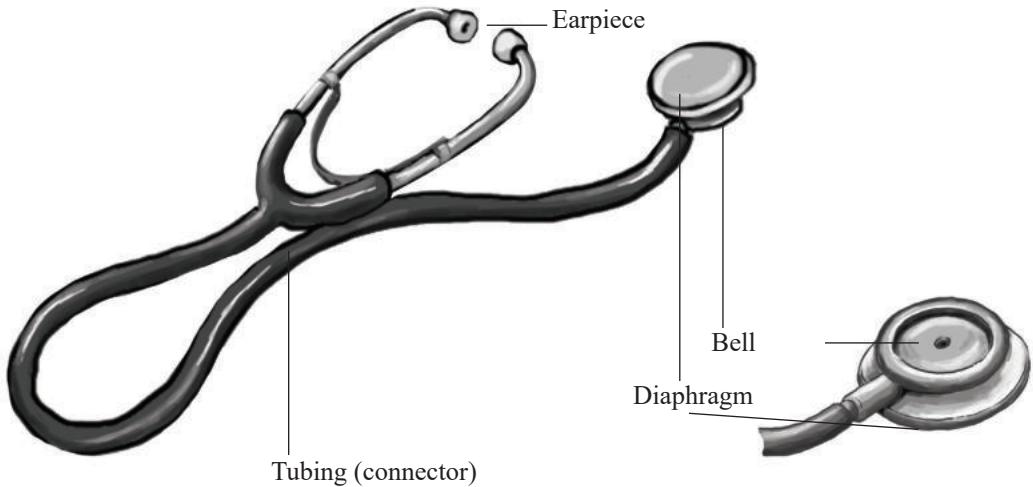


Figure 8.9: Different parts of Stethoscope

Earpiece: After wearing this part, we can hear the internal body sounds if the diaphragm is functional.

Tubing: This is a flexible rubber tube which sends the received sounds from the diaphragm to the ear through the ear piece.

Bell: Bell is placed at the opposite of the diaphragm and it helps to hear a soft and uneven sound. The mouth of diaphragm can be opened or closed by turning this.

Diaphragm: Diaphragm is such a flat part which needs to touch the different parts of patient's body. This, primarily, collects sound and sends to our ear with the help of the tube.

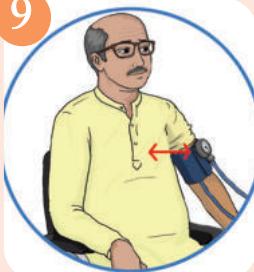
Method of measuring blood pressure

Usually, blood pressure is measured in the arms. However, in case of a person without two arms or with some problems in both hands, then blood pressure can be taken from above knee.

Let's measure the blood pressure following the steps below

- 1**  Wash your hands properly.
- 2**  Sanitize air pitch and diaphragm of stethoscope.
- 3**  Check the blood pressure. Monitor if it is okey or not.
- 4**  Let the patient sit or lie down.
- 5**  Fit your blood pressure cuff well in deflated state around his/her upper arm with the bottom edge placed just 2.5 cm above your elbow to check your blood pressure.
- 6**  Feel the brachial artery by hands on the front part of elbow and set the diaphragm of stethoscope on it.
- 7**  Press the diaphragm in a way that there is no space in between.
- 8**  While measuring the pressure do the next steps without putting your hand on the cuff of the stethoscope.

9



Place the monitor of the blood pressure machine and heart on the same surface.

10



Then feeling the radial pulse, increase the pressure by squeezing the rubber bulb.

11



After stopping the radial pulse, take the pointer 30 mm higher than the last pulse sound was heard.

12



Slowly decrease the pressure. Each beat can decrease 2mm of pressure.

13



Now attentively listen to the sound created from brachial artery while deflating the air pressure in cuff. Keep in mind that when pressure decreases then blood circulation increases and it creates a kind of sound. It is called Korotkoff sound. Korotkoff sound changes gradually.

14



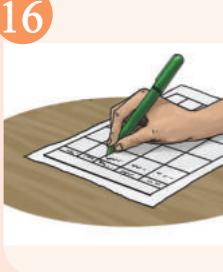
Count the sharp sound you will get at first as systolic blood pressure. When the sound will start, check the reading of the monitor and record it.

15



The harshness of the (Korotkoff) sound slowly reduces and stops at some point. The sound which is heard before this sound that ends, count this as diastolic blood pressure. Just a moment before the sound ends, observe the reading in the monitor and remember.

16



Write the measured blood pressure in the record chart after taking off the BP machine.

17



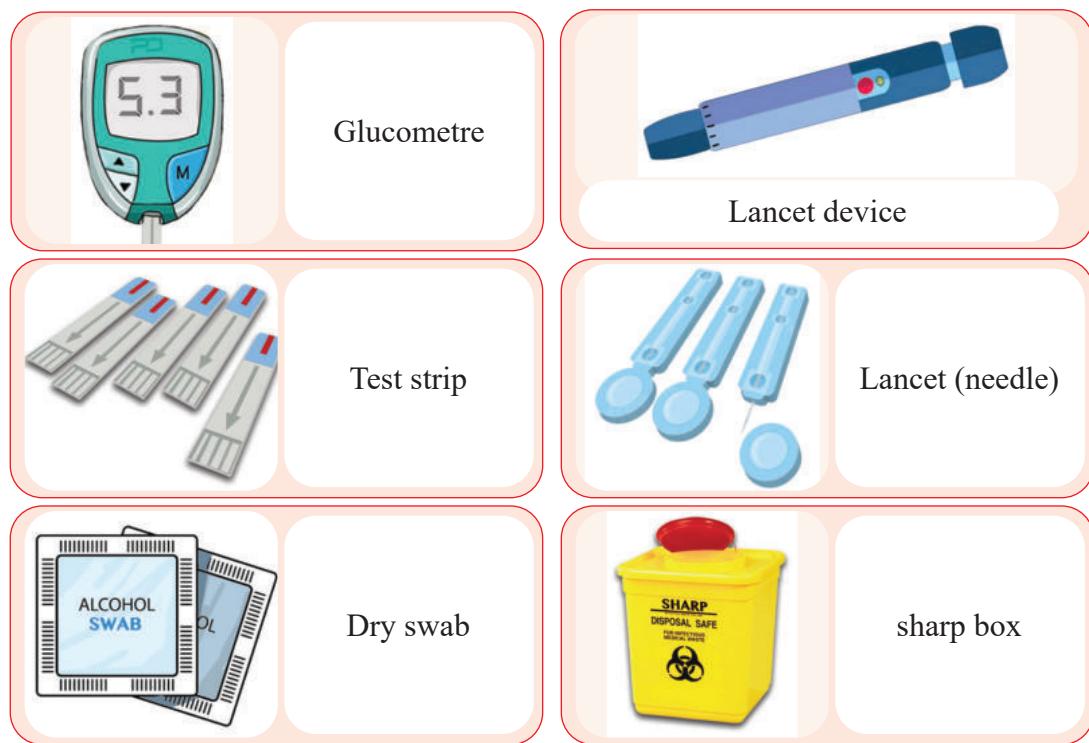
After measuring the blood pressure keep the machine in a particular place.

Measuring blood sugar or glucose

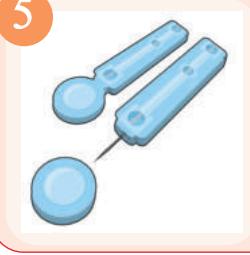
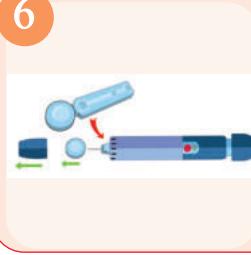
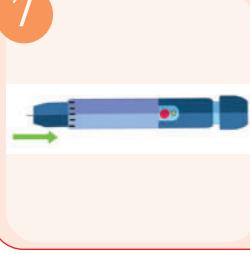
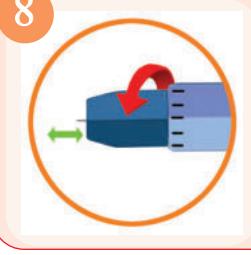
We know, carbohydrates are the body's primary source of energy. When we intake carbohydrate, it turns into glucose or complex carbohydrate and is stored in our body. To maintain normal body function, it breaks down the complex carbohydrates into simple carbohydrates that are suitable for body which is usually done by a hormone called insulin. The eyelets of langerhans of pancreas releases insulin. Usually, it is called normal blood sugar if it ranges 4.2 to 7.2 m mole per litre of blood before eating and if it is below 10 m mole after 2 hours of eating. If the range is high, it assumes as having diabetic. But, blood sugar level may vary regarding age, different complexities due to diabetic, pregnancy, and many other issues.

It is necessary to measure blood sugar regularly for the people of any age. In case of aged people, it is a must to check blood sugar weekly once. But for diabetic patients, as per doctor's advice, this blood test can be done in different times of the day- in empty stomach in the morning, after two hours of breakfast, before and after lunch, before and after dinner etc. This glucose test of blood can be done instantly using a drop of blood with the help of a machine called glucometer. Now, we will practise measuring the glucose of blood with the help of a glucometer.

Let us be introduced with the machine at first-



Now we will practice measuring blood sugar using glucometer in following method.

- 1**  Match the code number of the bottle of the strip with the code of the display panel of the glucometre
- 2**  Check the expiry date of the box of the test strip.
- 3**  Dry your hand after washing it well.
- 4**  Now open the lead of the lancet device and take a new lancet needle.
- 5**  Take away the round shaped part of the lancet needle by moving gently.
- 6**  Load the needle in the lancet device and remove the cap.
- 7**  Carefully set the cover of the lancet again.
- 8**  Fix the depth of the needle according to the thickness of the skin.
- 9**  Pull the liver and leave the lancet device as prime.
- 10**  Take away the strip from foil and insert the strip of glucometer into the slot.

11



Clean your finger tip with dry swab.

12



Keep the lancet device perpendicularly of the finger and softly press it.

13



Prick your finger with lancet device and remove quickly

14



Massage towards fingertip to get sufficient blood.

15



Put a drop of blood on the tip of the strip.

16



Apply dry swab on the prick point.

17



Wait for the reading of the glucometer

18



Write the value projected in the display as the glucose result in the record chart.

19



Remove all used items carefully and properly.

20



Carefully removing the cover of the lancet device, drop it in a covered box.

As people grow older, they experience various health complexities. If there are elderly individuals in our households, it's important to learn to measure vital signs like body temperature, weight, pulse rate, breathing rate, and glucose levels through practice. We learned a little about various courses offered at the vocational education institution in the Second Experience: 'Windows of Skill Development.' The interesting thing is that, a special course named "patient care technique 1" and "patient care technique 2" are running now for Class nine and ten of SSC (vocational) and Dakhil (vocational). We have taken many information mentioned above from there. So, to become a good caregiver, we can take help from the prescribed textbook for the course or to know the details about caregiving.



Individual work

Take regular care of an elderly person who lives in your house in the next week (grandparent, relative, home maid, guard) etc. If there is none like this in your house, then take care of someone in your school or neighbourhood or any relative who lives near you or your parents. Enlist what you are doing for their physical and mental health. You can measure the blood pressure of a teacher or any elderly person of your school, if you have any blood pressure measuring machine and can record the information.

date	To whom service has been given	What type of service is given	Recorded information	Advice for the person
---/---/---	mother	Pulse rate Medicine giving	62 times Daily twice	To take nutritious food timely and to take rest

Things we do for our children in the family

The main attraction to return to our home is the smiling faces of our children. Their restlessness, naughtiness and running around create a joyful atmosphrere in the family. To keep the children better is not the sole responsibility of the parents only, those who are somewhat older also have a few important duties to do.



Group Work

Read carefully the selected case for your team to understand the reality. Discuss in group how you will do your duty in such situations. Prepare a script for a brief acting based on the discussion and perform the act in the class.

Case 1

You are fully focused in doing your assignment. Suddenly, Tuba, your younger sister runs away with your pencil and ruler. What would you do now?

Script on Mime

Case 2

Rupok Barua, your younger brother, went to his elder sister with a picture he painted. She is quite busy for her ongoing exam. Rupak stood for a while and left being sad. Then he went to his father to show his painting; but he said, "I will see later" because he was about to go to bazar. As a result, Rupak became more upset. He was sitting with a tearful look. What should you do at this moment?

Script on Mime

Case 3

You went to have a shower, then you saw that your younger brother was trying to use your father's razor. How would you stop him from doing so?

Script on Mime

Case 4

Your parents mostly stay away from home for their job. They can't give enough time to your younger sister. Even if they return home, they remain busy with huge household work. The poor child cannot get any scope to play because nobody of her age lives around her residence. So, she plays with mobile all the time. What can you do to reduce your sister's attraction towards mobile?

Script on Mime

Case 5

Your younger sister is playing with coins, beads, marbels etc. with the children of her neighbor. Suddenly, you saw that one of the children puts a marbel inside his mouth. What should you do at this moment?

Script on Mime

Case 6

Guests have arrived at your home. Your younger brother does not want to come in front of them at all. He wants to hide behind your mother. How do you teach your brother what to do when guest comes?

Script on Mime

Now, we have learnt to take many small responsibilities of a family. We have to take care of our younger brothers, sisters or any other family members. The things we need to do for caring the young children are-

Appreciating their work: We will appreciate when young ones from a family do the good work, this will motivate them to do much better.

Correcting them with a smile: Instead of punishing or scolding the young ones for their mistakes, we will speak to them gently so that they can understand the damage that has been done for such task. In no way, we should speak with the young angrily or shout at them. When scolded, children often become adamant and repeat the mistake. We should not speak to them excitedly; and we should not argue with others about any topic in front of them. In such situation, we should put them aside so that they cannot

see or hear. We will make them friends, keep them calm in case of any quarrel goes on among them; this will teach them to be patient.



Figure 8.10: Telling children to be careful while playing with sharp things

Always keeping a watchful eye: We will always be very careful to see whether these young children are playing with dangerous things like fire, knife, scissors, electric wire, switch etc., whether they are putting solid things in their mouth like (seeds of tamarinds, berry, dates, coins, marbles, beads etc.) or whether they are playing with the things that can hurt them. We will tell them nicely about what harm these can bring and teach them about how to remain safe.

Supporting to develop healthy habit: It is very important for us to teach and remind them to brush teeth regularly, wash hands before and after meal, follow the etiquette of eating, cut nails, use bathroom and toilet with cleanliness, sleep timely, do small work on their own etc. in order to develop healthy habit among the children.

Participating in sports and entertainment: We will give some time from our busy schedule to our younger brothers and sisters so that they won't feel lonely. We will try to do work such as - talking to them, playing with them with their favourite toys, reading likable comics, reading them out the story books, taking them out to enjoy nature etc.

Make them habituated with social customs: Children loves imitating, they will learn on their own by observing our behavior. That is why we should always speak the truth with them, talking smilingly, saying sorry for any mistakes and thanking them for any good work. In this way, they will also practise these behaviours regularly.



Individual work

Let us make a list of work that we do for the younger members of our family. Then we match with the above list. Tick (✓) which we do and think a little about why we don't do those, or what are the benefits if we do and find out what are the problems that arise for not doing. Now, let's decide how we should treat our younger brothers and sisters and start practising it at home.

Things that we do for our disabled family members

Each person has difference in capacity and needs. Some of those are various types of disabilities in humans. Such disabilities are a part of our diversity. It is not true that disabilities mean they don't have potential. There are intelligent and super-intelligent people also among them. There could be some physically and mentally challenged persons in our family. They need various support in different occasions. As a family member, it is our duty to extend our hands of cooperation towards them.

Scenario 1

With the ringing of tiffin bell, all went running to the field. The sound of excitement, joy and noise keeps coming. Jhuman was coming towards the corridor in a wheel chair with a tiffin box in his hand. His box fell down as he was suddenly hit by a learner who was coming from the opposite direction. He let go a big breath by looking briefly at the tiffin box on the ground. Then he stared at the field – where children were running, playing and enjoying. An unseen tear lingers, yearning to escape from within him!



Group work

Prepare a list of the things we could do for Jhuman. Determine, what we will do from today for those who are like him.

Many kinds of support are required for a differently able family member. Such as - help in daily work, support in jobs, cooperation in guidance and counselling etc. It may not be possible for us to provide all types of support. We will do up to that part which are possible for us. Such as:

- We should never make fun or humour for their disabilities. We should not say any such words or do any activities in front of them for which they may feel ashamed, embarrassed or sad.
- We can extend our hands of cooperation by assisting them in small work such as forwarding something towards them, helping them to hold something, supporting them in taking meals or make others understand their signs etc.
- We must try to include them also with our games. We will try to create a scope for them to join in any social programme or events. We will play the role in making a context to make sure that they can mix freely with friends.
- We will try our best to help them cross the road, collect the food, carry the loads or bags etc.



Figure 8.11: Having fun with the whole family

In recent time, the rate of disabilities has increased significantly due to environment pollution and mental stress, various reasons including accidents. That is why, a profession of different nature named 'Disability Care' has developed in almost all the countries in the world. Demand of various types of professions for the daily needs of the differently abled person has increased. These professions include: special care giver, teaching assistant to support teaching, alternative language interpreter to help them in communication, therapeutic supporter to assist in physical exercise and therapy, occupational therapist to aid in office work, guiding council for mental care etc. We can also see various types of training and service-oriented jobs in order to develop their certain skills based on their needs. In Bangladesh as well, there are specialized quota opportunities for education and employment for individuals with special needs. There

is no scope for the society to progress leaving them behind. Hence, from a humanitarian ground, it is our responsibilities as a person to help them move forward as much as possible. Accordingly, let us extend our hands of compassion to all including children, people with special needs and elders in our family.



Project work

Arrange a health campaign in the school. Write a report about campaigning after finishing it.

While planning the health camp, discuss with your head master, students of senior classes, guardians, and the teacher of this subject. Plan well about the issues like - when, on what time, how you will collect the items of health campaign, what types of service you will provide in the camp, whom you will invite, how you will decorate the camp etc. As it is a special event so will be its different management. Make an excellent arrangement by planning all together.

দাদির কাছে রাতবিরেতে গল্ল শোনা,
 দাদার সঙ্গে ভরদুপুরে ঘাটে!
 নানির কোলে আবদার বোনা,
 নানার পিছে যত মেলা আর হাটে!

Once upon a time, there was a lovely period when opportunities to spend time with grandparents were cherished within family. With the pace of time our business has increased. For the excuse of this business these sweet relations and moments are disappearing from our family.

The elder members are sheltered in the banished old home named “ anondo ashroy”. But there was a time they worked tremendously for the wellbeing of the family. It is very essential to be careful so that they cannot be titled as burden after losing their energy. Because after a few days we will be in their row! Some become unreasonable and simple like a child. This is very natural; tomorrow we will be also in the same place! So, we will not talk with them in threatening tone. We will also not behave in a way that they can be hurt. Despite of our tremendous business, we must spend time with them, take them for outing, must try to keep their body and mind fresh. Because, we must keep in mind that once we grew up with their affection and love! So, let the elders of our family be cared, let each of their moments be wrapped by affection.



Self-evaluation

- a) What are the issues we need to be careful about while measuring the blood pressure?

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- b) What are the things we should careful about when giving medicine following doctor's advice?

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- c) What should we do if we find any amount of vital signs less or more than the normal level?

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- d) What have we done for the wellbeing of the elder members of our family (father, mother, brother, sister, grandfather, grandmother, or any permanent or temporarily staying relatives, home maid)?

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- e) What is their feeling after getting service?

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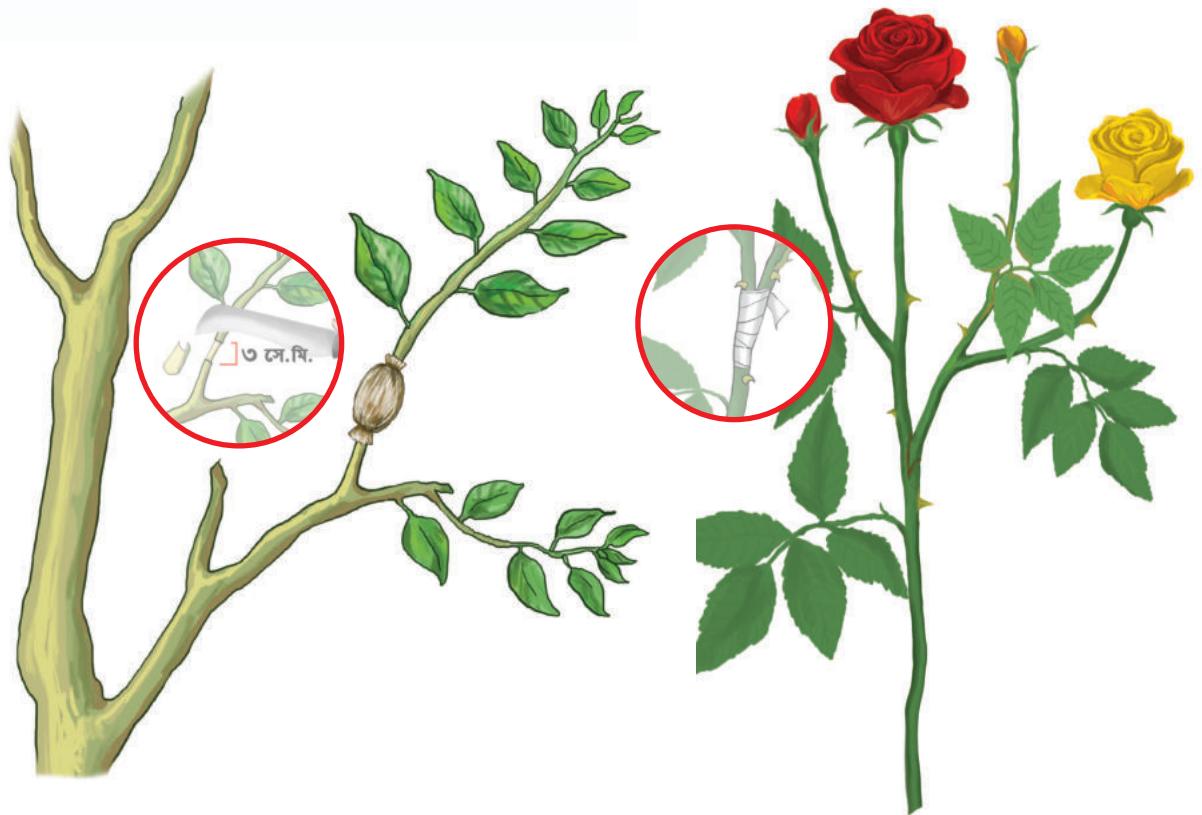
Teacher's comment:

Skill Course Three

Grafting and Air Layering

By the end of this lesson,

we will be able to graft different types of trees at low cost
in accordance with the environment and utility.



Story of Grafting

Shetu and Rikta are friends. Shetu's place is full of different kinds of plants and trees. Rita plays *Ekka-Dokka*, *Shat Guti*, and *Kanamachi* on the bank of a pond under the shade of a Mango tree. The tree at the bank of the pond has a good harvest of mangoes this year. The colour of those mangoes is so tempting. One day, she cannot control herself. So, she takes permission from her mother and, along with Boshu, Hena and Milon climb the tree and pick lots of mangoes. They enjoy them. They are fascinated by the great taste of the mangoes. Rikta has never had such a delicious mango before.



Figure 9.1: The mango orchard in setu's house

Being curious, she asks Shetu, ‘Will we have the same mangoes if we plant the seed at our homestead?’ Karim Uncle while passing by the pond hears them and replies smilingly, ‘Listen, you won’t even need the seeds. All you need to do is to take a shoot from this tree and join it with one that bears sour mangoes at your place. Then the tree will produce sweet mangoes like this one.’

Everyone says with surprise, ‘Really, Uncle?’

Karim Uncle explains, ‘If you attach a twig from a tasty mango tree to the rootstock of another mango tree that grows sour mangoes, you will start getting tasty mangoes from the joined shoot.’

Rikta becomes impatient. She says, ‘Uncle, please promise that you will teach us how to do this.’

Seeing their curiosity, Karim Uncle laughs. He says, ‘Okay, done. However, can anyone tell me the advantages of grafting?’

Boshu says, ‘Easy. It takes so long to grow from a seed to mature trees that produce mango. If we graft, we won’t have to wait that long.’

Shetu says, ‘Boshu is right. We will have fruits more quickly, right, Uncle?’

Karim Uncle says, ‘Right. Besides, it allows scion cultivars to retain their desirable qualities and tastes. Also, we can spread an improved variety of trees all over the country.’

Rikta says, ‘Well, we understand. Let’s start doing it now.’

Karim Uncle starts training them. Let’s learn what he teaches them-

Knowing grafting

Grafting is known as *Jor-Kolom* in Bangla. In Grafting/Jor-Kolom we need two trees. One is the parent plant (the one selected to collect the twig from). The other is ‘Rootstock’, with which the branch will be attached. Here, the tree with sour mangoes at Rikta’s place becomes the rootstock if a twig from another tree with sweet mangoes gets attached to it.

On the other hand, the desired shoot we are taking to attach with the rootstock is called the ‘scion’. The shoot taken from Shetu’s tree to join with Rikta’s tree is the scion. The Bangla for Scion is ‘*Upojor*’

The process of the rootstock and the scion being attached and growing together as a single tree is known as grafting. In other words, the rootstock is the lower portion, and the top part of the grafted plant is the scion.

You must have learnt how to recognise the rootstock and the scion. The desired scion is attached to the rootstock to create a new plant.

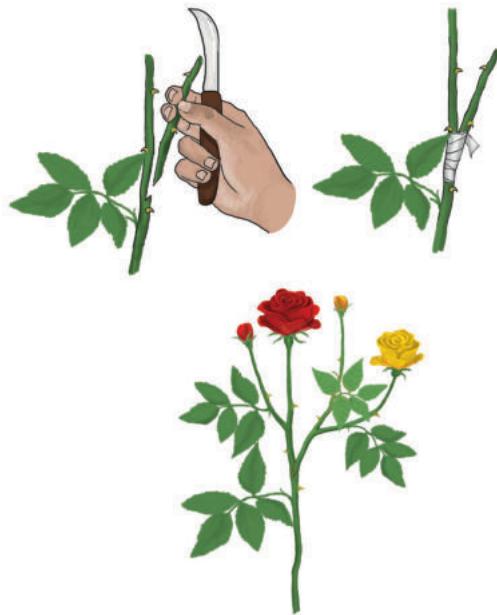


Figure 9.2: Grafting

Which trees are suitable for grafting

Usually, grafting can be done from the trees that grow Lemon, Mango, Jackfruit, Sapodilla, Jujube, Rose, etc.

We must consider a few things while selecting the rootstock and the scion. Some of the points are described below:

Things to remember while selecting the rootstock

If any plant is selected as the rootstock, it must be around 1-1.5 years old. If any shoot is chosen as the rootstock, it must be 1 to 1.5 years old. However, in the case of a rose, it needs to be 3-4 months old, and the diameter of the stock needs to be 1 cm.

- The plant must be healthy, disease-free, and as thick as a pencil.
- The plant or the shoot needs to be as strong as wood.

Things to consider while selecting the scion

- A scion should be collected from a healthy and big tree.
- The scion needs to be as old as the rootstock.
- The scion needs to be as big as the rootstock branch.

Appropriate time

The appropriate time for grafting is the months of *Boishakh*, *Joishtho* and *Ashar*. That means the time before the Rainy season is the right time for grafting.

Tools needed for grafting

Some tools are needed for grafting. These are:



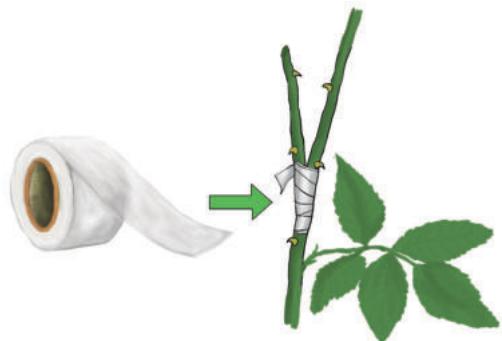
Knife for grafting

Knives are used to make the 'V' shape in the rootstock and the scion.



Pruning Shear

These are used to prune the twigs



Polybag

After inserting the scion into the rootstock, we use a polybag to cover the scion until the top part and the lower part are completely united with each other (to avoid excessive moisture loss).

Polythene tape

The point of union is tightly held together with polythene tape and sufficiently covered to make sure water cannot enter the point of union.

Grafting in steps

a) Preparing the Rootstock:

- At a height of 15-25 cm from the ground, a small piece of wood with bark
- should be cut/pruned diagonally from top to bottom, 3-5 cm long on either side of the seedling with a sharp knife.

Caution:

Special care should be taken while pruning the branches with a knife. You must be accompanied by an adult during this work



Figure 9.3: rootstock

b) Preparing the scion

- Scions should be taken from a shoot with 2-3 growing buds.
- The scion should be made equal (3-5 cm) to the cut/pruned portion of the rootstock with a sharp knife.
- A V-shape should be made behind the cut/pruned portion of the scion so that it exactly matches the rootstock.

Caution:

Special care should be taken while pruning the branches with a knife. You must be accompanied by an adult during this work.

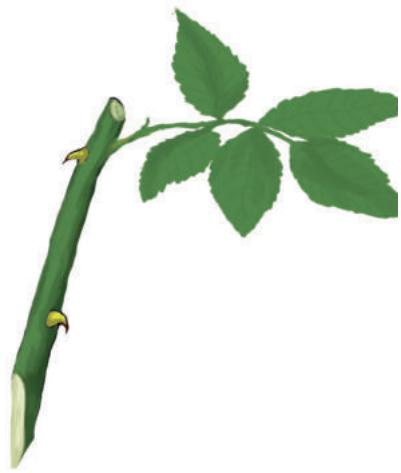


Figure 9.4: scion

c) Joining

- The pruned parts of the rootstock and scion should be joined face to face in such a way that there is no gap inside.
- Then tightly twist and tie with polythene tape.

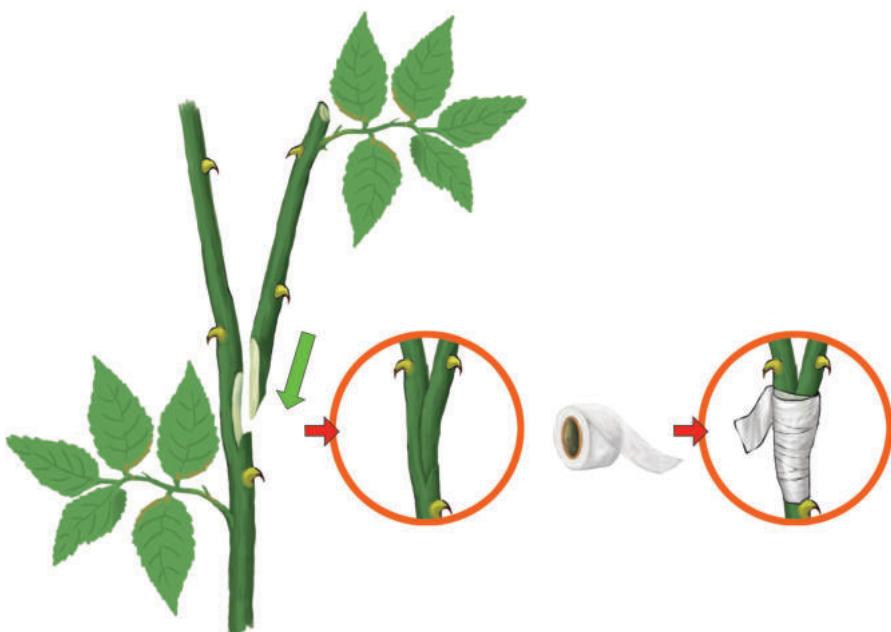


Figure 9.5: scion

- The scion needs to be covered with polythene.
- Within 2-3 weeks, the scion will be attached to the rootstock.
- New leaves will emerge from the buds of the scion.
- The polythene should be removed at this point.
- When the scion and rootstock are joined, the polythene tape should be torn or cut slightly with a blade. But most of the time it gets torn by itself.

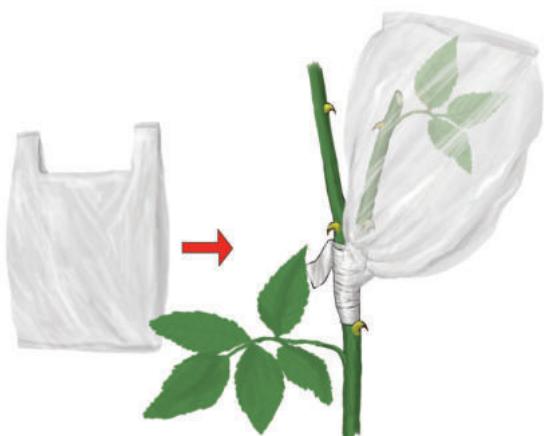


Figure 9.6: rootstock and scion

Things to do for nurturing techniques

- When the new leaves of the scion gradually grow and acquire a green colour, one third from the upper part of it should be cut off. It will speed up the growth of the scion.
- After a week, the leaves, and branches of the upper part of the rootstock should be completely cut and removed.
- Then a new plant will be created by the connection between the rootstock and the scion.

A few things need to be emphasised for the success of grafting

- The scion and rootstock must be compatible in age, size, and shape.
- The rootstock and scion should be sealed with polythene so that there are no gaps and water ingress.
- Grafting should be done in the right season (in the months of Baishakh, Jayashta and Ashar).

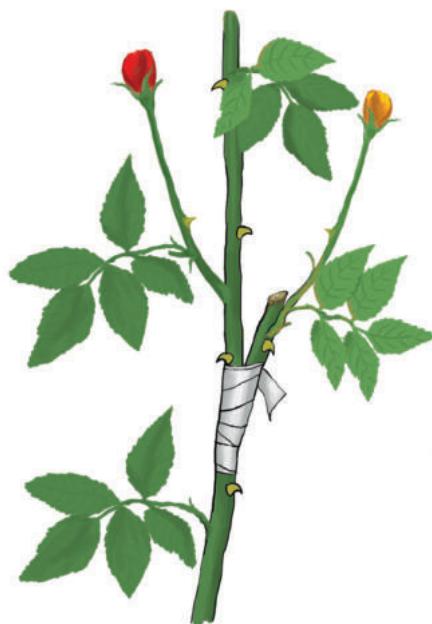


Figure 9.7: Nurturing Techniques

Karim Uncle has taught them the grafting techniques practically for 2/3 days and given some new information. He informs, 'Interestingly, many people earn by delivering the grafted plants to different places. Some people make videos on grafting and make earnings by uploading them on YouTube. You can also learn the grafting techniques from different pages on different websites and YouTube channels. We have the Government Horticulture Centre and the Agricultural Officer in the Upazilla Complex. You can take advice from them. They also provide training in grafting techniques. Learning this, you will be able to grow flowers of different colours in a single tree. You can assist in your nursery or other's nurseries. By grafting with a typical local variety, it is possible to produce many high-quality flower and fruit seedlings. If you want, you can increase productivity by grafting on any tree that is not yielding well. Remember that you might not be successful on your first attempt. This task is quite delicate, and we need to practise with patience, to be experienced in this field.'

All were listening to Karim Uncle. Setu said "Well, is there any other method of doing propagation?"

Karim Uncle said, "Yes, that is also possible. There is a propagation method named Air Layering which is very popular."

Hearing uncle, Melon said, "Uncle! We want to learn air layering too."

Uncle smiled and said, "Okey, I will teach you air layering from tomorrow."

From the following day, Karim Uncle started teaching air layering to all.

Knowing air layering

Air layering is the easiest method of asexual propagation. It is generally used for propagating fruit trees. It is a method of producing a new plant that is identical to the mother plant in all respects, like quality, color and size. The new plant is formed while still attached to the mother plant upon which it depends for water and nutrients until the roots develop. In this method, stems may form roots where they come in contact with a rooting medium. After rooting, the stems are planted in the field. In this type of propagation a large plant can be developed in a relatively short period of time and with less trouble than other methods of propagation. This type of propagation is also known as *Daba kalam*, *Gootee kalam*, Chinese layering, Marcottage and Pot layering, etc.

Plants in which air layering can be done

Air layering is usually suitable for shrubs and fruit trees with low height. It is practised in litchi, lemon, pomegranate, olive, *guava*, *jamrul*, *karamcha*, *golapjam*, *olive*, *kamini*, etc.

Suitable period for grafting

The best time for Air layering is April - June

Steps of Air layering

1. Selecting healthy and disease-free branch
2. Peeling off the bark of the selected branch
3. Moulding nicely the greenish cover
4. Preparing rooting media
5. Covering the cut part by using rooting medium and wrapping with polythene
6. Developing roots
7. Cutting the rooted branch from the mother plant
8. Planting the saplings (new plant) at the nursery, and taking care properly.

Method of doing air layering for the lychee plant

Air layering can be done at any time of the year as long as there is sufficient moisture, but best results are obtained in monsoon.

1. Selection of healthy, strong and disease-free branches

- a. Selecting branches which are parallel to the ground
- b. Selecting a healthy branch of one to two years old
- c. The selected stem should be a pencil like diameter

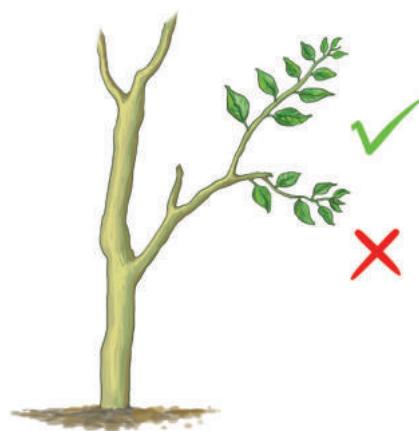


Figure 9.8: Selection of branches or stalks

2. Peeling off the bark of a selected branch

- On the selected shoot a notch was made at 40-50 cm below the terminal portion by making two important round cuts (about 3-4 cm) with a budding knife.
- The first cut was made 1 cm below a bud and the 2nd cut was made 4-5 cm far from the first cut.

Precautions:

Special care has to be taken during peeling off the bark with a knife. We must keep someone elderly with us during this task.



Figure 9.9: Lifting the bark of a branch

3. Moulding nicely the greenish cover

The bark between two cuts was removed and scraping was done to ensure complete removal of the phloem and cambium layer.

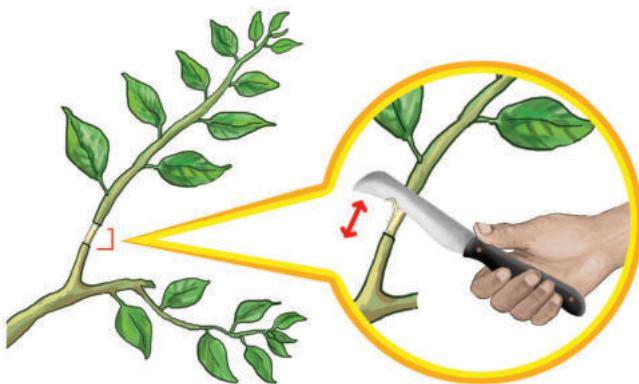


Figure 9.10: Squeezing out the greenish coating

4. Preparing rooting media

Rooting media is a very important part for layering. Rooting media provide food at the time of layering. The rooting media should be made using the following ingredient-

1. Clay loam soil 50%
2. Sand 25%
3. Well decomposed cowdung 25%
4. Sufficient water to make past



Figure 9.11: Materials for rooting

5. Covering the cut part by using rooting medium and wrapping with polythene

- a. Then the notch was covered by mud paste, wrapping was done with polythene bag (20-25cm, square size).
- b. The both ends were tied firmly with ropes.

One of the benefits of using polythene is that the growth of roots inside the layering can easily be seen.



Figure 9.12: Wrapping with polythene

6. Developing roots

Based on the variety of species, it takes from few weeks to several months to grow roots from the air layering. Generally, this method requires 2-3 months to grow roots. The growth of roots in some species of plants can be interrupted. In such cases, rooting hormone can be used. Rooting hormone (such as IBA, NAA etc.) is applied at the cut part of the layering.



Figure 9.13: Rooting in the nodule

7. Separation of sapling from the mother plant

Roots appear in approximately 6 weeks (under adequate conditions 25-30°C). The air layer must be recovered when the color of 6-8 roots can be seen through the bag to be changing from white to creamy brown. Separation is done at two intervals. The first half cut preferably on the lower side of the branches. The second cut was done after 10-15 days from the first cut. Excess leaves should be cut off to prevent water loss. Then the layer is removed carefully and kept in a shady place.



Figure 9.14: Separating the trunk from the tree

8. Planting the saplings at the nursery and management practices

The layered sapling is planted in the pit from the seedbed or nursery bed. That is why, a pit has to be prepared in advance. The process of preparing pits and planting saplings has been discussed in the book ‘Life and Livelihood’ of class VI. Saplings have to be planted in the pit following that process. Proper care should be taken from the day of planting. The management practices have also been discussed in the book of class-VI which has to be followed to proceed with the task.

Practice the whole process 2/3 times with the help from the teacher. If you want, you can take assistance from the nurseries of Government Horticulture Centre, Bangladesh Agriculture University Germ Plasm Centre, Government Social Forestry Nursery Centre, Bangladesh Agriculture Development Centre or from the non-government nurseries.

This sapling method is comparatively easier and suitable for application for those where a huge number of plant seedlings can be produced in less time, grafted seedlings bear fruit in a minimum time compared to seed method, and species where roots are not grown easily by cutting.

Parents have to take and save 2-3 photos of each stage of air layering process in any of their cameras or mobile phones. In case learners’ families do not have any cameras or mobile phones, then the learners will have to draw and save the task on their own. Each learner will write their experience about the process of air layering in their ‘Life and Livelihood’ copy.

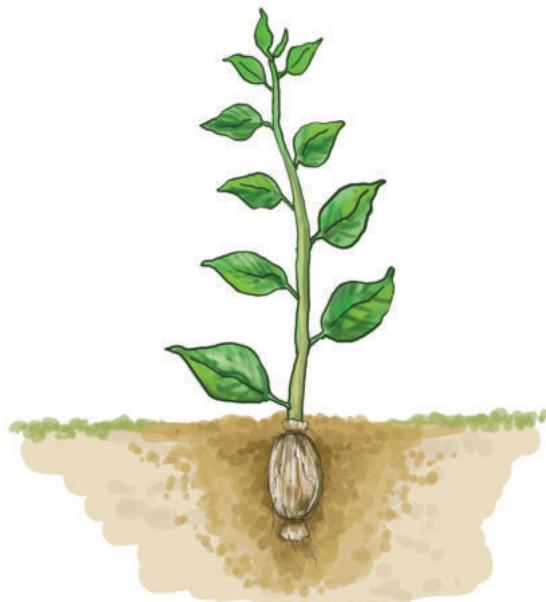


Figure 9.15: Planting nodules in soil



Self-Evaluation

- a. Take several photos of different steps of grafting or draw pictures of those steps in the following box. Bring those to the classroom following your teacher's instructions and present those to your class. If there is an opportunity for printing, then print them on a white paper, cut those photos and paste them here.

Rootstock tree	Scion tree
How I pruned the rootstock	How I pruned the scion
How I inserted one in the groove of other	How it looked like after joining

How it looked like afterwards	Feedback from the Guardian

- a. Take several photos of different steps of air layering or draw pictures of those steps in the following box. Bring those to the classroom following your teacher's instructions and present those to your class. If there is an opportunity for printing, print them on a white paper, cut those photos and paste them here.

Selecting branch	Peeling off the bark of the selected branch
Moulding nicely the greenish cover	Stage of covering the cut part and wrapping with polythene
Cutting the rooted branch from the mother plant	Planting the saplings

How it looked like afterwards	Feedback from the guardian
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My experience in performing this task

Write down whether you felt good or bad to do this task; whether you got any injury/bruises while doing or faced any challenges in completing the task. Write down here what new things you have learnt.

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Teacher's comment:

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কৃষি উন্নয়ন: কৃষিতে প্রযুক্তির ছোঁয়া

স্বাধীনতা উত্তর বাংলাদেশে খাদ্য উৎপাদন প্রায় তিনগুণ বেড়েছে। ধানের উৎপাদন তিনগুণেরও বেশি, গম দ্বিগুণ, সবজি পাঁচগুণ এবং ভুট্টার উৎপাদন বেড়েছে প্রায় দশগুণ। শেখ হাসিনা সরকারের যুগোপযোগী পরিকল্পনার পাশাপাশি পরিশ্রমী কৃষক, মেধাবী কৃষি বিজ্ঞানী ও সম্প্রসারণবিদদের যৌথ প্রয়াস ও কৃষিতে লাগসই প্রযুক্তির ছোঁয়ায় এ সাফল্য এসেছে। এভাবেই প্রধান খাদ্যশস্যের উৎপাদন বাড়ানোর ক্ষেত্রে বিশ্বের শীর্ষস্থানীয় দেশের তালিকায় উঠে এসেছে বাংলাদেশ।

Academic Year 2024

Class Eight

Life and Livelihood



সমৃদ্ধ বাংলাদেশ গড়ে তোলার জন্য যোগ্যতা অর্জন করো
— মাননীয় প্রধানমন্ত্রী শেখ হাসিনা

তথ্য, সেবা ও সামাজিক সমস্যা প্রতিকারের জন্য ‘৩৩৩’ কলসেন্টারে ফোন করুন

নারী ও শিশু নির্যাতনের ঘটনা ঘটলে প্রতিকার ও প্রতিরোধের জন্য ন্যাশনাল হেল্পলাইন সেন্টার
১০৯ নম্বর-এ (টোল ফ্রি, ২৪ ঘণ্টা সার্ভিস) ফোন করুন



Ministry of Education

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