Employability Skills

Textbook for Class IX

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NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
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Foreword

The National Curriculum Framework–2005 (NCF–2005) recommends bringing work and education into the domain of the curricular, infusing it in all areas of learning while giving it an identity of its own at relevant stages. It explains that work transforms knowledge into experience and generates important personal and social values such as self-reliance, creativity and cooperation. Through work one learns to find one's place in the society. It is an educational activity with an inherent potential for inclusion. Therefore, an experience of involvement in productive work in an educational setting will make one appreciate the worth of social life and what is valued and appreciated in society. Work involves interaction with material or other people (mostly both), thus creating a deeper comprehension and increased practical knowledge of natural substances and social relationships.

Through work and education, school knowledge can be easily linked to learners' life outside the school. This also makes a departure from the legacy of bookish learning and bridges the gap between the school, home, community and the workplace. The NCF–2005 also emphasises on Vocational Education and Training (VET) for all those children who wish to acquire additional skills and/or seek livelihood through vocational education after either discontinuing or completing their school education. VET is expected to provide a 'preferred and dignified' choice rather than a terminal or 'last-resort' option.

As a follow-up of this, NCERT has attempted to infuse work across the subject areas and also contributed in the development of the National Skill Qualification Framework (NSQF) for the country, which was notified on 27 December 2013. It is a quality assurance framework that organises all qualifications according to levels of knowledge, skills and attitude. These levels, graded from one to ten, are defined in terms of learning outcomes, which the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning. The NSQF sets common principles and guidelines for a nationally recognised qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, Colleges and Universities.

It is under this backdrop that Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal, a constituent of NCERT has developed learning outcomes based modular curricula for

the vocational subjects from Classes IX to XII. This has been developed under the Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education of the Ministry of Education, erstwhile Ministry of Human Resource Development.

This textbook takes care of generic skills embedded in various job roles in a comprehensive manner and also provides more opportunities and scope for students to engage with these common and necessary skills, such as communication, critical thinking and decision making in different situations pertaining to different job roles.

I acknowledge the contribution of the development team, reviewers and all the institutions and organisations, which have supported in the development of this textbook.

NCERT would welcome suggestions from students, teachers and parents, which would help us to further improve the quality of the material in subsequent editions.

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HRUSHIKESH SENAPATY
Director
National Council of Educational
Research and Training

</div>

New Delhi
September 2020

About the Textbook

Employability skills can be defined as those soft skills which employers look for in a potential employee. These skills equip the employees to carry out their role to the best of their ability and client satisfaction. For example, the ability to explain what you mean in a clear and concise way through written and spoken means, helps to build a better relationship with the client or the customer. Similarly, handling stress that comes with deadlines for finishing work and ensuring that you meet the deadlines can be done through effective self-management training. It can also be done by working well with other people from different disciplines, backgrounds, and expertise to accomplish a task or goal. In today's digital age, employers expect that the employees should be able to make use of elementary functions of information and communication technology to retrieve, access, store, produce, present and exchange information in collaborative networks via the Internet. Students need to develop entrepreneurial skills, so that they can develop necessary knowledge and skills to start their own business, thus becoming job creators rather than job seekers. Potential employees need to develop green skills, which are the technical skills, knowledge, values and attitudes needed in the workforce to develop and support sustainable social, economic and environmental outcomes in business, industry and the community. Thus, as a student you are expected to acquire a range of skills so that you can meet the skill demands of the organisation that you would work for or to set up and run your own business.

This textbook on 'Employability Skills' covers communication, self-management, information and communication technology, entrepreneurial and green skills. It has been developed as per the learning outcome based curriculum. The employability skills are embedded in the Qualification Packs of the different job roles in various sectors under the National Skill Qualification Framework. The textbook aims to provide

learning experience through a blended approach of text and video-based interactive e-learning lessons. Running these e-learning lessons in classrooms would require a computer with Internet connection, projector and sound system, which the school should provide to the teachers and students. The teachers will guide you to actively participate in class — asking and answering questions and following the instructions to complete the exercises and activities.

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Acknowledgements

Do You Know **?**

According to the 86th Constitutional Amendment Act, 2002, free and compulsory education for all children in 6-14 year age group is now a Fundamental Right under Article 21-A of the Constitution.

EDUCATION IS NEITHER A PRIVILEGE NOR FAVOUR BUT A BASIC HUMAN RIGHT TO WHICH ALL GIRLS AND WOMEN ARE ENTITLED

Give Girls Their Chance !

CONTENTS

Communication Skills

INTRODUCTION

Communication skills are those skills which are needed to speak and write properly. A person who is able to speak appropriately whilst maintaining eye contact with the audience, uses varied vocabulary and articulate speech to suit the need of the audience is generally said to be an effective speaker. Similarly, an effective writer should be able to use written words in various styles and techniques to communicate his/her message and ideas to the readers. One should have the ability to listen carefully and write and speak clearly in any situation. Therefore good reading, writing, speaking and listening skills are essential for effective communication.

As a student, you may study any language, but it is important that you are able to read, write, speak and listen well in order to communicate properly. Speaking more than one language can help you to communicate well with people around the world. Learning English can help you to communicate with people who understand English besides the language you have been exposed to speaking the language from easly childhood, for example, your mother tongue. In the present time, a thorough

knowledge of the language with communication skills is very important in any occupation or to set up a business.

Session 1: Introduction to Communication

You probably hear people talking about communication all the time. Everyone needs it and wants it, but what exactly is communication? Let us try to understand it.

The word 'Communication' comes from the Latin word *commūnicāre*, meaning 'to share'. In Figure 1.1, you can see that communication is the 'sharing' of information between two or more individuals or within a group to reach a common understanding.

Importance of communication

Your ability to communicate clearly and share thoughts, feelings and ideas will help you in all your relationships. For example, you can inform about something or you can also influence others through communication. Communication skills are needed to:

- **Inform**: You may be required to give facts or information to someone. For example, communicating the timetable of an exam to a friend.
- **Influence**: You may be required to influence or change someone in an indirect but usually important way. For example, negotiating with a shopkeeper to reduce the price or helping a friend to overcome stress due to exam or any other reason.

Asking for Information

Where are you going?

I am going home.

Receiving Information

Giving Information
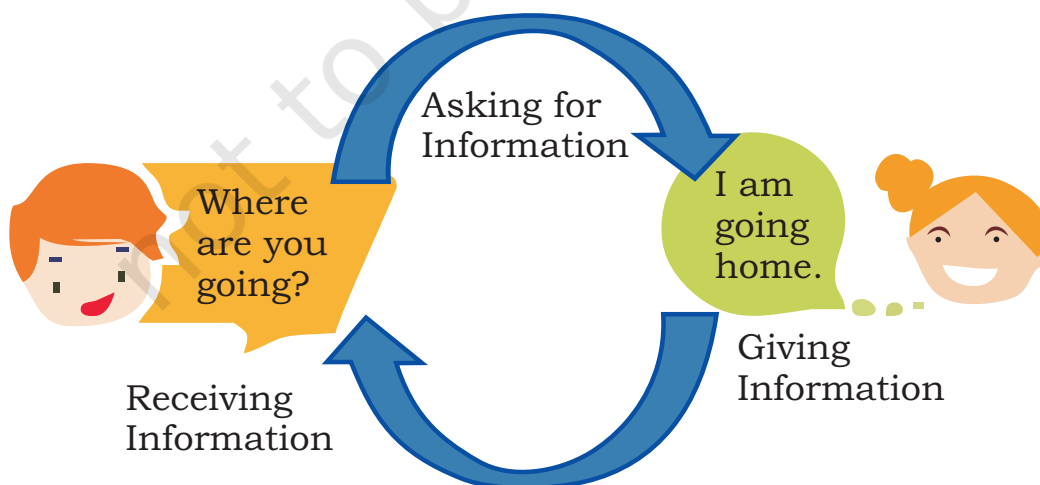
Figure 1.1: Communication Process

- **Express feelings**: Talking about your feelings is a healthy way to express them. For example, sharing your excitement about doing well in your exams or sharing your feelings with your parents and friends.

Elements of communication

Communication is a two-way exchange of information, i.e., giving and receiving (Fig. 1.2). **Speaking and writing** to someone are examples of giving information. **Reading and listening** to someone are examples of receiving information.
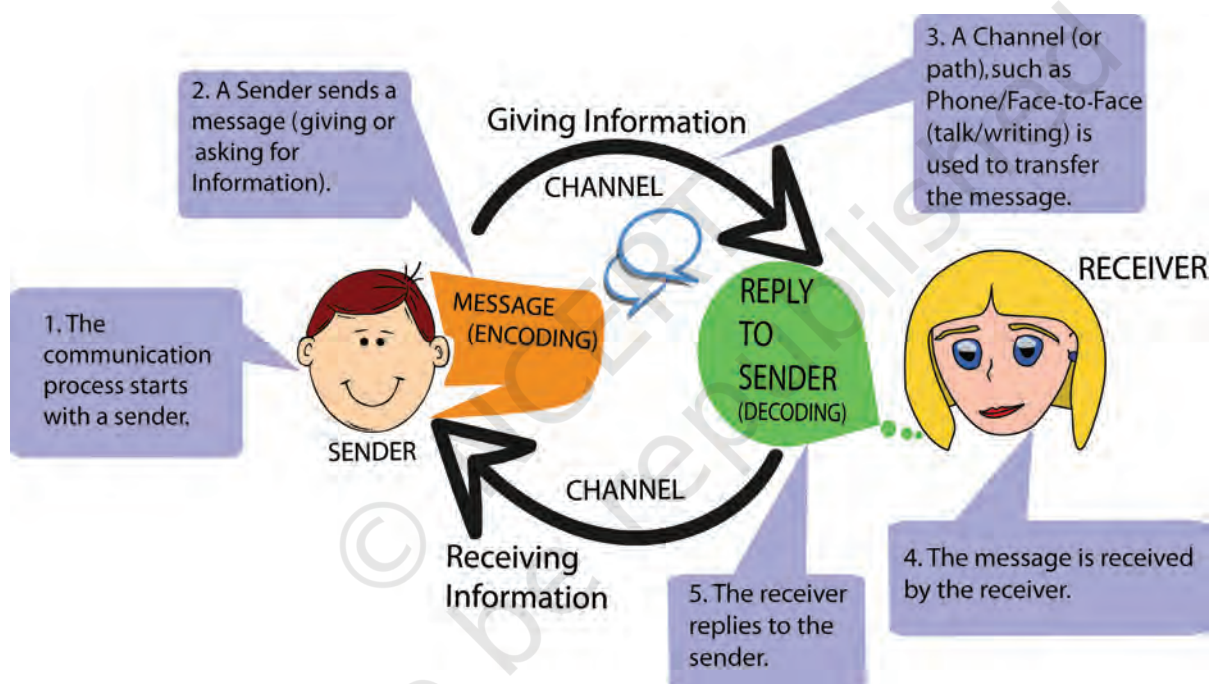
Figure 1.2: Elements of Communication

Perspectives in communication

Perspectives are ideas, views, or fixed ways of thinking. These sometimes affect our communication. For example, if you have a fixed idea that your teacher or father is strict, even when they are being friendly, you may think they are scolding you even though they are polite. In the same way, others may also have fixed ideas about you, which affect whatever you say to them.

Factors affecting perspectives in communication

Sometimes, we are not able to communicate clearly because of barriers that stop us from sharing and understanding messages. Some of these are summarised in Table 1.1.

Table 1.1: Factors affecting Perspectives in Communication

Factor	How the factor can become a barrier
Language	In case of use of incorrect words, unfamiliar language and lack of detail, language can act as a barrier to communicate what one wishes to convey. For example, language can act as a barrier when an Indian who only knows Hindi and Chinese who has the knowledge of Mandarin only want to interact with each other.
Visual Perception	Visual perception is the brain's ability to make sense of what we see through our eyes. For example, completing partially drawn pictures with visual perception whereas they may be something else.
Past Experience	Letting our earlier experience stop us from understanding or communicating clearly. For example, "This shopkeeper cheated me last time. Let me be careful or "I scored low marks in my Maths exam, so I am scared to ask and answer questions in class."
Prejudice	Fixed ideas, such as thinking "No one in my class likes me" may stop a student from communicating openly in the class.
Feelings	Our feelings and emotions, such as lack of interest or not trusting the other person affect communication. For example "I am not feeling well, therefore, I don't want to talk."
Environment	Noise or disturbance in the surroundings may make communication difficult. Example, talking to a friend in a function where there is loud music being played by the orchestra.
Personal factors	Personal factors include your own feelings, habits and ways of thinking. For example, fear, and low confidence may make communication difficult.
Culture	Signs' which have a different meaning in different cultures, such as showing a thumb may mean 'good job' done for some people but may be insulting to others.

Effective communication

Effective communication can happen if we follow the basic principles of professional communication skills. These can be abbreviated as 7 Cs, i.e., Clear, Concise, Concrete, Correct, Coherent, Complete and Courteous. These are further explained in Figure 1.3.

Figure 1.3: 7Cs of Effective Communication

Clear	Concise	Concrete	Correct	Coherent	Complete	Courteous
Be clear about what you want to say	Use simple words and say only what is needed	Use exact words and phrases	Use correct spellings, language and grammar	Your words should make sense and should be related to the main topic	Your message should have all the needed information	Be respectful, friendly and honest

There are different methods of communication, which include **non-verbal**, **verbal** and **visual**.

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic, answer the following question: Why is it important to communicate clearly and effectively?

Activity 1

Role Play on Communication Process

Procedure

- Form groups with three students in each group.
- Act out a conversation between the three people. The situation is that you need to sell some items to an old couple who has come to a shop. One person can act as the salesperson and the other two as an old man and his wife.
- Discuss what you learned from this.

Activity 2

Group discussion and sharing experience on factors affecting perspectives in communication

Procedure

- Form groups with three students in each group.
- Ask each group to select any one of the eight factors (as given in Table 1.1) which act as barriers to communication.

- Discuss how the various factors can affect or become a barrier to good communication with family, friends, in school or at a retail store. Each group member shares their experiences related to one of the eight factors.

Activity 3

7Cs of effective communication

Materials required

Pen/pencil, notebook

Procedure

- Write down examples of the 7Cs of communication in their notebook.
- For each of the 7Cs, a student volunteer to give his/her example of how to communicate well. The other students (with teacher's guidance) say if it is correct or incorrect.

Activity 4

Elements of communication

Material required

Chart paper, colours and pencil

Procedure

Make a chart showing the elements of communication in the communication process cycle.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What is the purpose of communication?
   (a) Inform (tell someone about something)
   (b) Influence (get someone to do something you want)
   (c) Share thoughts, ideas, feelings
   (d) All of the above

2. Which of the following methods are used to receive information from the sender through a letter?
   (a) Listening
   (b) Speaking
   (c) Reading
   (d) Writing

3. How do you receive information on phone?
   (a) Listening
   (b) Speaking
   (c) Reading
   (d) Writing

B. Match the columns

Column A: Communication Barriers	Column B: Examples
1. Language	A. Trying to read a book when somebody else is watching TV in the same room.
2. Emotional	B. In some cultures, wearing shoes and walking inside the kitchen is considered rude and disrespectful.
3. Environmental	C. Talking in Hindi when others know only Tamil.
4. Cultural	D. Parent is not talking to the child.

C. Short answer question

1. Write down the seven factors affecting perspectives in communication.

2. Give an example of the following:
   (a) Clear communication
   (b) Complete communication

What have you learnt?

After completing this session, you will be able to

- identify the elements of communication.
- draw a communication cycle showing all the elements of communication.
- identify the factors affecting our perspectives in communication.

SESSION 2: VERBAL COMMUNICATION

Verbal communication is the sharing of information by using words. It is what most people use as a method of communication. We will learn about non-verbal and visual communication in the next session. Verbal communication is important because if you do not use the right words, you will cause confusion and you will not be able to communicate what you want. The important forms of verbal communication are given in Table 1.2.

Table 1.2: Verbal Communication

Type of Verbal Communication	Examples	
Oral or Spoken Communication: Communication which involves talking	Face-to-face conversation: When you can see the listener. For example, group discussion, talking to family member at home, conversation with public through speeches, etc.	
	Talking on a phone: This is for personal and official communication. Phone conversations should begin with a greeting (Hello), talking and listening to each other. The conversation can end with a 'Thank you' and 'Bye'.	
	Classroom teaching, business discussion and public speeches are other examples of oral communication, where one person talks to many others at once.	
Written Communication: Communication which involves written or typed words.	Writing letters, notes, email, etc.	
	SMS (Short Message Service): These can be sent through a phone to a person or a group.	
	Can be used to send messages to a person or to a group using email to share news, thoughts, documents and files (including photos, videos, music, etc.).	
	Books and newspapers.	

Advantages of verbal communication

Verbal communication is easy and quick. You can say what you want and get a quick response. It is an easier form of communication when you have to exchange ideas. You keep changing your communication as per the other person's reply.

Disadvantages of verbal communication

The most common disadvantage of verbal communication is the cultural differences between the sender and receiver of the information. These differences may be due to the use of different languages, inability to understand the colloquial phrases used by the other individual, and the accent. Since verbal communication depends on words, sometimes the meanings become confusing and difficult to understand if the right words are not used.

Public speaking

Speaking in front of a large group makes most people nervous. You can use the 3Ps (Prepare, Practice, Perform) method to get over your fears, and become a confident and effective speaker. These points are shown in Table 1.3.

Table 1.3: 3Ps of Public Speaking

3Ps of Public Speaking	
Prepare	Think about your topic Think about what your listeners need to know about the topic Think about the best way to make your listeners understand your topic Write what you plan to say
Practice	Practice by yourself first, talk in front of a mirror Talk in front of your family and friends and ask them what they think Speak clearly, loudly and at the right speed (not very fast nor very slow)
Perform	Take a few deep breaths if you are feeling nervous Think about what you have prepared and start speaking confidently

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the video in the e-learning lesson for this topic write down why do you think Tina's directions were not understood? How would you give directions on the phone?

Activity 1

Role play of a phone conversation

Materials required

Notebook, pen

Procedure

- Form groups comprising at least three students in each group.
- Write a script on a phone conversation, based on a scenario given by your teacher. For example, the scenario could be a conversation between a person from the Call Centre and customer talking about the product that is to be delivered at the customer's residence.
- One student acts as a caller and the other as receiver.
- Speak the conversation aloud.
- The third student gives feedback on the effectiveness of the communication, keeping in mind the 7Cs of communication.

Activity 2

Public speaking

Materials required

Notebook, pen

Procedure

- Form groups of three students in each group.
- Within the group, choose a topic for a very short speech.
- Use paragraphs.
- Each person uses the 3Ps (Prepare, Practice and Perform) method and makes a speech to the others in the group.
- Others give feedback—was the person able to communicate properly?
- One student volunteers to give a speech in front of the class.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Choose the correct example of oral communication.
   - (a) Reports
   - (b) Newspapers

(c) Face-to-face conversation

(d) Notes

2. When we communicate verbally, we should use _____.

(a) difficult words

(b) simple words

(c) confusing words

(d) abbreviations

3. Why do we send emails?

(a) To reach on time

(b) To share documents and files

(c) To talk to each other

(d) To meet each other

B. Short answer question

1. Write down the different types of verbal communication. Give an example for each type.

What have you learnt?

After completing this session, you will be able to

- explain the verbal method of communication.
- list the 7Cs of communication.
- speak confidently in public using the 3Ps method.

SESSION 3: NON-VERBAL COMMUNICATION

Non-verbal communication is the message we send to others without using any words as shown in Figure 1.4. We send signals and messages to others, through expressions, gestures and body postures. In this session, you will learn about the non-verbal method of communication, its types and importance. You will learn to use the correct body language, like gestures, eye contact, handshake, etc.

Figure1.4: Non-verbal Communication

Importance of non-verbal communication

In our day-to-day communication, it is observed that most of the communication is done using body movements (face, arms, movements, etc.) and voice control (voice, tone, pauses, etc.).

As we can see in Figure 1.5, maximum communication is non-verbal. We communicate using words, tone of voice and body language as shown in Table 1.4.

Words (Verbal)

Expressions, Movements, Pictures (Non-verbal and Visual)

Voice Control (Non-verbal)
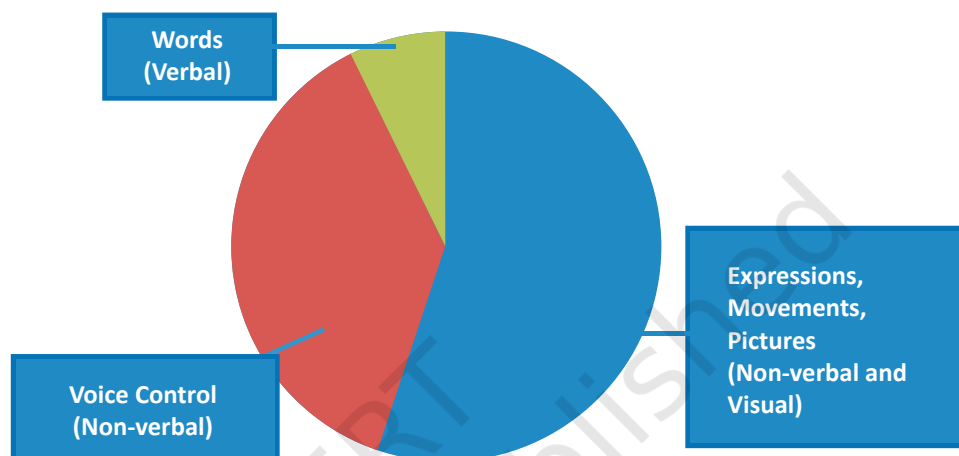
Figure 1.5: Methods of Communication

Table 1.4: Types of Non-verbal Communication

Non-Verbal Communication—Exchanging information without words		
Hand movements (gestures) and body language	• Raising a hand to greet • Pointing your finger in anger	
Expressions	• Smiling to show happiness • Making a sad face when you are upset	

Non-verbal communication makes our message stronger. Using the right gestures while speaking makes our message more effective. Knowing non-verbal communication helps us understand our audience's reaction and adjust our behaviour or communication accordingly.

Using the right gestures and postures helps us to be professional at work. If verbal messages are blocked by noise or distance, etc., we can use hand movements to exchange our message. Placing a finger on the lips to indicate the need for silence and nodding the head up and saying 'yes'.

We communicate non-verbally in many ways. Let us learn about some of these (see Table 1.5).

Table 1.5: Types of Non-verbal Communication

Type	What it implies	How to make use of non-verbal communication effectively?
Facial Expression	A facial expression many a times shows the feelings of a person. For example, when we are happy, we express it through a smile or when we are sad we show a gloomy face.	• Keep your face relaxed • Try to match your expression with what you are saying • If you agree with something, you may nod while listening, which indicates that it has your assent
Posture	Postures are positions of the body. They show our confidence and feelings. For example, straight body posture is seen as confidence. Holding your head may be taken as tiredness.	• Keep your upper body relaxed and, shoulders straight • Sit straight, rest hands and feet in relaxed position • Keep hands by your sides while standing
Gestures or Body Language	Gestures describe movements of parts of the body, especially hands or head, to express an idea or meaning. This includes waving, pointing and using our hands when speaking. For example, raising a hand may mean asking a question. Biting nails show nervousness.	• Avoid pointing at people with your finger • Instead of keeping your hands in pocket while talking, try to keep your hands on the sides • Bend your head a little while talking or listening to show that you are paying attention.

Touch	We communicate a great deal through our touch, such as shaking hands and patting on the back. For example, a firm handshake shows confidence. Sports coaches pat on the back of the players to encourage the players.	• Shake hands firmly. • Avoid other touch gestures, such as stroking your hair, scratching your nose, tugging on your clothes, etc., during formal communication.
Space	The space between two persons while communicating, generally depends on the intimacy or closeness between them.	• Maintain proper space, depending on the relationship, which could be formal or informal or the closeness with the person with whom you are talking.
Eye Contact	Maintaining an eye contact with the person you are talking indicates interest, whereas, looking away can make the other person feel ignored.	• Look at the person who is speaking. • Keep a relaxed, pleasant look. • Break the look every few seconds.
Paralanguage	Paralanguage is the tone of our voice, speed and volume that makes a difference in the meaning of the communication. Speaking too fast may show excitement or nervousness. Speaking too slow may show seriousness, sadness or making a point.	• Use a proper tone and volume while speaking • Maintain a moderate rate (speed) of talking

Visual communication

Another important method of communication is visual communication, which involves sending or understanding messages only through images or pictures. The main advantage of this type of communication is that you do not need to know any particular language for understanding it. It is simple,

easy to understand and remains same across different places. Table 1.6 shows some common types of visual communication.

Table 1.6: Examples of Visual Communication

Visual Communication: Exchanging Information through Images			
Traffic symbol which communicates not to blow horn		Traffic Lights—Red for Stop; Yellow for Wait and Green for Go	
Sign for ladies and gents toilet		Sign showing railway crossing	
Sign for flammable substances		Sign for slippery surface	
Sign used to pause a video or audio file in smartphone or computer		Sign which communicates that the area is a no smoking zone	

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic write down how could Rohit understand something was wrong with Amar? Can you understand how your friends are feeling even when they do not tell you anything?

Activity 1

Role play using non-verbal communication

Materials required

Notebook, pen

Procedure

- Form groups with three students in each group.
- Prepare the script for the role play, based on the scenario given by your teacher.
- Act it out in front of your group.
- One of the group volunteers to act before the whole class.
- Discuss how students used non-verbal communication.

Activity 2

Dos and Don'ts to avoid body language mistakes

Materials required

Notebook, pen

Procedure

- In the same group of three students, as in Activity 1, discuss what things you should do and what you should not do to avoid mistakes in communication.
- Every student should write down a list of these Dos and Don'ts.

Activity 3

Comparing methods of communication

Materials required

Notebook, pen

Procedure

- In the same group of three students, as in Activity 1, discuss the three methods of communication (Verbal, Non-verbal, and Visual).
- Prepare a list of the advantages and disadvantages of each method.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Which of these is a positive (good) facial expression?
    (a) Staring hard
    (b) Nodding while listening
    (c) Wrinkled forehead
    (d) Looking away from the speaker

2. What does an upright (straight) body posture convey/show?
    (a) Shyness
    (b) Fear

(c) Confidence

(d) Intelligence

3. Which of these is not an appropriate non-verbal communication at work?

(a) Putting arm around a coworker's shoulder

(b) Shaking hands firmly

(c) Looking at the speaker with a smile

(d) Standing with an upright posture

4. When you are preparing for a presentation, you should _____.

(a) focus on the objectives of the presentation

(b) practice your speech in front of a mirror or friend

(c) do rehearsals to time your presentation of slides

(d) All of the above

B. Put a × mark against the actions below which are incorrect for demonstrating the use of non-verbal communication

• Laughing during formal communication

• Scratching head

• Smiling when speaking to a friend

• Nodding when you agree with something

• Standing straight

• Yawning while listening

• Sitting straight

• Maintaining eye contact while speaking

• Biting nails

• Firm handshake

• Clenching jaws

• Looking away when someone is speaking to you

• Intense stare

C. Short answer questions

1. Give examples of any four common signs used for visual communication.

What Have You Learnt?

After completing this session, you will be able to

• explain the importance of non-verbal and visual communication.

• identify different types of non-verbal communication.

• use the right non-verbal communication at work.

• avoid common mistakes in non-verbal communication.

SESSION 4: WRITING SKILLS: PARTS OF SPEECH

When we talk or write in English, we use sentences to express ourselves. Sentences are important because if you do not clearly write sentences then, the meaning of the same cannot be understood clearly. A sentence is a group of words that communicates a complete thought (Example: Raju goes to school). A group of words, which does not make complete sense, is known as a phrase (Example: Raju goes). A sentence always begins with a capital letter, and it always ends with a question mark, full stop or exclamation mark. Read out aloud the examples given below.

- Did you work on your project?
- I completed it yesterday.
- That is good!

Using capitals

We know that all sentences begin with capital letters. Do you know at what other points in a sentence we should use capital letters?

It is easy to know what to capitalise if you remember the word 'MINTS'. MINTS is a set of simple rules that help you capitalise words correctly. Each letter in the word MINTS refers to one capitalisation rule as shown in Table 1.7.

Table 1.7: Capitalisation Rules

Alphabet	M	I	N	T	S
What it shows:	Months	The letter	Names	Titles	Starting letter of sentences
Rule	Capitalise the first letter in all the names of months.	Capitalise the letter 'I' when it is used to begin a word.	Capitalise the first letter in the names of people, places and days.	Capitalise the first letter in the titles used before people's name.	Capitalise the first letter in every sentence.
Example	I will go to college in June.	I play tennis with him every day.	This Tuesday, Vidya will be in Rajasthan.	Dr Shah and Mr Patel work together.	The cat ran out of the house.

Punctuation

It is a set of marks, such as the full stop and the comma, which help us separate parts of a sentence and explain its meaning. Like uppercase letters, punctuation is also a very important part of sentences and has some rules. Some common punctuation marks and their use have been given in Table 1.8.

Table 1.8: Punctuation Marks

Punctuation name	Sign	Use	Examples
Full stop	.	Shows the end of a sentence. Also used to show short form of long words. For example, 'doctor' can be shortened to 'Dr' when we use it as a title before a name.	This is a sentence. This is another sentence. Sanjay is a doctor. His patients call him Dr Sanjay.
Comma	,	Sometimes, we use a comma to indicate a pause in the sentence.	After the waiter gave me a menu, I ordered food.
		We can also use a comma to separate items when we are listing out more than two items in a row.	I bought apples, oranges and grapes.
Question mark	?	We use a question mark at the end of a question.	What is your name? How old are you?
Exclamation mark	!	We use an exclamation mark at the end of a word or a sentence to indicate a strong feeling, such as surprise, shock or anger.	What a pleasant surprise! You are late!
Apostrophe	(')	We use an apostrophe followed by an **s** to show that something belongs to someone.	That is Divya's pen. Are these Abdul's books?
		We also use an apostrophe to indicate the shortened form of some words in informal speech.	Let's go. (Instead of Let us go.) He isn't here. (Instead of He is not here.)

Basic parts of speech

There are eight basic parts of speech in the English language. These are noun, pronoun, verb, adjective, adverb, preposition, conjunction and interjection. The part of speech indicates how the word functions in meaning as well as grammatically within the sentence.
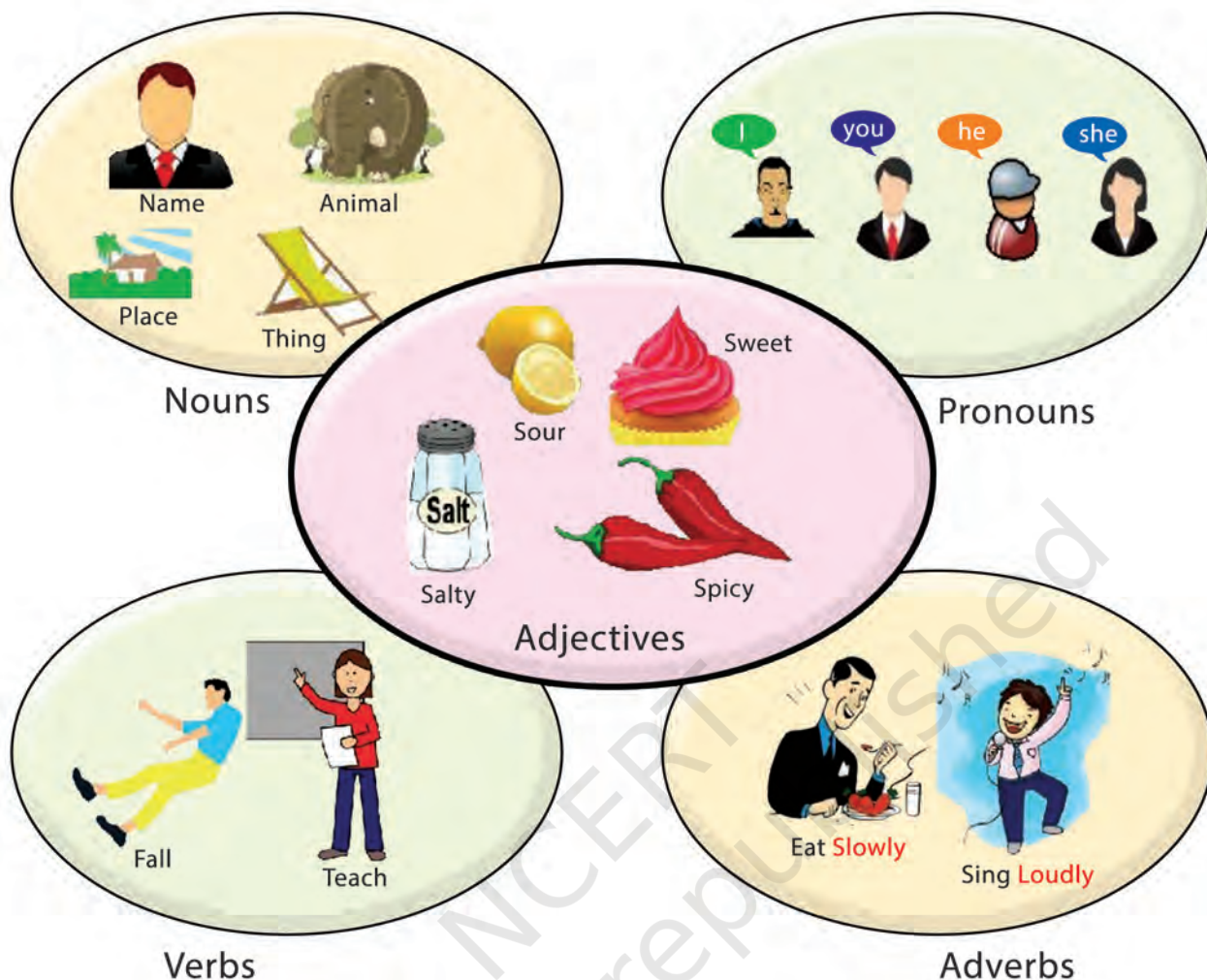
Figure 1.6: Parts of Speech

A noun is a word for a person, place, thing, or idea. Nouns are often used with an article (*the, a, an*), but not always. A pronoun is a word used in place of a noun. A verb expresses action or being. An adjective modifies or describes a noun or pronoun. An adverb modifies or describes a verb, an adjective, or another adverb. A preposition is a word placed before a noun or pronoun to form a phrase modifying another word in the sentence. A conjunction joins words, phrases, or clauses. An interjection is a word used to express emotion. You should be able to use these parts of the speech in making sentences.

The different types of words we use in sentences are called parts of speech. Some examples are nouns,

pronouns, adjectives, verbs and adverbs, as shown in Figure 1.6. Let us read more about them in Table 1.9.

Table 1.9: Parts of Speech

Parts of Speech	What they do	Example sentences	Example words
Noun	Nouns are words that refer to a person, place, thing or idea. These are 'naming words.'	In the sentence, 'Reema wrote a letter.' Both Reema and letter are nouns.	Dog Table India Sanjay
Pronoun	A pronoun is a word used in place of a noun	In the second sentence, "Reema wrote a letter. She is tired." 'She' is used in place of the noun Reema, it is a pronoun.	I They He You
Adjectives	Adjectives are words that describe other words	In the sentence "Reema wrote a long letter." Long is an adjective that describes the noun 'letter'.	Small Blue Sharp Loud
Verbs	Verbs are words that show action	In the sentence: "Reema wrote a letter." Wrote is the verb. It tells what action Reema did.	Run Eat Think Sit
Adverbs	Adverbs are words that add meaning to verbs, adjectives, or other adverbs. They answer the questions—How? How often? When? And Where?	In the sentence "Reema quickly wrote a letter." Quickly is an adverb. It tells us how Reema did the action (writing).	Easily Always Inside Before

Let us now see how these words are used. Read aloud the sentence given below.

Wow! Reema went to the studio and met a famous actor.

We already know that Reema, studio and actor are nouns. Famous is an adjective here because it describes the noun actor and the words went and met are verbs because they describe an action.

What about the remaining words in this sentence wow, to, the, and? What are these words called? We use such supporting words to join the main parts of speech together and to add information to the sentences we make. Let us now look at these supporting words.

Supporting parts of speech types
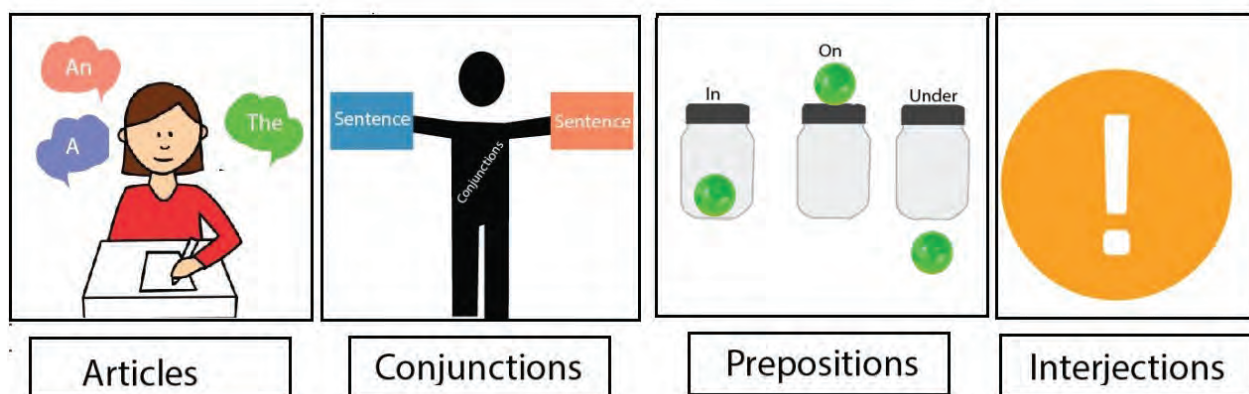
Figure 1.7: Supporting Parts of Speech

Along with the main 'Parts of Speech', there are some more words we need for making a sentence. These are shown in Figure 1.7. Let us learn more about them using Table 1.10.

Table 1.10: Supporting Parts of Speech

Supporting Parts of Speech	Use	Examples
Articles	The words 'a', 'an' and 'the' are known as articles. Articles are generally used before nouns. **An** is used before words with a vowel (a,e,i,o,u) sound **A** is used before nouns with a consonant (all other alphabets) sound **The** is used to refer to specific or particular words	**The** car stopped suddenly because a cat ran in front of it. A book An apple An umbrella The sun
Conjunctions	Conjunctions are words that join two nouns, phrases or sentences. Some common conjunctions are 'and', 'or' and 'but'.	Instead of, Sheela went to the market. I also went to the market. Sheela **and** I went to the market. Instead of, "Do you want oranges? Do you want apples?" "Do you want oranges **or** apples?"
Prepositions	Prepositions connect one word with another to show the relation between them. They usually answer the questions 'where', 'when' and 'how'.	Some common prepositions are 'on', 'at', 'under' and 'in'. The cat is **on** the roof. The shop is **at** the end of the road. Rahul is standing **under** the tree. I live **in** Delhi.

Interjections	These words express strong emotions, such as happiness, surprise, anger or pain. They have an exclamation mark at the end.	Wow! Oh! Oh no! Thanks! Help!

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/ Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic write down what do you think was wrong with Seema's letter?

Activity 1

Identifying parts of speech

Materials required

Notebook, pen

Procedure

Read aloud the paragraph given below.

"*on sunday, i have an appointment to meet Dr. Patel in delhi. my house is near Mr. Patels shop i went to his shop on friday to buy vegetables I bought potatoes onions carrots and a cabbage Mr. Patel is a friendly man have you met him*"

- This paragraph contains examples of the parts of speech you learnt about in this lesson.
- Identify as many of these parts of speech as you can and mark them.
- Write the paragraph with proper punctuation and capitalisation.

Activity 2

Constructing sentences

Materials required

Notebook, pen

Procedure

- Form pairs of students.
- List out five parts of speech that you learnt in the lesson.
- Select one of them and create two simple sentences which use these parts of speech.

- For example, if you have chosen adjectives, create two sentences that have adjectives.

Activity 3

Identify name, place, animal, thing

Materials required

Notepad, pens

Procedure

- Number yourselves from 1 to 5.
- Each member of a group has to say a word that is either a name, place, animal or thing; the fifth member has to do an action.
- Each group gets 30 seconds to think what they are going to say and do.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What is a sentence?
   - (a) A group of ideas that form a complete paragraph
   - (b) A group of words that communicate a complete thought
   - (c) A set of rules that we must follow to write correctly
   - (d) A set of words that contains all the basic punctuation marks

2. Which of these sentences use uppercase letters correctly?
   - (a) I am Hungry.
   - (b) Divya and sunil are reading.
   - (c) The bucket is Full of water.
   - (d) She lives in Delhi.

3. Which of these sentences are punctuated correctly?
   - (a) Where are you going.
   - (b) I have a pen a notebook and a pencil.
   - (c) I am so happy to see you!
   - (d) This is Abdul's house.

4. Underline the noun, pronoun, adjective, verb and adverb in these sentences.
   - (a) Sanjay plays football everyday.
   - (b) Divya gave him new books.
   - (c) I opened the red box carefully.

B. Fill in the blanks

Fill correct nouns and verbs from the box to fill in the blanks given below.

girl, girls, boy, milk, dog, skipping, riding, running, studying, drinking, barking

	a. The _____ is _____.
	b. The _____ is _____.
	c. The _____ is _____.
	d. The _____ are _____.
	e. Raju is _____ _____.
	f. The _____ is _____.

C. Short answer questions

1. Identify the conjunctions and prepositions (Remember, conjunctions join two sentences while prepositions help answer the words 'where', 'when' and 'how'.). Choose the conjunctions and prepositions from the box given below and list in the correct box.

Under, And, In, At, Or, Up

Conjunction	Preposition

What Have You Learnt?

After completing this session, you will be able to

- use capitalisation and punctuation rules for writing sentences.
- identify the basic parts of speech, such as nouns, pronouns, adjectives, verbs and adverbs.
- explain the usage of the parts of speech.
- identify the supporting parts of speech, such as articles, conjunctions, prepositions and interjections.

SESSION 5: WRITING SKILLS: SENTENCES

Parts of a sentence

As you have learnt in English classes, almost all English sentences have a subject and a verb. Some also have an object. A **subject** is the person or thing that does an action. A **verb** describes the action. **Object** is the person or thing that receives the action. For example, read a loud the simple sentence "Divya reads a book". Let us see the different parts of the sentence as given in Figure 1.8.

A subject is the <u>person or thing that performs an action</u>.
The question, "Who or what performed the action?" will help you find the subject.
In this sentence, "Divya" is the subject.

The verb describes the <u>action</u>.
The question, "What is the action?" will help you find the verb.
In this sentence, "reads" is the verb.

The object is the <u>person or thing that receives the action</u>.
The question, "Who or what received the action?" will help you find the object.
In this sentence, "a book" is the object.

Figure 1.8: Parts of a Sentence

Read a loud the example sentences shown in Table 1.11 and understand which is the subject, verb and object.

Table 1.11: Parts of a Sentence

Sentence	Subject	Verb	Object
I ate an apple.	I	ate	an apple.
He cooked dinner.	He	cooked	dinner.
She kicked the football.	She	kicked	the football.
Dia and Sanjay broke the bottle.	Dia and Sanjay	broke	the bottle.

Types of objects

The object in a sentence can be either <u>direct</u> or <u>indirect</u>. Direct objects are the ones directly 'acted on' by the action word (verb). If the verb is 'reads' and we ask "What does Divya read?" The answer is 'book' which is the direct object. A **direct object** answers the question 'what?'.

An **indirect object** answers questions, such as 'to whom' and 'for whom'. For example, in the sentence "**Abdul gave a gift to his mother**." The verb is 'gave'. and there are two objects here— 'gift' and 'mother'.

What did Abdul give? The gift. To whom did Abdul give the gift? To his mother. Here, 'gift' is the direct object and 'his mother' is the indirect object. Some sentences only have direct objects while some have both direct and indirect objects.

Read a loud the examples given in Table 1.12 and practice finding the direct and indirect objects.

Table 1.12: Direct and Indirect Objects

Sentence	Verb	Verb + What?	Verb + By whom/to whom?	Direct object	Indirect object
Sanjay bought vegetables.	bought	Vegetables		vegetables	
Fatima and Sonia played Tennis.	played	Tennis		tennis	
He offered me an orange.	offered	Orange	me	orange	me
The teacher gave us homework.	gave	Homework	us	homework	us

Types of sentences

Active and passive sentences

Read a loud the sentence shown in Figure 1.9. What is the difference between the two sentences?

1. Sanjay broke the glass.
2. The glass was broken by Sanjay.
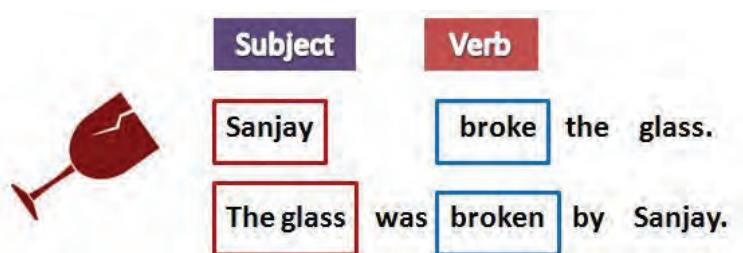
Figure 1.9: Types of Sentences
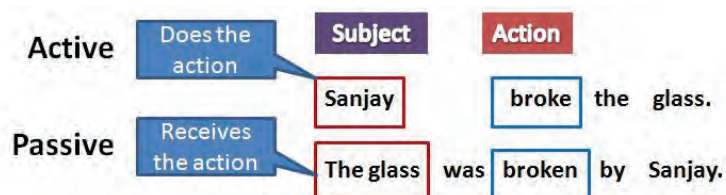
Figure 1.10: Active and Passive Sentences

The action (verb) in both the sentences is breaking of the glass. But the 'subject' of both sentences is different. In the first sentence, the subject (Sanjay) does the action. In the second sentence, the subject (the glass) receives the action.

Read the sentences in Figure 1.10 again.

Sentences where the subject does an action are known to be in the **Active** voice.

Sentences in which the subject receives an action are known to be in the **Passive** voice.

Read aloud some more examples given in Table 1.13.

Table 1.13: Active and Passive Sentences

Active Voice	Passive Voice
She wrote a letter.	A letter was written by her.
He opened the door.	The door was opened by him.
Mohan played the flute.	The flute was played by Mohan.

Types of sentences (according to their purpose)

Read a loud the sentences in Figure 1.11. How do you think they differ from each other?

Figure 1.11: Examples of types of Sentences

Each of these sentences has a different purpose. Also, notice how each sentence in Figure 1.12 ends.
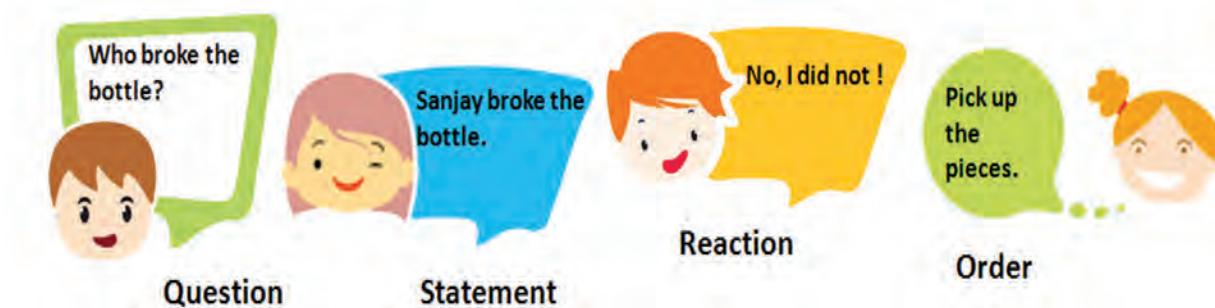
Figure 1.12: Different types of Sentences

Read the examples in Figure 1.12 to practice the different types of sentences.

Table 1.14: Types of Sentences

Types of Sentences			
Statement or Declarative Sentence	**Question or Interrogative Sentence**	**Emotion/Reaction or Exclamatory Sentence**	**Order or Imperative Sentence**
This is the most common type of sentence. It provides information or states a fact. It always ends with a 'full-stop' ('.').	This type of sentence asks a question. It always ends with a question mark ('?').	An exclamatory sentence expresses a strong emotion, such as joy, sadness, fear or wonder. It always ends with an exclamation mark ('!').	These sentences show an order, command, request, or advice. It can end with a full stop or an exclamation mark ('.' or '!').
Read aloud the examples given below			
I go to school. I like eating vegetables.	Did you go to school? Do you like eating vegetables?	I came first in class!	Go to college today. Go eat your vegetables.
It is very cold. This room is unclean.	How is the weather? Could you help clean this room?	Oh, it's so cold!	Wear your sweater. Clean this room.
I completed my project. I exercise everyday	Did you complete your project? Do you exercise everyday?	I completed my project!	Complete your project. Go and exercise today.

Paragraphs

You have learnt about sentences. A group of sentences forms a paragraph. While writing a paragraph, make sure the sentences have a common idea. When you want to write about a different idea, make a new paragraph. For example, if you are writing about your school, the first paragraph can be of sentences about the name, location, size and other such details. In the next paragraph you can use sentences to describe what you like about your school.

I go to Government Higher Secondary School, Balachadi. There are about 100 students and seven teachers in my school. My school is on the main road, very close to the City Railway Station and local hospital. I love going to school and learning new lessons. My school has a playground where I play cricket with my friends at the end of the day. There is a library too and I borrow one book every week. I love my school.

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic write down if you think that Sanjay and Dia were able to make correct sentences?

Activity 1

Making sentences

Materials required
Notebook, pen

Procedure
- Form pairs of students.
- First, write down three sentences that contain direct objects. Then, write down three other sentences that contain both direct and indirect objects.

- Use different colours to mark the different parts of each sentence (Subject, Verb, Object).
- One volunteer shows their list to the class, who correct if needed.

Activity 2

Active and passive voice

Materials required

Notebook, pen

Procedure

- With the same pairs as above, write a paragraph on any topic.
- The paragraph should have at least two sentences in active voice and two sentences in passive voice.
- One volunteer reads out their paragraph to the class.
- The class gives feedback, if correct.

Activity 3

Types of sentences

Materials required

Notebook, pen

Procedure

- With the same pairs as above, make a list of minimum eight sentences. These should have at least two sentences of each type—declarative, interrogative, exclamatory and imperative.
- For each type of sentence, different volunteers read out their sentences to the class. The class gives feedback on the correctness of the sentences.

Check You Process

A. **Multiple choice questions**

   Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

   1. Identify the subject in the sentence, "The children played football."
      (a) The children
      (b) Children played
      (c) Played
      (d) Football

   2. Identify the object in the sentence, "The children played football."
      (a) The children
      (b) Children played
      (c) Played
      (d) Football

3. Which of these sentences has both indirect and direct objects?

    (a) I am watching TV.
    (b) She bought a blue pen.
    (c) The girls played cricket.
    (d) He wrote his sister a letter.

4. Which of these sentences is in passive voice?

    (a) They are watching a movie.
    (b) The clock was repaired by Raju.
    (c) He is sleeping in the room.
    (d) My pet dog bit the postman.

B. Short answer questions

1. Write one sentence of each type—statement, question, exclamatory and order.

2. Which is your favourite festival? Write two paragraphs about your favourite festival. Each paragraph should have a minimum of four sentences. Make sure you follow all the rules about sentences and paragraphs you have learnt.

3. Practice speaking correct sentences with your classmates. Try and find the parts of sentences which you use commonly.

What Have You Learnt?

> **After completing this session, you will be able to**
>
> - identify the different parts of a sentence.
> - differentiate between active and passive voice.
> - identify and compose different types of sentences.

Figure 1.13: Importance of Pronunciation

SESSION 6: PRONUNCIATION BASICS

If we do not say (or pronounce) words correctly, others cannot understand what we are saying as in the example shown in Figure 1.13. In this lesson you will learn about the common 'sounds' used while speaking English. You will learn and practice how to say common words correctly. Pronunciation is the way you say a word, just as spelling is how you write a word.

To communicate well when you speak, you need to know how to pronounce words correctly. Correct pronunciation will help you express

yourself in a clear and confident manner. It will also help others to understand your words easily.

Speaking correctly

Say the following words aloud. Ask your teacher and friends if you pronounced them correctly.

Your	World	Chair	Wear

Also try saying these words aloud

Sun	Son	Sail	Sale	Tail	Tale

What did you notice? Sometimes words, which have similar spellings are pronounced differently. Sometimes words, which have different spellings may be pronounced in the same way. The best way to learn correct pronunciation of words is to listen carefully.

Phonetics

How do we pronounce words? We use **sounds** to speak. Every word is made up of one or more sounds. We put these sounds together to pronounce words. Phonetics is the study of the sounds that we make when we speak.

For example, the word **dog** is made of three sounds put together: d-o-g. Speak the word aloud as shown in Hindi to help you pronounce it correctly ड + ॉ + ग = डॉग

The word **cat** is made of three other sounds: c-a-t. Speak the word aloud as shown in Hindi to help you pronounce it correctly क + ॅ + ट = कैट. The English alphabet has 26 letters, from A to Z. But each of these letters can be pronounced in different ways in different words. We use 26 letters to write in English. But, we use more than 26 sounds when we speak English. This is why a word's spelling does not always match its pronunciation.

Let us take the letter 'a' for example. Read the words below aloud. The alphabet 'a' is pronounced differently in different words as shown in Table 1.15.

Table 1.15: Different sounds of letter 'a'

Words	Pronunciation of the letter 'a'	Pronunciation in Hindi
cat, apple and back	ऐ	कैट, ऐपल, बैक

car, fast and park	आ	कार, फास्ट, पार्क
call, ball and saw	ऑ	कॉल, बॉल, सॉव्

Pay attention to the sound of each word while listening, you will be able to pronounce it clearly.

Types of sounds

We have now seen how the letters of the alphabet are not enough to exactly match the many different sounds we make when we speak. Let us take a closer look at the sounds we use. All English words are made of three basic types of sounds as shown in Table 1.16.

Table 1.16: Different Sounds in English

Vowels	Diphthongs (combination sound of two vowels)	Consonants
The English alphabet has five vowels (a, e, i, o and u) but 12 vowel sounds. This means most vowels can be pronounced in different ways. We make a vowel sound when we read a vowel in a word.	We make a diphthong sound when we combine two vowels. Diphthongs start as one vowel sound and go to another.	A consonant sound is any sound that is neither a vowel nor a diphthong sound.
For example, we pronounce the letter 'i' in the word 'bit' by using a vowel sound. In Hindi it is बिट	For example, the sound 'ou' in the word "house" is a diphthong or a combination. In Hindi, it is हाऊस	For example, we use consonant sounds to say the letters 'p' and 't' in the word Pot. In Hindi is पॉट
Say the word 'bit' aloud and listen to how you are saying the vowel sound.	Say the word 'house' aloud and listen to how you are saying the diphthong.	Say the word 'pot' aloud and listen to how you are saying the consonant sounds.

Some more examples are given in Table 1.17. Say these words aloud (also given in Hindi to assist pronunciation), listen carefully when others say these words and repeat what you hear.

Table 1.17: Examples of Different Sounds

Vowel Sounds			
long 'ee' (ी) sound	short 'i' (ि) sound	short 'u' (ु) sound	long 'oo' (ू) sound
Sleep स्लीप	Slip स्लिप	Book बुक	Boot बुट
Keep कीप	Dip नियर	Put पुट	Group ग्रूप
Feel फील	Fill फिल	Foot फुट	Two टू
Combination vowel (diphthong') sounds			
'ea' sound (ि+ा)	'ae' sound (े)	'oa' sound (ो)	'ou' sound (ा+ु)
Near नियर	Late लेट	Boat बोट	Mouth माउथ
Deer डियर	Cake केक	Loan लोन	Cow काउ
Hear हीयर	Game गेम	Most मोस्ट	Cloud क्लाउड
Consonant sounds			
'p प' sound	't ट' sound	'k क' sound	'l ल' sound
Pen पेन	Train ट्रेन	Book बुक	Look लुक
Report रिपोर्ट	Story स्टोरी	Cold कोल्ड	Place प्लेस
Stop स्टोप	Put पुट	Music म्यूसिक	School स्कूल

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Activity 1

Pronouncing words

Materials required

Notebook, pen

Procedure

- Form groups of four students in each group.
- Make a list of five things in the classroom.
- Identify the vowels, diphthongs and consonants in the listed words.
- Each student speaks each word aloud in the group and the others say if it is the right pronunciation.

Activity 2

Pronouncing words

Materials required

Notebook, pen

Procedure

- Form pairs of students. Your teacher will give you a list of words.
- Practice saying these words aloud with your partner, who says if it is correct or not.
- A volunteer reads out two words for the whole class who will give feedback on the correctness of the pronunciation.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What is phonetics?
   - (a) It is the study of how we write words in English.
   - (b) It is the study of how people understand sentences.
   - (c) It is the study of how many words the English language has.
   - (d) It is the study of the sounds we make when we speak.

2. What are the different types of sounds used in English pronunciation?
   - (a) Vowel sounds
   - (b) Diphthong sounds
   - (c) Consonant sounds
   - (d) All of the above

What Have You Learnt?

After completing this session, you will be able to

- describe what pronunciation is.
- pronounce (speak correctly) simple words used in your conversations.

SESSION 7: GREETINGS AND INTRODUCTIONS

We use certain words called 'greetings' before we start talking to friends, people familiar to us, or people whom we are meeting for the first time. Also we use certain sentences to tell about ourselves or others, to people who do not know us. This is called an Introduction.

Greetings

There are many ways to greet a person. The greeting and reply to a greeting at work is different from the greeting and reply given to a friend. Similarly, there are many ways to say goodbye when you depart.

The greetings change depending upon who we are talking to and even according to the time of the day. Greetings help us start a conversation nicely as shown in Figure 1.14.

Figure 1.14: Greetings and Introductions

Types of greetings

There are two ways of greeting as shown in Figure 1.15. Say the greetings below a loud.

Formal greetings are used if you do not know the person. It is used to greet senior, elderly people or people with whom we have formal relations like teachers or customers. This is used more often in schools, colleges and offices.

Figure 1.15: Formal and Informal Greetings

Say a loud the formal greetings and replies given in Table 1.18.

Table 1.18: Formal Greetings

Greeting	Reply
Good morning everybody!	Good morning, Ma'am!
Good morning, Sir!	Good morning, everyone!
Hello Sir. How are you?	Very well. Thank you! How are you?
How are you Tina?	I'm doing well. How are you, Sir?

Informal greetings are used when you talk to friends, family or a known person.

Say out loud the informal greetings/replies given in Table 1.19.

Table 1.19: Informal Greetings

Greeting	Reply
Hey!	Hello or Hi!
Hey! How are you doing?	Hi! I am doing great!
Hi!	Good to meet you.

We can also greet people according to the time of the day when we meet them. Say out loud the greetings given in Table 1.20.

Table 1.20: Greetings According to Time

Time	Greeting
From early morning to 11.59 am	Good morning
12 pm to about 5 pm (afternoon hours)	Good afternoon
5 pm to midnight	Good evening (We usually do not greet people by saying Good night even if it is night. We say Good night at the end of conversation.)

Introducing yourself and others

When you are meeting someone for the first time, or if others want to know about you, you need to 'Introduce' yourself. You can do this by telling your name and some general information like about your hometown, your job or subjects as a student, your interests, etc. When introducing yourself, remember to look at the other person and smile. Some examples are shown here in Figure 1.16.

Figure 1.16: Introducing Yourself

We can introduce someone to others by telling their name, what they do, how we know them, or even by describing something interesting about them. One example is shown here in Figure 1.17.

Figure 1.17: Introducing Others

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

Have you come across such a situation? Based on the initial videos in the e-learning lesson for this topic, write down how do you think we start talking to friends and neighbours? How can we start a conversation politely?

Activity 1

Formal and informal greetings

Materials required

Notebook, pen

Procedure

- Form pairs of students.
- Each pair should write about two conversations—one with formal greetings and one with informal greetings and act it out.
- One volunteer pair acts this out in front of the class.
- The class says if the formal and informal greetings have been used correctly.

Activity 2

Introducing someone

Materials required

Notebook, pen

Procedure

- Use same pairs of students as above.
- Each pair should write a conversation to introduce someone to their friends and family and act it out.
- One volunteer pair demonstrates it for the class.
- The class says if the introductions have been made correctly.

Activity 3

Greetings

Materials required

Notebook, pen

Procedure

- Imagine that you are at home. The doorbell rings and you open the door. Write down.

    - What would you say when you see your uncle standing at the door?
    - What would you say when you see your friend standing at the door?

- One volunteer acts it out in front of the class. The class (with teacher) discusses

    - What is the difference in the way you greet your friends and teachers?
    - Which method will be used in the following situations: (a) While talking to teacher in the classroom, and (b) While talking to your friends in the playground.
    - What are the different phrases used when greeting friends?
    - What are the phrases used when greeting elders, teachers, colleagues at work or in office?

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. You say 'Good Morning' when it is _____.

   (a) 11 am   (b) 9 am
   (c) 8 am   (d) All (a), (b) and (c)

2. You may say 'Hi' when you meet _____.

   (a) your teacher in class   (b) a senior in the office
   (c) your Principal   (d) your friends at a shop

3. You say 'Good Afternoon' when it is _____.

   (a) 10 am   (b) 11.59 am
   (c) 6 pm   (d) 1 pm

4. You say 'Good Evening' when it is _____.

   (a) 11 am   (b) 9 am
   (c) 2 pm   (d) 7 pm

B. Short answer questions

2. Write two to three lines you would use to introduce yourself.

After completing this session, you will be able to

- greet people formally and informally.
- introduce yourself to other people.
- introduce other people to your friends.

SESSION 8: TALKING ABOUT SELF

You may need to talk about yourself on many occasions especially when you meet new people. You may also need to fill forms with information about yourself. In this session you will learn how to describe (or 'introduce') yourself and write about yourself.

Talking about yourself

When you meet someone for the first time, they may want to know more about you. You will need to 'introduce' yourself by telling them about yourself as shown in Figure 1.18.

You usually start by telling your name. Then you can talk about other things, such as what you do, your age, where you live, or even about the things or activities that you like or dislike. For all these sentences, you will use nouns and verbs.

A **noun** is a 'naming' word that is used for a person, place, thing, or idea. Some **examples of nouns** are **Ali, Delhi, football** and **music**.

A **verb** is a 'doing' word that tells us what the noun does. Some examples of verbs are **play, like, eat** and **write**. Note that some verbs with an 'ing' ending can also act as nouns. Swimming is an example. We can talk about likes and dislikes using nouns as well as verbs that end with 'ing'. For example, cycling and swimming.

Table 1.21 represents talking about oneself. Read a loud.

Figure 1.18: Talking About Self

Table 1.21: Talking About Yourself

Name	I am Harish Sethi.	My name is Anu.	I am Lucy Peter.	My name is Ali.
What they do	I am in high school.	I am a student.	I play cricket.	I practice karate.
Age	I am 15 years old.	I am 16 and a half years old.	I am nine.	I will be 17 soon.
Hometown	I stay in Agra.	I live in Mumbai.	I am from Goa.	I'm from Patna.
Likes	I like playing chess.	I like swimming.	I like carpentry.	I like music.
Dislikes	I dislike summers.	I do not like dolls.	I dislike loud noise.	I do not like playing football.
Strengths	I can write stories very well.	I am a good public speaker.	I can solve crossword puzzles quickly.	I am a good team player.
Weaknesses	I leave tasks incomplete .	I get angry easily.	I cannot manage my time properly.	I am nervous to speak in front of a large group.

Filling a form

Sometimes, instead of talking, you will have to write about yourself in a form. A form is a typed or printed page with blank spaces for information.

Each form is different, so you should read it properly before filling. Write neatly taking care to use the correct spellings. A form usually has the following fields for personal information as shown in Table 1.22.

Table 1.22: Some fields a form

Name	Here you enter your name. Sometimes you may need to write the first, middle (if any) and surname.
Date of birth	This is the date on which you were born. It is usually written as the day, followed by the month, followed by the year in numerals.
Address	This is the postal address which includes your house number and the details of the street, area and the city.
PIN code	This is a group of numbers used by the post office to identify a region. It is an important part of an address.
Signature (or Sign)	This is your name or initials written by hand, in a specific way (which is difficult for anyone else to copy).

Harish Sethi was born on 5 December 1999. He lives in Agra, in a house named Sukh Nivas. His house number is 13 in Raja Nagar. His postal code is 282001. Harish filled a form asking for personal information like this.

First Name	Harish
Last Name	Sethi
Date of Birth	5 December 1999 (or 05-12-1999)
Address	Sukh Nivas, No. 13, Raja Nagar, Agra
Pin Code	282001

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic write down how would you talk about yourself?

Activity 1

Introducing yourself and filling forms

Materials required

Notebook, pen

Procedure

- Form pairs of students.
- Ask the students to introduce themselves to their partner, giving the details necessary to fill a form like above. Their partner should fill in the form with their details in his or her notebook.
- When he/she has finished, the other partner to read the form carefully and add his/her signature if the details are correct. Repeat this process for the other partner as well.

Activity 2

Talk about yourself

Materials required

Notebook, pen

Procedure

- Form groups with four students in each group.
- Ask the students to take turns and one by one, introduce themselves to the others in the group. Use the steps and expressions they learnt in the lesson. The students have to present their likes and dislikes as well! Each person has one minute to talk about himself/herself.
- When one person talks, the others should correct and guide him/her.
- One of the group volunteers to speak in front of the class, who will give feedback on what is right and what is wrong.

1. Maintain a diary and show your progress to your teacher.
2. In the next two days:
   - Introduce yourself to the new people you meet.
   - Tell your friends about your likes and dislikes.
3. In the next 14 days:
   - Ask your family members to show you some forms they have filled in
   - Think and create a signature for yourself
5. In the next one month:
   - Create a simple form
   - Give copies to your friends and ask them to fill in the form
   - Guide them if they do not know how to fill it.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Use the following words to complete the form given below.

   football and swimming, seven-years-old, Hassan, Yasmin, in Bengaluru.

   (a) My first name is _____.
   (b) My surname is _____.
   (c) I am _____.
   (d) I live _____.
   (e) I like _____.

2. A postal code is _____.

   (a) a group of numbers or letters used to identify a government building.
   (b) a code used to indicate the door number of a house.
   (c) a group of numbers or letters used by the post office to identify a region.
   (d) a code used to identify different post offices.

> **After completing this session, you will be able to**
>
> - answer questions that others ask about you.
> - talk about your likes and dislikes with your friends.
> - fill out a form with some basic personal details.

SESSION 9: ASKING QUESTIONS I

Are you sometimes scared of asking too many questions as shown in Figure 1.19. What happens if you do not ask questions at the right time? Why do we need to ask questions?

In this session you will learn about the importance of asking questions and how to get information by asking the correct questions.

Figure 1.19: Asking Questions

Need for asking questions

A question is a request for information as shown in Figure 1.20. It could be any type of information, such as an answer to a question in the textbook, information about a person or a place or about how to do a task.
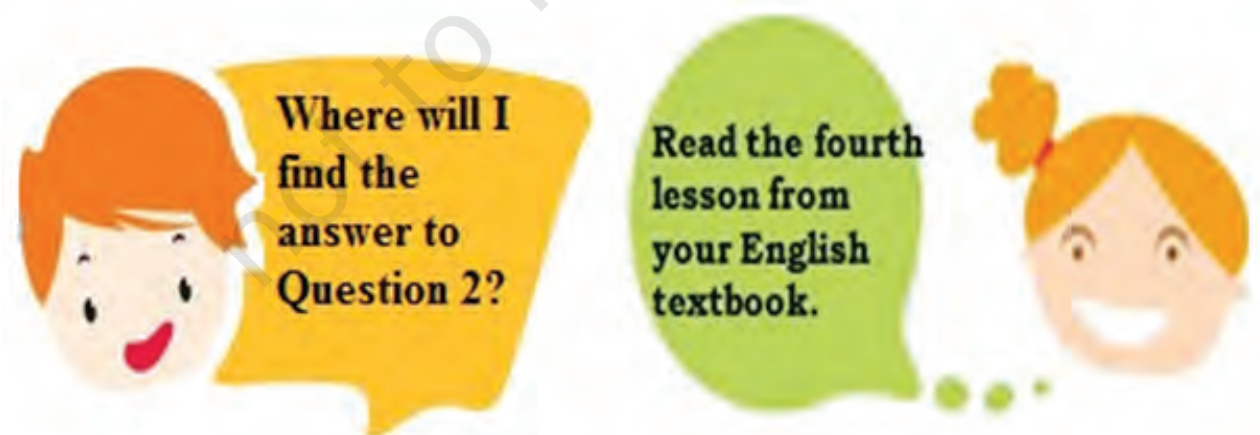
Figure 1.20: Example of Asking Questions

COMMUNICATION SKILLS

Asking questions helps us to

- gain new knowledge, get information,
- make sure that what we know is correct,
- avoid doubts, confusion, misunderstanding, and
- start talking to people by asking about them and their ideas.

How to make sure we have complete information?

If you do not have information about how to reach a place, you will not be able to reach it. If you do not know how to do some work, you will not be able to complete it, unless you ask questions and get information. Asking all the correct questions at the right time is also important.

You can follow the simple method of **'5W+1H'** shown in Table 1.23 to make sure that you have all the information you will need for a particular work. Read out the examples aloud.

Table 1.23: 5W+1H Method for Asking Questions

5W+1H Method for Asking Questions		
Question Word	**Usage**	**Example**
Who	'Who' is used to ask about people	Who is the new student in the class?
Where	'Where' is used to ask about a place	Where does she live?
When	'When' is used to ask about time	When did she join school?
What	'What' is used to ask about a thing, an idea or an action	What is her favourite subject?
Why	'Why' is used to find the reason	Why is she not talking to anyone in the class?
How	'How' is used to find the method	How can I help her to make friends?

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/ Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic, write down if you think Rahul was able to ask correct questions?

Activity 1

Framing questions

Materials required

Notebook, pen

Procedure

- Form groups of four students in each group.
- Tell the students about a situation. Use the 5W+1H method to make a list of questions that should be asked to get complete information.
- One volunteer group reads out the list to the class. The rest of the students give feedback if these were right questions.

Activity 2

Framing questions

Materials required

Notebook, pen

Procedure

- Form pairs of students.
- Your teacher will tell you about a situation for which you have to make plans.
- Make a list of questions you will ask. Also, think and write why you need to ask that question. (What is the purpose of the question?).
- Read out your list to your partner and discuss if each other's questions were right.

Activity 3

Let us guess!

Procedure

- Divide the class into five groups.
- Each group discusses and decides on one famous personality.
- All groups will take turns to ask other group questions and guess the person.
- Every group gets to ask one question each to other groups. In total, each group can ask three questions. If they are not able to guess within the first three questions, extend the number of questions to five per group.
- If you run out of questions, tell each team to give the teams a CLUE.
- For example, for Mahatma Gandhi, the clue can be:
  - He is called the Father of the Nation
  - He was a lawyer from Gujarat
  - His picture is on Indian rupee notes
- After spending about five minutes preparing in their groups, give the teacher examples of the kind of questions prepared.

- The questions have to be indirect and anyone from the other group can answer.
- The team that guesses the other team's famous person first, wins!

Discussion

- Were you able to frame questions?
- Were you able to identify the right kind of question?

Practice work

Whenever you are starting with a new work think of all the information you would need. Use the 5W+1H method to make a list of questions to get all this information. If you keep practicing on you will be able to frame questions.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Raju is the class monitor. He wants to know why Ramesh is coming late every day. Which of the following is a question that Raju can ask Ramesh?

   (a) Do you come on time?
   (b) Are you late?
   (c) Why are you late every day?
   (d) Will it not be easier to complete your work if you come on time?

2. If you have not understood a task given to you, which question should you ask?

   (a) Where are the reports of this task?
   (b) Can you repeat the instructions for this task?
   (c) Can you give me an example of this task?
   (d) Why are you doing this task?

3. Sheela does not have time so she decides to delay a task. Which question should he ask before ignoring the task?

   (a) What is this task?
   (b) When does this task need to be completed?
   (c) Is this task important?
   (d) No need to ask any question.

4. Renuka is joining a new school. Which of the following questions will help her become comfortable with her new classmates?

   (a) How long have you been studying here?
   (b) Would you like to share my lunch?
   (c) What do you all do in your free time?
   (d) All the options are correct.

B. Short answer questions

   1.   Re-arrange the words to form questions.

a) she/like/sing?/Does/to	b) waiting/What/are/you/for?
c) play/like/football?/Do/ you/to	d) fighting?/they/are/Why
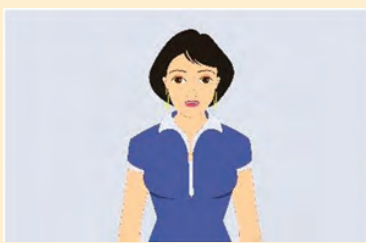
What Have You Learnt?

After completing this session, you will be able to
   • ask questions to get correct information from other people.
   • ask the questions according to a situation.

SESSION 10: ASKING QUESTIONS II

A question is a sentence, phrase, or word that either asks for information or is used to test someone's knowledge. We always use a question mark (?) at the end of a question. In our day-to-day interactions with others, we often have to ask and answer questions to get information. Asking the correct questions can help us get the information we want as shown in Figure 1.21.

Figure 1.21: Questions and Information

Types of questions

There are two basic types of questions: close-ended and open-ended.

Figure 1.22: Open-ended Question

Figure 1.23: Close-ended Question

Questions that can be answered with a "yes" or a "no" are called **close-ended question**. That is because the answer options are limited or closed. For example, when we ask "Do you have a TV at home?", the answer could be either "Yes" or "No" (see Figure 1.22).

Sometimes, when we ask a question, we expect an answer with more details. For example in Figure 1.23 when we ask "What do you like to watch on TV?", the answer could be "I like to watch movies on TV." These are called **open-ended questions** because their answer options are not limited or closed. In this case, the person could have also said sports, news, or anything else.

Framing (or forming) questions

Framing close-ended questions

We can form close-ended questions by adding helping verbs (called auxiliary verbs) like **Be, Do** and **Have**. These convey additional information, such as time and mood. Besides these, there are other auxiliary verbs (called modal verbs), such as **Can, Shall, May, Should, Could** which show possibility or necessity. One method of framing close-ended questions is to take a sentence without the above words and place such words before the subject.

For example, the sentence "I like it" can be changed into a close-ended question by adding the word "do" before the subject "I". This creates the close-ended question: "**Do** I like it?"

Read aloud the other examples are shown in Table 1.24.

Table 1.24: Close-ended Questions

Sentence	Close-ended questions after adding helping verbs
They talk on the phone every day.	**Do** they talk on the phone every day?
You share your lunch with your friends.	**Could** you share your lunch with your friends?

Please Note: The helping verb changes based on the subject, but the main verb remains unchanged. For example, in the sentences and the questions below, the main verb (cook) remains unchanged, but the auxiliary verb (do) changes based on the subject. Read aloud the other examples are shown here in Table 1.25.

Table 1.25: Close-ended Questions with Helping Verbs

Sentence	Close-ended Questions after adding helping verbs
I cook dinner.	Do I cook dinner?
She can cook dinner.	Can she cook dinner?
They cook dinner.	Do they cook dinner?

Framing close-ended questions

In some cases, **we exchange the positions of the subject and the verb** to create a close-ended question. We can follow a similar method for sentences that already have auxiliary verbs. Read aloud the other examples given in Table 1.26.

Table 1.26: Close-ended Questions (Subject/Verb exchanged)

Sentence	Close-ended questions after exchanging positions of the subject and the verb
He is there.	Is he there?
They were cleaning their room.	Were they cleaning their room?
You can help me.	Can you help me?

Framing open-ended questions: Using question words

Some questions are called open-ended because their answers are not limited or closed. They have to be answered with more information than just a "yes" or a "no". We can form open-ended questions by using question words, such as **What, Why, Who, How, When** and **Where**. Read aloud the other examples are shown here in **Table 1.27**. Notice how these questions CANNOT be answered with a "yes" or a "no".

Table 1.27: Open-ended Questions with Question Words

Open-ended questions	Answer sentence
What did you do?	I went to the park.
Why did you go there?	I went to meet my friend.
How did you go?	I cycled.

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Activity 1

Pair-work: Framing open-ended and closed-ended questions

Materials required

Notebook, pen

Procedure

- Form pairs of students. Each pair writes five open-ended and five closed-ended questions along with the answers for all 10 questions.
- When all pairs have completed the activity, one volunteer pair reads out their questions and answers to the whole class.
- The class gives its feedback on whether the questions are framed correctly or not.

Activity 2

Group-practice: Framing questions

Materials required

Notebook, pen

Procedure

- Form groups of four students each.
- Write a conversation between four people, with at least six questions (including closed- and open-ended questions). Act it out aloud.
- One group volunteers to act it in front of the class. The other students say if the questions were framed correctly.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What are close-ended questions?
   - (a) Questions that can have any answer
   - (b) Questions that do not have answers
   - (c) Questions with yes/no answers
   - (d) Questions that have many answers

2. Which of these are open-ended questions?

(a) Where do you live?
(b) Are you hungry?
(c) How do you feel?
(d) Did you meet him?

3. Which of these are question words?

(a) What
(b) Want
(c) Which
(d) How

4. Which of these is the correct way to convert the sentence "You are studying" into a question?

(a) You are studying?
(b) Studying you are?
(c) Are you studying?
(d) Studying are you?

B. Short answer questions

Make a note of five questions your friends asked you. How many were open-ended questions? Make a list of five close-ended questions you asked other people in one day.

What Have You Learnt?

After completing this session, you will be able to

- ask simple questions to solve your doubts.
- identify close-ended and open-ended questions.
- use the correct question words to ask open-ended and close-ended questions.

GLOSSARY

Auxiliary verbs: *verbs used along with a main verb to convey additional information, such as time and mood. There are three main auxiliary verbs 'Be, Do and Have'*

Coherent: *making sense, related to the main topic*

Communication: *sharing of information between two or more people to reach a common understanding*

Concise: *using simple words and saying only what is needed, not extra*

Concrete: *using exact words and facts*

Courteous: *showing respect, polite, friendly*

Exclamation: *a sudden cry or remark expressing surprise, emotion, or pain*

Instead: *as an alternative, another option*

Modal Verbs: *these are other auxiliary verbs, such as 'Can, May and Should'*

Modify: *make partial or minor changes to something*

Paralanguage: *the other parts of spoken language (besides words) tone, rate, loudness, etc.*

Posture: *the position of the body when standing, sitting or working*

Precise words: *exact, most suitable words*

Similar: *looking same in appearance, character, or quantity, but not identical*

Specific words: *special, correct name*

Studio: *a place where films are made or produced*

Title: *a name that describes someone's position or job*

FURTHER READINGS

Session 1: Introduction to Communication
- https://bit.ly/2yrCswn
- https://bit.ly/2GPRn8A

Session 4: Writing Skills 1 – Parts Of Speech
- http://www.thepunctuationguide.com/top-ten.html
- https://bit.ly/2ImnVUS

Session 5: Writing Skills2 – Sentences
- https://bit.ly/2EepS38

Session 6: Pronunciation Basics
- https://bit.ly/1HkctUu

Session 7: Greetings and Introductions
- https://www.thoughtco.com/greeting-people-in-english-1212039
- https://reallifeglobal.com/23-different-ways-greet-someone-english/

Session 8: Talking About Self
- https://bit.ly/2H3UjML

Session 9: Asking QuestionsI
- http://www.englishlearnsite.com/grammar/wh-questions/
- https://bit.ly/2IklgeA

Self-Management Skills

INTRODUCTION

Self-management, which is also referred to as 'self-control' or 'self-regulation', is the ability to regulate one's emotions, thoughts, and behaviour effectively in different situations. This includes motivating oneself, and setting and working towards personal and academic goals. Students with strong self-management skills are able to do different activities effectively, including managing their timelines, focusing on their tasks, cooperating with others in school and at home and perform better in their studies. It helps in future studies, work and life.

SESSION 1: INTRODUCTION TO SELF-MANAGEMENT

After writing an exam, have you ever felt that you should have studied more? Do you think that you could manage your hobbies, interests, and studies better if you could manage your time well?

Self-management involves understanding yourself, understanding what your interests and abilities are,

17974CH02

Figure 2.1: Who Am I?

having a positive attitude and grooming yourself in order to develop self-confidence (See Figure 2.1).

Self-management can also help in:

- developing good habits
- overcoming bad habits
- reaching your goals
- overcoming challenges and difficulties

Being able to manage yourself helps you to avoid stress and provides opportunities to get involved in fun activities.

Self-management skills include the following:

Fig. 2.2: Self-awareness

Self-awareness
Knowing yourself as an individual – your values, likes, dislikes, strengths and weaknesses

Fig. 2.3: Self-control

Self-control
Ability to control your behaviour, discipline, etc.

Fig. 2.4: Self-confidence

Self-confidence
Believing in yourself that you can do any task that is given to you and not scared of taking risks

Fig. 2.5: Problem Solving

Problem solving
Understanding a problem and finding a solution using step-by-step method
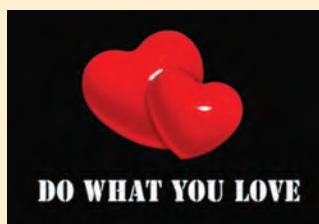
Fig. 2.6: Self-motivation

Self-motivation
Doing tasks on your own without any external motivation

Fig. 2.7: Hygiene and grooming

Personal hygiene and grooming
Keeping oneself clean, healthy and smart

Fig. 2.8: Positive Thinking

Positive thinking
Expressing certainty or affirmation even in tough situations

Fig. 2.9: Teamwork

Team work
Working together with people to accomplish shared goals.

Time management
Achieving tasks on time and according the plan

Fig. 2.10: Time management

Goal setting
Planning concrete goals to be accomplished within a set timeframe.

Fig. 2.11: Goal setting

Practical Exercises

The practical activities will be facilitated by the teacher and necessary feedback will be provided by the teachers to the students.

Activity 1

Self-management skills

Materials required
Student textbooks, pen

Procedure
Read the following paragraph. Write in class. One volunteer can read what he/she wrote and other students can discuss.

"Manish got admission to a new school. His clothes were not clean, shoes were not polished and laces were not tied. He did not smile at anyone and looked sad. He did not look confident. What are the qualities of self-management that you think are missing in Manish?"

Activity 2

How self-aware are you?

Materials required
Student textbooks, pen

Procedure
- Form pairs of students who are friends or know each other well.
- The students to rate each other on the scale of 'Good', 'OK' or 'Bad', on self-management skills given in the table below.

My name		My friend's name ....
Self-management skill	My rating of my ability	My friend's rating of my ability

Confident (Self-confidence)		
Positive and Cheerful (Positive Thinking)		
Neat and Clean (Personal Hygiene and Grooming)		
On-time (Punctuality)		

- Rate your partner on the same rating scale and skills.
- Compare what you thought of yourself and what your partner thought of you. If it is the same, than it means that you are aware of your skills. If the ratings are different, you can discuss why the partner thought about you differently.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Which of the following is not a self-management skill?
   (a) Problem solving
   (b) Bargaining
   (c) Understanding self
   (d) Confidence building

2. Grooming is a term associated with
   (a) time management
   (b) problem solving
   (c) neat and clean appearance
   (d) self-management

B. Short answer questions

1. Write a short note on the factors influencing self-management.

2. List any 05 self-management skills.

3. Draw an outline of your right hand and label each finger with different factors that influence you in managing yourself.

What have you learnt?

> **After completing this session, you will be able to**
> - describe self-management in your own words.
> - describe the importance of self-management.
> - list the various self-management skills.

SESSION 2: STRENGTH AND WEAKNESS ANALYSIS

Have you ever wondered why you get good marks in one subject and not so good in another subject? Knowing what you do well or not so well, will help you in converting your weaknesses into strengths and strengths into an exceptional performance. The strength and weakness analysis helps you in this process. Strength and weakness analysis begins with knowing yourself first.
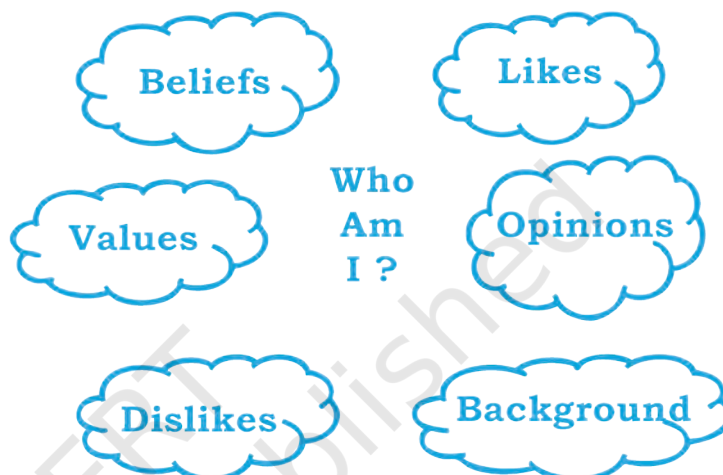
Figure 2.12: Knowing Yourself

Knowing yourself

It means understanding who you are, what you like, what you do not like, what are your beliefs, what are your opinions, what is your background, what you do well and what you do not do well? It is important to know who you are, because only then can you measure your strengths and weaknesses (See Figure 2.12).

Strength and weakness analysis

Being 'self-aware' or understanding 'Who am I?' means looking outside our usual characteristics, such as our name, qualifications, and the relationship we have with others. It actually means knowing our inner strengths, hidden talents, skills and even weaknesses. Let us look at what could be our strengths and weaknesses.

Examples of strength
- I am good at understanding other peoples emotion.
- I am confident in dealing with strangers while keeping myself safe from any harm.
- I help my parents in household chores.
- I play cricket very well.

Examples of weakness
- I am unable to resist junk food when my friends suggest.
- I would like to learn more about computers.

Strengths are what we do well and are good at. Everyone has some strengths.

Weaknesses, also known as 'areas of improvement' are what we do not do well and are not good at. Everyone has some weaknesses too.

Fig. 2.13: Strength and Weakness

By understanding ourselves we can
- know what we can and cannot do

→

Based on that information, we can
- plan what and how we can improve ourselves

→

By improving we will
- feel confident about ourselves

Fig. 2.14: Identifying Strengths and Weaknesses

Identifying strengths

- Take time off to think about what you do well
- Think of anything that you are always good at
- Think about what others appreciate about you

Identifying weaknesses

- Point out the areas where you struggle and what you find difficult to do
- Look at the feedback you receive from others
- Be open to feedback and accept your weaknesses without feeling small about it. Look at it as an area of improvement.

Here are few questions that can help you find your strengths and weaknesses (Figure 2.15).
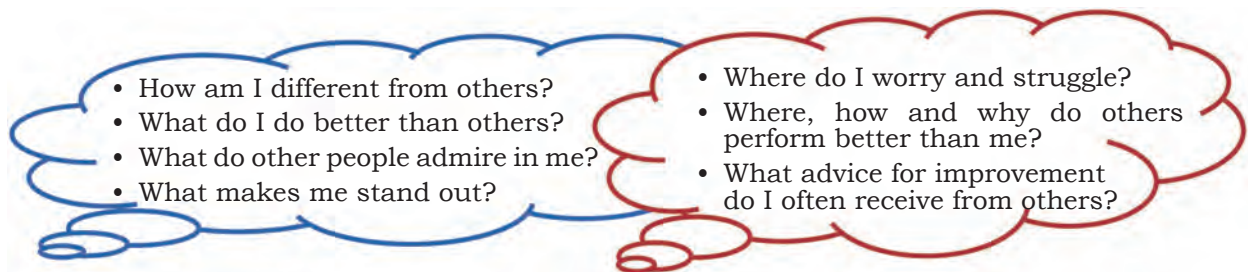
Figure 2.15: Finding Strength and Weakness

Difference between interests and abilities

Interests are the things that we enjoy doing. Interests may include:

- Activities you like to do at school and in your free time that make you happy.
- Activities you are curious about or would do even if no one asked you to do it.
- Activities you want to learn or would like to do in the future.

Ability, on the other hand, is an acquired or natural capacity that enables an individual to perform a particular job or task with considerable proficiency. Sometimes interests may not match abilities. In those cases, you can either improve your abilities or follow some other path. For example, you may like cricket (*interest*), but you may not be able to play due to the necessary power or skill (ability) required to play the game. In that case, it is not necessary to try to become a cricketer!

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

After watching the initial video in the e-learning lesson, write down the points that you will use from the video to understand your own strengths and weaknesses.

Activity 1

Aim in life

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

- Form pairs of students. Make a list of tasks/activities you can do well.
- Write your main aim in life.
- Share your notes with your partner and discuss your personal characteristics.
- Fill in the table given below

List what you believe as a person by starting the sentences with 'I am' (I am a sensitive person).	
List all you can do well by starting the sentences with 'I can' (I can identify safety aspects and seek support when witnessing or experiencing violence and abuse).	
List what you plan to do by starting the sentences with 'I will' (I will train myself in yoga).	
State your aim in life. Start the sentence with 'My aim is' (My aim is to become an accomplished sportsperson).	

Activity 2

Interests and abilities

Materials required

Student textbooks, pen, worksheets

Procedure

Each student has to complete two worksheets, each containing a list of statements. First worksheet is for interests and the second is for abilities. Each student has to be real and honest when marking the statements in the two worksheets if he/she is not real and honest, they will get incorrect results about their own interests and abilities.

WORKSHEET 1: WHAT ARE MY INTERESTS?

S.No.	Group 1: Interests	Yes	No
1.	I enjoy working with a group of people.		
2.	I love to make new friends.		
3.	I feel comfortable around new people.		
4.	I like listening to people who have thoughts different than mine.		
5.	I like to report the problems in my locality to the Municipality/Panchayat.		
6.	I like responding to people enthusiastically.		
7.	I like organising events.		
8.	I want to resolve conflicts between people.		

S.No.	Group 2: Interests	Yes	No
1.	I like working with tools.		
2.	I enjoy making things with my own hands.		
3.	I like to move around a lot.		
4.	I like to use gestures and non-verbal cues when I communicate.		
5.	I like to learn by doing.		
6.	I like playing sports everyday.		
7.	I like assembling parts of instruments or machine using instructions.		

S.No.	**Group 3: Interests**	Yes	No
1.	I enjoy learning about numbers.		
2.	I like to do experiments at home.		
3.	I want my things to be organised.		
4.	I like to see a pattern or logic in things that happen around me.		
5.	I like to save out of my pocket money.		
6.	I enjoy collecting coins/stamps.		
7.	I like to make and follow a plan.		

S.No.	**Group 4: Interests**	Yes	No
1.	I like giving directions to people.		
2.	I want to learn new concepts and express my ideas visually.		
3.	I enjoy creating new product designs.		
4.	I prefer pictures over text in a magazine.		
5.	I enjoy drawing.		
6.	I like solving jigsaw/visual puzzles.		
7.	I like redecorating the room for fun.		
8.	I enjoy working with different colours.		

WORKSHEET 2: WHAT ARE MY ABILITIES?

S.No.	**Group 1: Abilities**	Yes	No
1.	I can resolve problems between friends.		

S.No.		Yes	No
2.	People seek my advice.		
3.	I am good at organising events.		
4.	People call me a good listener.		
5.	I make new friends easily.		
6.	I can work with a group of people.		

S.No.	Group 2: Abilities	Yes	No
1.	I am good at athletics/sports.		
2.	I am physically active.		
3.	I learn better by doing.		
4.	I have a sense of balance and coordination.		
5.	I can assemble parts of an instrument or machine by following instructions.		
6.	I work well with tools.		
7.	I use a lot of gestures and non-verbal cues to communicate.		
8.	I can make things using my hands.		
9.	I move around a lot.		

S.No.	Group 3: Abilities	Yes	No
1.	I plan my activities for the day.		
2.	I keep my things in an order.		
3.	I see logic in things that happen around me.		
4.	I save some percentage of my pocket money.		
5.	I conduct a variety of experiments at home.		
6.	I can quickly calculate the total of a list.		
7.	I follow a step-by-step approach to solve problems.		

S. No.	**Group 4: Abilities**	Yes	No
1.	I am good at solving jigsaw/visual puzzles.		
2.	I can give clear and precise directions.		
3.	I draw well.		
4.	I look at pictures in the magazine than reading the text.		
5.	I learn concepts and express my ideas visually.		
6.	I can arrange a room for various occasions.		
7.	I can make models.		

Check Your Progress

Fill in the table given below which can help you to prepare an action plan to overcome your weakness. Identify and list the activities that you would like to undertake to improve upon your weaknesses and continue to build your strengths.

Strengths	Weaknesses	Action plan to overcome your weaknesses
For example, *I can speak many languages*	For example, *I do not understand computers*	Improve on computer skills by attending extra classes after school.

What have you learnt?

After completing this session, you will be able to

- list your own strengths and weaknesses.
- list your interests.
- list your abilities.

SESSION 3: SELF-CONFIDENCE

Self-confidence is a sense of trusting own's abilities and self. If you are an intelligent, hardworking and

talented person, but lack confidence, and avoid taking initiative, then it may be difficult for others to recognise your talent. Self-confidence can be developed through changes in attitude and practice.

Niraj had difficulty in speaking English. He, therefore, avoided talking to his classmates. He believed that he can learn English by joining English speaking classes and in few days he was able to speak english fluently.

Shalini, was preparing for her final board exams. She feared that she will not get good marks in English because of her poor memory. This made her nervous before the exam and she actually got poor marks in the exam.

Figure 2.16: Examples of confidence and lack of confidence

Self-confidence is a quality we build when we believe in our strength to succeed in anything we do in life. People who are confident believe that they can do anything given to them in any situation.

Qualities of self-confident people

Self-belief
Thomas Edison made thousands of prototypes of the incandescent light bulb, before he could finally invent the bulb. Inspite of struggling with repeated failures, his resilience and belief in self gave the world one of the most amazing product, i.e., bulb.

Hard Work
Dipa Karmakar, despite having a flat foot at the age of six worked hard to become the first Indian female gymnast ever to compete in the Olympics.

Positive Attitude
Positive attitude is nothing but focusing on the positives even in the time of adversity. For example, the situation of losing a game can be perceived as losing something or as an opportunity to review the game strategies and improve to win in the future.

Commitment
Mahatma Gandhi, the leader of Indian Independence Movement, was highly committed to the cause of making India free from the British Raj. He employed non-violent civil disobedience to get India independence.

Building self-confidence

The three steps to building self-confidence are as follows:

Step 1: Appreciate achievements & accept failures	For example, celebrate the achievements when the team wins a competition. Articulate learning when the team loses a competition.
Step 2: Have a goal and take steps towards it	For example, if you have won bronze at an event, set the goal to win gold medal next time and take action for it.
Step 3: Always look at the good side and be happy	For example, if you have lost a match, celebrate the efforts of those team members who performed well. Talk to people who are confident and try to gain.

Figure 2.17: Building Confidence

Given below are some of the factors that may decrease self-confidence.

(a) When we think we cannot do a particular work.

(b) When we keep thinking of our past mistakes and feel bad about it, instead of learning from them.

(c) When we expect to be successful at the first attempt itself and do not try again.

(d) When we are surrounded by people who have a negative attitude, which is reflected in their speech.

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/ Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video 'Becoming Self-confident' in the

e-learning lesson. Discuss how Ranjith developed confidence before his interview day.

Activity 1

Role-Play: Building self-confidence

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

- Form groups of four students in each group. Choose from one of the below given situations.
- List the steps you would take to handle the situation confidently.
- One group volunteers to present in front of the class.
- Discuss and ensure that the three steps above are followed.

Choose from one of the below given situations.

- You have to deliver a speech on health, hygiene and cleanliness. As this is the first time you may be doing this, how will you build your confidence?
- Two of your classmates often get into fight and damage school tables. As you are the class representative, you need to talk to them to make them realise their mistake and learn how to improve upon them. What qualities and abilities do you need to do this?
- You have to a model of the school with your team in five days. How will you build confidence in your team?

Activity 2

Building confidence through positive words

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

Make a list of feel-good sentences that you will say to yourself every day when you wake up in the morning and before you go to bed. For example, you can think of

(a) something that you are really proud of,

(b) a compliment you have received from someone that day or the previous day,

(c) a learning that you had after reflecting upon your failure.

Activity 3

Practice activity: Self reflection on becoming more confident and goal driven

Materials required

Pen/Pencil, note pad or sheets of paper

Procedure

Write down three qualities about yourself, your goals in life and your plan to achieve them.

My qualities	My goals	My plans
For example, I have the ability to run 100 metres race.	For example, I want to become a nationally recognised sportsperson.	For example, I will start my day by exercising and eating a balanced diet. I will regularly run in a stadium under the guidance of coach.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What steps should one take to build confidence?
   (a) Set goals in life
   (b) Appreciate oneself for all the achievements
   (c) Always think positively
   (d) Talk to people who are confident

2. Which of the following is a quality of a self-confident person?
   (a) Patient
   (b) Compassionate
   (c) Committed
   (d) Passionate

B. Short answer question

1. What are the factors that affect self-confidence?

What have you learnt?

After completing this session, you will be able to

- describe the meaning of self-confidence.
- list the qualities of self-confident people.
- identify ways in which you can build your self-confidence.
- list factors that influence self-confidence.

SESSION 4: POSITIVE THINKING

What would happen if ants, one of the smallest creatures of nature, thought that they are so small that they cannot do anything? They would probably be extinct by now. But ants have never considered being small as a weakness, instead they work really hard to get through each day. An ant can lift up to 20 times its own body weight. A positive attitude to life can help us succeed like ants. Similarly, if an individual has a positive attitude towards life and its challenges, he/she can overcome them and grow positively in life and work.

Figure 2.18: Positive Thinking

Positive thinking and its importance

A person's attitude can be considered either 'positive' or 'negative'. Positive thinking requires a person to look at the good in things, observe, understand and patiently work towards improving them rather than worrying and/or looking for the bad in things.

Positive thinking leads to good results for you like

- overcoming challenges,
- making you do well or making you an energetic individual,
- helping you get better at work, and
- making you and people around you happy.

How to keep your thinking positive?

There are few simple steps to cultivate a positive attitude in life. Let us understand this with the help of the abbreviation 'SMILE'.

Examples of negative thinking

- I did not get enough marks to choose the Science stream. My life is ruined.
- My team lost the match because of me.

Examples of positive thinking

- I did not get enough marks to choose the Science stream, but that's not the end of my life. I can consider options in other streams.
- My team lost the match today, but we can see how we can do better next time.

Figure 2.19: SMILE model

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/ Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic, write down what went wrong in the video?

Activity 1

Story telling:

Procedure

- Form a circle around the teacher.
- Discuss a story about
- Positive attitude
- How does the story connect to positive attitude? What role does attitude play in our lives? If you would have been in similar situations what would have been your attitude/ approach towards the situation? What kind of approach will help you come out of this situation?

Activity 2

Follow the Class rules

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

- Form groups of three students.
- Each group prepares a role-play on the situation given below. Two people in each group act out the situation and the third member observe and makes notes on questions, such as what went well in terms of dealing with the situation positively? What could have been better?
- A volunteer group presents in front of the whole class which would be followed by discussion.

Situation

You are the monitor of your class. Some of your classmates do not follow the class rules. You have to talk to them and ask them to follow the rules.

Activity 3

Using positive words:

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

- Use same groups as above. Look at the below statements and make them positive by using positive words/thinking, such as 'I can' instead of 'I cannot'
  - (a) I cannot give speech in school assembly.
  - (b) I made a lot of errors in my computer work.
  - (c) I did not like the school project.
- Once written in notebook, discuss within your group.

Activity 4

Self-reflection on how you will follow positive attitude practices

Materials required

Pen/pencil

Procedure

- Make a list of things you will do from today to start thinking positively in your daily life.

Start your day in a positive way	
Make time to relax	
Imagine the best in any situation	
Learn to take criticism in a healthy way	
Express gratitude	

Activity 5

Home activity: Helping others/working for the community

Social work makes you feel good and happy and helps you to be positive. Think of a situation that you see every day in your neighbourhood

- Dirty streets or
- A hungry cow or
- A big hole on the road

Go home and do something to help in that situation. Write what you did in your notebook and submit it to your teacher in the next period for review.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What is the best way to start our day positively?

    (a) Think about all that can go wrong.
    (b) Think about the difficult test you will face during the day.
    (c) Think about all your accomplishment so far and feel good about it.
    (d) Think about the traffic on the road and feel stressed.

2. Rahul gets feedback on his project work from his class teacher. Which of these options demonstrates positive attitude in this situation?

    (a) Rahul ignores the feedback.
    (b) Rahul takes the feedback but does not use it.
    (c) Rahul tells others that the teacher is wrong.
    (d) Rahul learns from the feedback and makes his project work better.

3. What can you do to get rid of negative thoughts or feelings?

    (a) Meditate to calm down and feel positive.
    (b) Ignore them and move on in life.
    (c) Act based on the negative thoughts or feelings.
    (d) Talk to a friend and share all your negative feelings.‘

What have you learnt?

After completing this session, you will be able to

- define positive attitude.
- list the benefits of having a positive attitude.
- identify ways in which you can develop a positive attitude.

SESSION 5: PERSONAL HYGIENE

It is the habit or practice of keeping ourselves clean. Cleanliness helps us to maintain our health and well-being. Being healthy allows you to be regular at school, college or work.
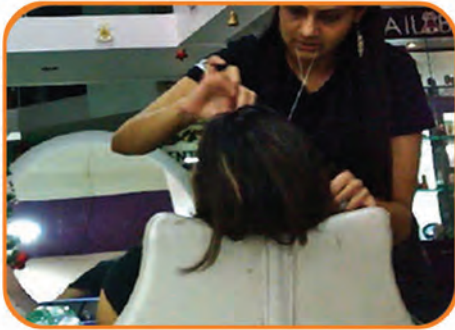
Rashmi is a beautician and takes special care that she does not have a bad breath, because she works closely with customers.

Prashant is a receptionist at a four-star hotel. He makes sure his clothes are always clean with no sweat or food stains.

Figure 2.20: Examples of Personal Hygiene

Personal hygiene is important because, it helps us
- stay healthy.
- create a good image of ourselves.
- avoid feeling ashamed in public due to our bad breadth, body odour, etc.

Three steps to personal hygiene

CARE
- Keep your hair free of dandruff
- Rub oil/cream to take care of your skin
- Brush your teeth daily
- Change your toothbrush as soon as it deshapes
- Cut your nails every week

WASH
- Wash your hands frequently
- Take bath every day
- Wash your clothes regularly
- Wash your hair at least every second day
- Wash your feet often

AVOID
- Blow your nose/cough into a handkerchief to avoid spreading germs
- Keep your feet dry and change your socks every day

Essential steps of hand washing
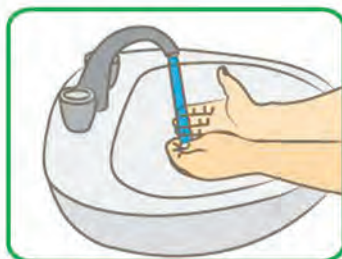
Wet hands with water
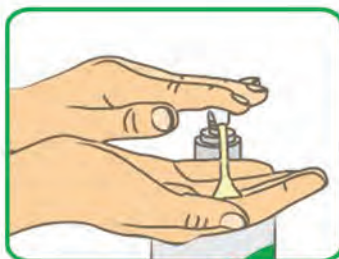
Apply enough soap to cover all hand surfaces

Rub hands palm to palm

Right palm over left dorsum and vice versa

Palm to palm with fingers interlaced

Back of fingers to opposing palms with fingers interlocked

Rotational rubbing of left thumb clasped in right palm and vice versa

Rub inner surface of palms

Rub inner surface using the thumb

Rinse hands thoroughly with water

Use towel to dry
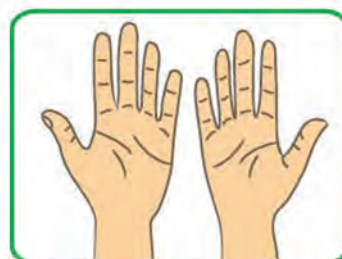
Your hands are now clean.

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities given ahead.

Initial thinking activity

After watching the initial video 'Importance of Personal Hygiene' in the e-learning lesson, write down your advice to a restaurant staff on CARE, WASH and AVOID.

Activity 1

Using personal hygiene steps

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

- Form groups of three. Each group prepares a role-play on any one of the following situations.
- Within each group, two members act out the situation and the third member observes and makes notes on what went well, what could have been better and what parts of CARE, WASH and AVOID were displayed in the role-play.

Situations

(a) One of your classmates often gets left out from activities and games in school. He/she has body odour (bad smell) issues, so other classmates avoid including him/her in classroom activities and games. You have decided to help by talking to him/her about personal hygiene and grooming.

(b) You have recently gone through the lesson on personal hygiene and sanitation and have understood its importance. You have a neighbour who often throws garbage in public areas and you decide to teach him/her about the importance of health, hygiene and sanitation.

(c) You are the class monitor. One of your classmates is very sick and sometimes ends up spreading the germs in the class. You have to talk to your classmate about his/her personal hygiene and cleanliness practices.

Activity 2

Personal Hygiene Practices

Materials required

Pen/pencil, writing/notepad

Procedure

- Answer the statements with a 'Yes' or a 'No'. If your answer is 'Yes', you are already following personal hygiene standards. If your answer is 'No', then you have to start following the personal hygiene standard immediately.
- Write your plan to improve for all the 'No' answers in the space provided.

Statements	Yes/No	My plan for improvement
I wash my hands with soap every time I use the toilet.		
I do not bite my nails. They are always clean and clipped.		
I cover my mouth every time I cough or sneeze in public places.		
I regularly take bath to avoid body odour.		
I do not have dandruff or dirt in my hair.		
I never wear dirty clothes.		
My feet are smooth and not dry.		
My hair is clean, non-greasy/not oily and it smells fresh all the time.		

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Do you think people living in hill stations can skip taking a bath for many days?
   (a) No, irrespective of the climate, one should take a bath regularly.
   (b) Yes, not taking bath for many days is acceptable for people staying in cold climate.
   (c) Yes, if they wipe themselves with a wet cloth, then it is fine.
   (d) None of the above

2. Radha wants to grow her hair and she applies a lot of hair oil. She does not wash her hair for days and sometimes it smells bad too. What would be your suggestion to her?
   (a) She can leave the oil in her hair, after all it helps her hair to grow.
   (b) She can leave it on at night and wash her hair every day before leaving home.
   (c) She should not apply the oil at all.
   (d) She can apply the oil and pour a little water on her hair before leaving home to reduce the smell.

B. Short answer question

1. List three things you will do for personal grooming in each of CARE, WASH and AVOID to keep clean.

What have you learnt?

> **After completing this session, you will be able to**
>
> - list the benefits of maintaining personal hygiene.
> - list the habits you need to avoid to maintain a good hygiene.
> - demonstrate the techniques to wash your hands effectively.

Session 6: Grooming

Grooming and its Importance

Dressing is the action of putting on clothes. Grooming is the process of making yourself look neat, tidy and smart. The way you dress, and groom can either send the message that you are confident, smart and sincere or possess opposite qualities.

Dressing and grooming are important because they help us

- look smart
- feel confident about ourselves
- make a good impression of ourselves

Examples of good dressing and grooming

- Clean clothes
- Clean face, short hair for boys and neatly tied hair for girls
- Minimum or no flashy things in your dress to school

Guidelines for dressing and grooming

CLOTHES

- Clothes should be clean, neat, and ironed
- Shoes should be clean and polished
- Change socks everyday and always wear clean socks
- Keep accessories like belts, jewellery, etc., simple
- In certain jobs display of bodily tatoos and piercing is not accepted

HAIR

- Hair should be washed regularly to keep clean
- Simple hair styles and well combed hair gives a smart look

FACE

- Face looks clean if you shave regularly
- Moustache should be neatly trimmed
- Teeth should be kept clean, without any stains
- Brush the teeth twice a day to maintain dental hygiene
- Avoid eating *Paan or* chewing betle.

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video 'A dressing disaster' in the e-learning lesson for this topic, write down what went wrong in the video.

Activity 1

Role-play: Using dressing and grooming standards

Materials required

Pen/pencil, notepad or sheets of paper

Procedure

- Form groups of three.
- Each group prepares a role-play on any one of the following situations. Within each group, two members act out the situation and the third member observes and makes notes on what went well, what could be better and the dressing and grooming displayed in the role-play.

Situations

(a) You have to participate in an interschool debate competition. Discuss with your friend what all will you do to create a good first impression.

(b) You have noticed that your classmate does not wear appropriate clothes to school. You have to educate him about the dressing and grooming standards.

Activity 2

Self-reflection on dressing and grooming well

Materials required

Pen/pencil, notebook

Procedure

- Answer the statements with a 'Yes' or a 'No'. If your answer is 'Yes', you are already following the desired norms of grooming. If your answer is 'No', then you have to start working on the various aspects of personal grooming.

Statements	Yes/No	My plan for improvement
Wear clothes that fit you		
Make sure your clothes are neat and ironed		
Hair is clean and always combed		

Teeth are always clean and brushed every day		
Wear shoes that are clean and polished		

- Write your plan to improve for the 'No' answers in space provided.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Dressing and grooming are important because they help us to look_____.
   - (a) smart
   - (b) untidy
   - (c) shabby
   - (d) All of the above

2. The following image is an example of _____ shirt.
   - (a) informal
   - (b) formal
   - (c) Both of the above
   - (d) None of the above

3. The following image is an example of _____ T-shirt.
   - (a) informal
   - (b) formal
   - (c) Both of the above
   - (d) None of the above

What have you learnt?

After completing this session, you will be able to

- list the benefits of personal grooming.

Glossary

Ability: *a special skill or talent that a person has*

Attitude: *a way of thinking or feeling about something*

Beautician: *a person whose job is to give people beauty treatment*

Compassion: *feeling the other person's pain*

Compliment: *a polite way of saying something good about someone*

Express: *to show*

Goal Setting: *a way of finding out what we want to achieve in life*

Gratitude: *being grateful towards something or someone*

Grooming: *the things that you do to make your appearance clean and neat*

Guidelines: *a general rule, principle or piece of advice*

Imagine: *forming a picture of or about something in your mind*

Impression: *an idea, a feeling or an opinion about something or someone*

Presentable: *clean, smart and decent enough to be seen in public*

Qualities: *a distinctive attribute or characteristic possessed by someone or something*

Receptionist: *a person who is employed to receive and help the guests in a hotel*

Unit 3

Information and Communication Technology Skills

INTRODUCTION

ICT stands for Information and Communication Technology. It includes a diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information. ICT includes computers, the Internet, broadcasting technologies (radio and television) and telephony. In digital technology, translation of information is into binary format (zero or one) where each bit is a representative of two distinct amplitudes, whereas in analog technology, information is translated into electric pulses of varying amplitude. UNESCO defines informatics as the science dealing with the design, realisation, evaluation, use, and maintenance of information processing systems, including hardware, software, organisational and human aspects, and the industrial, commercial, governmental and political implications of these.

People use technology every day at home and at workplace. ICT tools enable anytime, anywhere access to information and resources. The various ICT tools that are used include computers we use at work, smartphones

Figure 3.1: ICT technology

through which we talk, Internet for getting information, communicating with others through e-mail and social networks, watching movies and TV shows, etc. For example, to find a job you may have to search the Internet for job openings, create a resume on a computer, use e-mail to send the resume, send messages through your phone to communicate appear for telephonic interview and get your offer letter through e-mail.

ICT skills help us to communicate, run our business and stay connected with our family and friends. Hence, every person needs to acquire ICT skills and build them to stay updated with the latest software and applications (apps).

SESSION 1: INTRODUCTION TO ICT

Information can be recorded or stored in many ways. It can be hand-written on paper, typed using a typewriter or a computer and so on. When information is stored and recorded on electronic devices, it takes on a 'digital' form. ICT devices are tablet, smartphones and laptops' as shown in Figures 3.1 and 3.2. As a student you should be able to identify and understand the functions

Figure 3.2: ICT Devices

of the main components of a typical information and/ or communication system as well as the functions

of various computer peripherals. It will help you to effectively utilise the knowledge and skills of ICT. The basic ICT skills that you need are

- knowing how to operate computers; and
- knowing how to browse the Internet for collecting, storing and disseminating information.

ICT at Workplace

ICT has become part of our workplace in all sectors of economy, right from carrying out money transactions through the online banking system to development of textbooks or research papers in educational institutions.

At workplace, we use different computer software and applications to complete tasks like making documents, calculations, tables, graphs, etc. We can also use applications to do every day work, like buying things, booking train or bus tickets, Internet banking and making online payments. Modern ICT employs a variety of media forms, which includes text, graphics, animation, audio and video, etc. It also involves creating, curating, managing images and documents; gathering and processing data and presenting them; working with audio and video tools to create media rich communications, etc. Therefore, employees are expected to possess a sound knowledge of all these to work independently on various software and computers.

ICT at Home

These days most of the people uses television for entertainment and phones for calling up other people. New devices, such as smartphones with an Internet connection are now being used to stay connected with family and friends on a regular basis through social media networks, such as Facebook, Instagram and Twitter. We use computers and mobile phones for talking to each other, sending and receiving information, watching videos and news, listening to music and playing games. You can visit the following sites and know about the ICT activities which are being carried out in various sectors.

Sector	ICT used for	Website
Agriculture	Various activities related to research, development and training in agriculture and allied fields	http://dare.nic.in/ https://bit.ly/2H3DJfU
Retail	Training programmes in the retail sector	http://rasci.in/
Beauty and Wellness	Training programmes in beauty and wellness sector	http://www.bwssc.in/
Banking and Finance	Training programmes in banking, financial services and insurance sector	http://www.bfsissc.com/
Apparel	Training programmes in Apparel sector	http://sscamh.com/indexHome.php
Logistics	Training programmes in Logistics sector	http://lsc-india.com/
Health Care	Training programmes in Health Care sector	http://www.healthcare-ssc.in

The above-mentioned sites are suggestive. You may visit various other sites related to the sectors for more information about the activities being organised in the sector and understand the benefits of ICT in searching, collecting and using information for different purposes.

Practical Exercises

These activities will be run under guidance and with feedback from vocational teacher.

Activity 1

Past, present and future use of ICT

Materials required

Diagrams or models of the basic computer components, actual samples or illustrations of peripheral devices, chart sheets sketch pens and pencils

Procedure

- Form groups of five students each
- Each group will divide the chart paper into three columns.
- Each group will choose one topic related to the past present and future use of ICT

Activity 2

Application of ICT

Materials required

Poster and newspapers cutting, pens, etc.

Procedure

- Form groups of three students
- Discuss the role and importance of ICT in personal life and in workplace.
- List at least five points in each area.
- Prepare a poster depicting five ways each in which ICT is modifying:
    (a) personal life
    (b) workplace
- Make a mention of an activity using ICT (e.g., train reservations), the technology (e.g., online ticket booking through railway website), how ICT has affected the activity (e.g., getting train tickets sitting at home) and how the activity was conducted before the technology (e.g., queuing at railway stations)
- You can use newspaper cuttings, or other material that you can get from outside.

Check Your Progress

A. State whether the following statements are True or False

1. The full form of ICT is Information Commuting Technology.

2. Live sports and news can only be shown using ICT.

B. Short answer questions

1. Give any two uses of ICT at home.

2. What are the emerging skills in ICT?

3. What are the key skills one should possess to use ICT?

What have you learnt?

After completing this session, you will be able to

- identify the importance of information and communication technology.
- list the various tools that are being used for ICT.
- demonstrate the knowledge of application of ICT in our daily life

SESSION 2: ICT TOOLS: SMARTPHONES AND TABLETS — I

Smartphones and tablets are becoming more and more important as most people carry them around and

use them in daily activities like sending e-mails and messages, sharing pictures, etc. Without these, most people cannot work with others. The spreading of an idea, or of news occurring somewhere in the world is now possible through social sites on the internet. As long as one person is able to connect to the internet and express their view about a situation or simply about an idea, then the information that individual will want to share, will get out into the world. Smartphones are now being used to stay connected with social media and exchange information.

Smartphones

Figure 3.3: A smartphone

Mobile phones are ICT tools for talking to people but smartphones are more advanced. With a simple mobile phone you can only make phone calls and receive calls. With a smartphone (Figure 3.3), you can make calls and do things that you normally do using a computer, such as browsing the web, sending e-mails, making video calls, playing games, listening to music, watching movies and much more.

Smartphones are also called mobile phones as you can use them anywhere—at home, in office or on the road (Figure 3.4). They do not need a telephone line. They use wireless (mobile) networks to make calls and to connect to the Internet. Some of the popular operating systems for smartphones are Android OS, Apple iOS and Windows Mobile.

Tablets

For some activities, such as reading a book for a longtime, the screen of a mobile may be too small. For

Figure 3.4: A tablet

such activities, we can use a tablet (Figure 3.4). A tablet is a mini computer with input, output and processing functions that are all combined into one 'touchscreen', where you can do various tasks just by touching its screen. It is bigger than a smartphone and you can perform all the functions that one can perform on a computer or a smartphone.

TV and Radio

TV and radio are being used as an ICT tool since a long time. Radio is used to broadcast audio while TV is used to broadcast audio-visual information to many people. Radio and TV are used for both entertainment and to learn new things. You can hear news, songs, stories, speeches, cricket commentary, etc., on radio, while TV is used for watching movies, news, weather forecast, songs, cartoons and educational lectures.

Applications or apps

How does a smartphone perform so many functions? It does so with the help of software applications (Apps). On the screen of a Smartphone or Tablet, you see a lot of small pictures (or 'icons'). If you touch these, they start programs or functions required for watching movies, playing games, using camera, etc.

Figure 3.5: App. Stores

Apps are software programs (a set of instructions, or a set of modules or procedures, that allow for a certain type of computer operation) that perform different functions. Some of the apps are already present on the phone or tablet. These are called "default" apps. Besides, there are hundreds of other apps that can be purchased and downloaded or downloaded free of cost from online stores. There are several online stores, including Google Play Store for Android and Apple App Store for Apple (Figure 3.5).
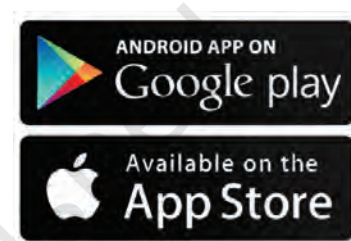
Commonly found applications

Some of the default apps installed on all smartphones/mobiles are given in Table 3.1.

Table 3.1: Some of the default Apps installed on smartphones and simple mobile phones

Phone: This app is used to make calls. It also stores the names and phone numbers of people you know.	**Camera:** Connects to the camera in the phone and takes photos and videos.
Calendar: Shows a calendar and you can also enter appointments, reminders, etc.	**Mail:** An e-mail app to send and receive e-mails using your E-mail account in Gmail, Yahoo, Outlook, etc.

	Photos: This helps you store all your photos and video and arrange them into albums.		**Clock:** This shows the time and also sets alarm, timers, etc.
	Maps: This app helps you find directions to where you want to go. It uses GPS (Global Positioning System)		**Messages:** This is for sending and receiving SMS messages.
	Web Browser: This allows you to open a browser to search and visit different websites.		**Music:** This allows you to play and listen to songs and music.
	Google Play store: This is the Google store from where you can get apps like Facebook, WhatsApp, etc. Some apps are free while some are paid ones.		**Apple Store:** As Android smartphones have a Google Playstore, similarly, Apple devices have an Apple store where you can download and use various apps.

Difference between a smartphone and a tablet are given in Table 3.2.

Table 3.2: Smartphone vs. Tablet

	Smartphone	Tablet
Main usage	As a phone but with some additional features, such as camera. The majority of smartphones run on Apple iOS or Google Android but others use Windows Phone or BlackBerry OS.	As a wireless portable personal computer with a touchscreen interface which makes it more useful than the notebook computer. Some tablets use Android OS, others useApple iOS or Windows OS.
Screen size	Screen size is smaller	Has a bigger screen
Photos and videos	Watching a movie or making changes to a picture is difficult	Watching videos and making changes to a photo is better and easier due to bigger screen size
Battery life	You need to charge phones more often	Usually have a longer battery life
Storage	Comes with different storage capacities, but phones with high storage are costly	Usually have higher storage capacity, i.e., they can store more pics, videos and Apps

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Activity

Getting started with mobile devices

Materials required

Pen/pencil, notebook, smartphone, tablet

Procedure

- Form groups depending on the number of smartphones and Tablet available. For example, if you have 2 smartphones and 3 tablet, form 5 groups.
- The group studies the basic features of smartphone or a tablet. Note down the names of the Apps or icons you see in the smartphone/tablet. Compare the differences between tablet and smartphones.

Check Your Progress

A. Short answer questions

1. Identify the following symbols and write the name in the blank space.

a.		
b.		
c.		
d.		
e.		
f.		

2. Write any two differences between a smartphone and a tablet.

What have you learnt?

> **After completing this session, you will be able to**
> - demonstrate the knowledge of the uses of ICT tools, such as smartphones and tablet.
> - differentiate between smartphones and tablets.

SESSION 3: ICT TOOLS: SMARTPHONES AND TABLETS — II

To operate your smartphone, you need to know about basic controls and functions and their uses.

Mobile Device Layout

Some of the basic controls you see on mobile device are as follows: (Figure 3.6):

Figure 3.6: Basic Controls of a Mobile

- **Power button:** This is used to start and shut down a mobile device.
- **Screen:** A screen on which we perform functions by touching with our fingers.
- **Back button:** You use the Back Button to go back to the previous screen in an application.
- **Microphone:** This is present at the bottom of the mobile and we speak into the microphone when we talk to someone.
- **Menu button:** This is used to show the options available in a particular app. This may not be present in all mobile devices.

- **Home button:** This brings you back to the Home Screen from wherever you are in your mobile, whether you are on another page or using an App.
- **Earpiece:** This helps you to listen to voice calls.
- **Volume button:** This helps you to increase or reduce the sound of your mobile.

Basic features of a mobile device

Some of the basic features present in all mobile devices are as given in Table 3.3.

Table 3.3: Basic Features of a Mobile Device

✳	**Bluetooth:** This is a short-range wireless technology which helps you connect with other devices that are within 30 feet of where you are. Once connected, you can send messages and songs.
🔋	**Chargeable Battery:** This is a portable power pack which can be recharged. It allows you to use the device anywhere.
📶	**Wi-Fi:** This is a wireless network technology that helps you connect to the local area network. This is used to connect to the Internet and work with e-mails, social media and anything to do which requires internet.
📱	**Touch Screen:** The output display of a mobile device is a touch screen. This helps you to run apps and type anything into the mobile by simply touching different areas of the screen with your finger.
📷	**Camera:** Smartphones and Tablet have a front and back camera to capture pictures and videos.
🕐	**Clock:** Every mobile device has a clock which can be set according to the time in your country.
📊	**Cellular network connectivity:** This provides the network through which you can make calls.
📍	**Global Positioning System:** It is a navigation (direction finding) system that helps you to navigate, find direction and maps to specific locations.

Home screen of a mobile device

The home screen is the first (start) screen of a mobile device (Figure 3.7). There are three main parts of the home screen.

Basic gestures used

Gestures are used to interact with the touchscreen of your mobile device. For example, instead of clicking a mouse to open an App, you tap on the touchscreen. Some of these gestures' as shown in Figure 3.8 are as follows:

- **Tap:** Touch the screen with your finger, once, to click.

The top part of the screen is called the **Status Bar**. It displays icons to show network signal, battery life, Wi-Fi and Bluetooth connectivity, 3G/4G status etc.

This is the main part of the screen that consists of icons / shortcuts to the applications. These can be placed anywhere you want. There can be several pages depending on the number of apps present.

This is the lower part of the screen which is called the **Dock**. The apps in this area can always been seen even if we move to a different page.

Figure 3.7: Home Screen of a Mobile
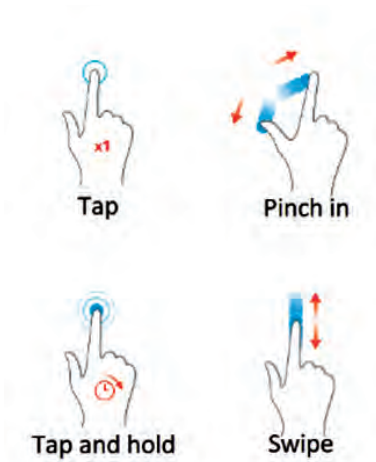
Figure 3.8: Basic gestures

- **Tap and hold:** This is similar to right-clicking your mouse.
- **Drag:** To tap, hold and move your finger across the screen.
- **Swipe:** To slide finger to the right, left, up or down of the screen like turning a page.
- **Double tap:** To tap twice quickly—this is to zoom out (increase the size of) of something. For example, to make a word appear bigger.
- **Pinch:** To bring thumb and finger together on the screen—to zoom in (reduce the size). For example, to make a picture appear smaller.

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Activity

Getting familiar with a mobile device

Materials required

Pen, notebook, smartphone, tablet

Procedure

- Form groups' depending on the number of mobile devices available. For example, if you have 3 smartphones and 2 Tablet, form 5 groups.
- Each member starts the device and notes down the names of icons in the status bar and the dock. One group of volunteers shall come in front of the class and read aloud what they have noted.
- The class then discusses the various features of the icons.

Check Your Progress

A. Multiple choice questions

1. What is a short-range wireless communication technology called?
   (a) Wi-Fi
   (b) Internet
   (c) Bluetooth
   (d) PS

2. Which part of the home screen is visible on all pages?

    (a) Status bar
    (b) Main icon area
    (c) Dock
    (d) Clock

3. What does GPS stand for?

    (a) Global Positioning System
    (b) Global Payment System
    (c) Global Program System
    (d) Global Pointing System

What have you learnt?

After completing this session, you will be able to

- identify various parts of a mobile device and list their functions.
- list the important features of a mobile device.

SESSION 4: PARTS OF COMPUTER AND PERIPHERALS

Parts of a computer

A computer system is a programmable machine designed to store and retrieve information and perform arithmetic and logical operations to produce meaningful results in desired format. It consists of three main units: Input Unit, Central Processing Unit (CPU) and Output Unit. Different computers have different ways in which the input, processing and output units are connected. In desktop computers, as shown in Figure 3.9, all three units are separate devices. It has: (i) a keyboard, which is the input unit, (ii) a box with the Central Processing Unit, which is the processing unit and (iii) a monitor, which is the output unit. Input unit helps the user to enter raw data and instructions into the computer system, central processing unit performs the required operations

Figure 3.9: Desktop Computer

as per given instructions and the output unit produces meaningful results in the desired format for the user. The CPU is further divided into three parts: (i) control unit (CU), (ii) arithmetic and logic unit (ALU), and (iii) memory unit (MU). Control unit acts as a receptionist and a manager of a company. It receives each and every instruction from user and coordinates between different parts to perform various operations. Arithmetic and logic unit acts as an accountant of a company, which performs all the mathematical and logical calculations and the memory unit acts as a temporary store of a company, where small amount of data is stored while other operations are being performed.

In a laptop, all three units, input, processing and output are combined into one device. Input and output devices are also called 'peripherals'. These are plugged into the computer using connection ports.

Input devices

Figure 3.10: Keyboard

An input device is used to enter information into the computer. A keyboard, as shown in Figure 3.10, is an input device used to enter letters, numbers and control functions. Microphone is an input device that is connected to the computer to record sound. A web camera is a device used to record videos. Many computers come with built-in microphones and webcams. Another input device is a scanner that copies physical documents and stores them in a computer in digital (computer-readable) format. For example, if you fill an admission form for a college, you can scan it and then e-mail it to the college instead of sending the actual form by post.

Output devices

Figure 3.11: Monitor

Output devices bring information from the computer to the user. If you want to calculate the percentage marks, you input all your marks using a keyboard, the computer calculates using the formula and you see the results on a monitor screen. This monitor, as shown in Figure 3.11, is the output device on which the computer displays the output information. In the same way, a

printer is an output device which gives us the hard copy of the information processed by the computer. If you want to hear the song you have recorded, you can use speakers to play them. Just like input devices, output devices can also be either separate or built-into the computer.

The commonly used peripheral devices are given in Table 3.4.

Table 3.4: Common Peripheral Devices

Keyboard: It is used to provide input to the computer on what to do, which could be in the form of typed letters, numbers, and symbols.	**Mouse**: We use it to go to different parts of the screen on the monitor.	**Microphone**: It is used to record voice on the computer, and communicate.	**Projector**: It is used to project images or video from computer on a screen.
Monitor: It displays all the visual output that CPU produces after processing the input.	**Speakers**: It plays back all the sound-based output.	**Scanner**: It is a device that scans/captures a paper image, document and converts it to digital file on computer.	**Printer**: It helps to print out the visual output on the paper, as displayed on the monitor.

Other peripheral devices and their functions

In large retail stores, a peripheral device commonly found is the barcode reader or barcode scanner. It is used for recording the items purchased in order to create the receipt/bill. In offices and homes, we use a peripheral device known as scanner, and it is used to convert the information on a paper document into a digital information document.
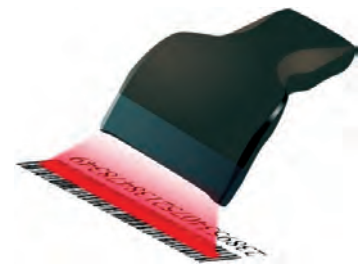
Figure 3.12: Barcode scanning

Figure 3.13: Central Processing Unit

Central Processing Unit

The Central Processing Unit (CPU) of the computer as shown in Figure 3.13, is like our brain. How does our brain work? Our eyes see (input) a mathematical problem and sends the details to the brain. The brain thinks (processes) and gets the result while the hand writes it on paper (output). In a similar way, the CPU also processes information received from the keyboard and gives the output to the monitor or the printer. Just as our brain can understand arithmetic and logical information, the CPU can also solve mathematical and logical problems.
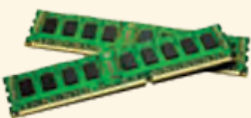
There are 3 main parts of the CPU.

- **Control unit:** It acts like a receiver and a manager of a company. It receives inputs from user and controls different parts to do the operations required.
- **Processing unit:** It acts as an accountant of a company and performs all the mathematical and logical calculations.
- **Memory unit:** It acts as the storage room of a company, where data is stored temporarily (RAM) as well as for a long time (ROM).

Understanding RAM and ROM

Let us take the example of a kitchen to understand the meaning of RAM and ROM. If you are a cook, what would you keep on the kitchen counter? And what would you store away in the kitchen shelves? Well, all the things you need immediately and regularly will be on the counter. And things that you do not access often will be in the shelves. Random Access Memory (RAM) is like the kitchen counter to a computer that is switched on, and Read Only Memory (ROM) is like the storage shelf. Flash memory is usually an external device which is a mix of both RAM and ROM. Some key differences between various storage devices are given in Table 3.5.

Table 3.5: Types of Memory Storage Devices

RAM	ROM	Flash Memory
• When you are doing tasks on your computer, you use RAM	• Permanently stores information	• Can permanently store information
• Temporarily stores information • Information is lost when computer is switched off • Information can be changed easily.	• Information is stored when computer is off • Information cannot be changed easily • It is mainly used when starting the computer.	• Information is not lost when computer is switched off • Information can be changed on easily. It is mainly used in removable storage devices (like USB), and its usage is based on user's needs.

Motherboard

Motherboard, also referred to as a system board, is the main circuit board inside a computer. It connects input, processing and output devices.

Some other important parts of a computer system are storage devices, ports and connections.

Storage devices

In order to transfer files from one computer to another one, you need smaller storage devices which you can carry easily from one place to another. These storage devices are used to store digital information. The commonly used storage devices are USB flash drive, hard disk, CD, DVD, etc., as shown in Figure 3.14. They

Compact Disc   USB Flash Drive   DVD   External Hard Disk

Figure 3.14: Storage Devices

mainly differ in their storage capacity (how much data they can store).

You may have heard of a computer with data storage capacity of 500 MB or 2GB. What does that mean? Data is stored in the form of bits and bytes. Bit (Binary Digit, represented by 0 or 1) is the smallest storage unit. Eight bits combined together form a byte, which in turn represents a character (numerals/letters/symbols).

- 8 bits make a byte and 1024 bytes make a kilobyte (KB).
- 1024 KB make 1 megabyte (MB)
- 1024 megabyte make 1 gigabyte (GB)
- 1024 gigabyte make 1 terabyte (TB)

Very simply, more the number of bytes, larger and more number of files can be stored.

Ports and connections

How do you think we connect our keyboard or mouse to the CPU? We do it with the help of wires. Where do you think the wires go in the CPU? The slots or channels into which we connect the mouse/keyboard/external hard disk wires are called ports. Thus, ports help us connect input, output and storage devices in a computer system.

There are several types of ports that you can use to connect a computer to an external devices and networks. These are:

- Universal serial bus or the USB port (as shown in Figure 3.15) which connects peripheral devices, such as a mouse or a keyboard or a printer to a computer using the cable.

Figure 3.15: USB Port

- Display port (as shown in Figure 3.16) which connects the monitor, or any display unit, to the computer using the cable. These can be of different types, like Video Graphics Array (VGA) and High Definition Multimedia Interface (HDMI), depending on the requirement.

Figure 3.16: RGB Display port (Left) and HDMI port (Right)

- Audio ports (as shown in Figure 3.17) help to connect microphone, speakers, and headphones to a computer system. Often, the speaker and

Figure 3.17: Audio Ports

headphone port is called the line out port, i.e., it is meant for sound output.

- Ethernet port (as shown in Figure 3.18) is used for connecting the system to high speed Internet cable.
- Power port (as shown in Figure 3.19) is used for connecting the computer system to the power supply.
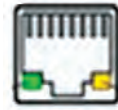
Figure 3.18: Ethernet Port

Figure 3.19: Power Port

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video write why do you think it is important to know the different parts of a computer?

Activity 1

Knowing your computer

Materials required

Pen/pencil, notebook

Procedure

- Form groups of 5 students each group.
- List the basic input output devices you need in a computer.
- Draw a diagram of a computer system showing all the devices connected to it. Label the diagram and mention the uses of the various devices.
- One volunteer from the group presents the illustration to the class and explains it to the students.

Activity 2

Connecting devices to a computer

Materials required

Pen/pencil, notebook, computer

Procedure

- Form groups of 5 students in each group.
- Each member of the group connects one of the parts of the computer, such as printer, monitor, keyboard, mouse and the speakers to the central processing unit.
- Fit the cables into the correct ports as explained and check if each device is working properly.

Check Your Progress

A. Multiple choice questions

1. Which of the following units make up the CPU? Choose and tick all the correct options.
   (a) Processing Unit
   (b) Input Unit
   (c) Memory Unit
   (d) Control Unit
   (e) Output Unit

2. Which of the following are names of ports in a computer? Choose and tick all the correct options.
   (a) HDMI
   (b) Input
   (c) VGA
   (d) USB
   (e) Ethernet

3. There is a talent contest in your town. For participating in the audition, you have to send a recording of a song. What would you connect to your computer to record your song?
   (a) Keyboard
   (b) Microphone
   (c) Scanner
   (d) Mouse

B. Short answer questions

Write the purpose of the I/O devices

Input/Output device	Purpose
Mic/microphone	
Scanner	
Camera	
Barcode Reader	
Printer	
Speaker	

What have you learnt?

After completing this session, you will be able to

- identify the basic parts of a computer.
- list the use of input and output devices.
- list the functions of the CPU.
- differentiate between RAM and ROM.
- identify the different ports and connections on a computer.

Session 5: Basic Computer Operations

Computer hardware and software

A computer system consists of two main parts—the hardware and the software. The physical parts that we can see and touch are called the hardware. It is the machinery of a computer. These are the keyboard, monitor, CPU, etc. The software that we cannot see makes the hardware work the way we want. For example, as shown in Figure 3.20, the monitor is a physical device or the hardware. When we start a program, it is displayed on the monitor. This is done by the software which displays things on monitor. Hardware would not be of any use without the software.

Figure 3.20: Hardware and Software

The most important software in any computer is the Operating System (OS). This is the software that starts
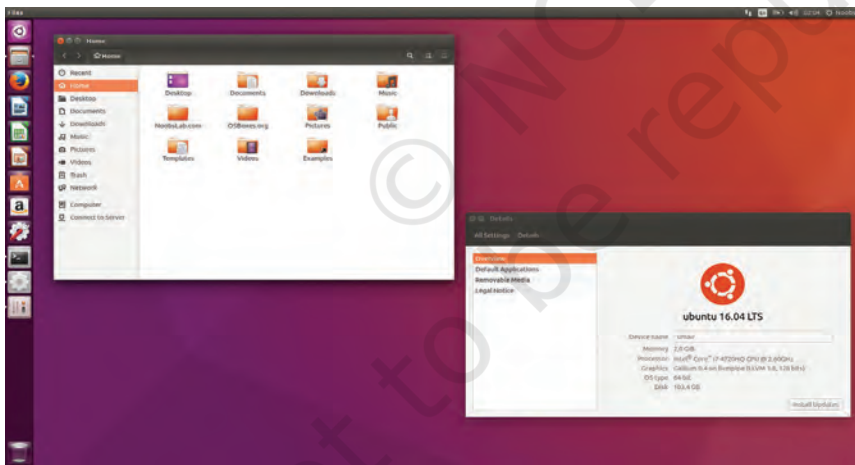
Figure 3.21: Ubuntu Desktop

working as soon as we switch on a computer. It displays the desktop on the monitor. Some of the most commonly used operating systems for laptops and desktop are Ubuntu (as shown in Figure 3.21), Microsoft Windows and Mac OS.

Mobile devices also have operating system that helps them perform their functions. Some of the mobile

Figure 3.22: Mobile Android OS

operating systems are Apple iOS and Google Android (as shown in Figure 3.22).

All the computer applications, such as browsers, games, Office tools, etc., are also software programs that perform a particular function.

Starting a computer

What is the first thing you do after you wake up in the morning? What if your father tells you to do your homework immediately? Can you do it? Maybe, but normally you would do some daily activities and get ready before you start working? Similarly when a computer is switched on, it performs some basic processes/functions, before it is ready to take instructions from the user.

Figure 3.23: Starting a Computer

To start a computer, press the Power ⏻ button on the CPU. This will start the Windows operating system and display the Windows desktop on the monitor.

Basic functions performed when a computer starts

Just as we go about with our morning routine, without anyone telling us what to do, a computer automatically runs a basic program called BIOS (Basic Input/Output System) as soon as it is switched on or the power button is pushed on.

The BIOS first does a self-test. If the self-test shows that the system is fine, the BIOS will load the Operating System. This means that the computer's operating system, for example Ubuntu, is now ready to take inputs from the user.

Figure 3.24: Sign-in in Windows

Login and logout

When multiple people use the same computer, each person has his/her own files and applications. To make sure nobody else sees your work, you have login-IDs and passwords. A login and password is like a key to the lock which allows you to use the computer.

When you login to the computer with your login-ID and password (as shown in Figures 3.24 and 3.25), the computer knows that you are an authorised person and allows you to work on the applications in the computer. Once you finish working, you must log out or **sign out** so that no one else can see your work.

Figure 3.25: Sign-in in Ubuntu

Shutting down a computer

You can shut down the computer in Ubuntu by clicking "Systems" at the top right and then click on Shut Down as shown in Figure 3.25. When you click Shut down, the Operating System will close all the applications and turn off the computer.

Using the keyboard

A keyboard is an input device used to type text, numbers and commands into the computer, as shown in Figure 3.26.

Figure 3.26: Parts of a Keyboard

Function keys

Keys labelled from F1 to F12 are function keys. You use them to perform specific functions. Their functions differ from program to program. The function of the F1 key in most programs is to get help on that program. Some keyboards may have fewer function keys.

Control keys

Keys, such as Control (CTRL), SHIFT, SPACEBAR, ALT, CAPS LOCK, and TAB, are special control keys that perform special functions depending on when and where they are used.

Enter key

The label on this key can be either ENTER or RETURN, depending on the brand of computer that you are using. You use the ENTER or the RETURN key to move the

cursor to the beginning of a new line. In some programs, it is used to send commands and to confirm a task on a computer.

Punctuation keys

It includes keys for punctuation marks, such as colon (:), semicolon (;), question mark (?), single quotation marks (' '), and double quotation marks (" ").

Navigation keys

Keys, such as the arrow keys, HOME, END, PAGE UP, and PAGE DOWN are navigation keys. These are used to move up and down, right and left in a document. The HOME and END keys move the cursor to the left/right end of a line of text, respectively. The PAGE UP and PAGE DOWN keys are used to move one page up and one page down, respectively.

Command keys

Keys, such as INSERT (INS), DELETE (DEL), and BACKSPACE are command keys. When the INSERT key is turned ON, it helps you overwrite characters to the right of the cursor. The DELETE key and the BACKSPACE key are used to remove typed text, characters, and other objects on the right and left side of the cursor, respectively.

Windows key

Pressing this key opens the **Start** menu.
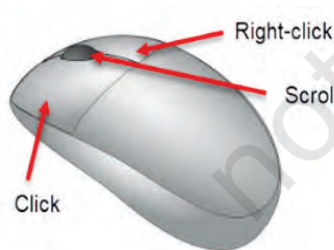
Using a mouse

A mouse, as shown in Figure 3.27 is a small device that you can use to move, select, and open items on your computer screen. Let us see some of the functions that can be performed using a mouse. Different application will behave differently to the mouse actions. Here we use the File Explorer to see the effect of the mouse action.

Figure 3.27: Mouse

Roll over/hover

Some actions can be done by simply rolling over or hovering over an item. When you bring the mouse

over a file in File Explorer, it will show the details of that file as shown in Figure 3.28.

Point and click

As you move the mouse on your desk, a pointer moves correspondingly on your screen. The mouse allows you to select an item on the screen. When you click a particular file, it gets selected as shown in Figure 3.29.

Drag and drop

To move an item, you need to click it, and then holding the mouse button down, move the item to a new location. After you move the item to the new location, you release the mouse button. This is called drag and drop. When you drag a file in File Explorer, you can pick it up from the present location and drop it in a new location where you release the mouse as shown in Figure 3.30.

Double-click

It means to quickly click the left mouse button twice. When we double-click the file icon, it will open the file.
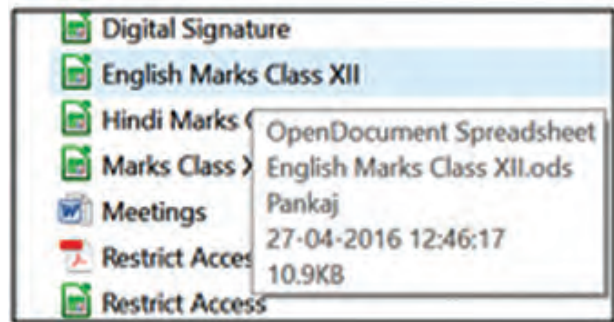
Figure 3.28: Roll Over
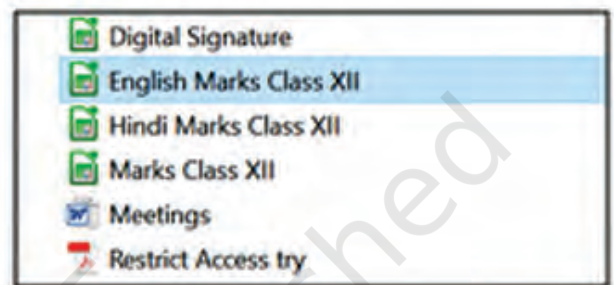
Figure 3.29: Point and Click

Figure 3.30: Drag and Drop

Practical Exercises

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/ Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video write what do you think happens when you start a computer and how do you enter data using a keyboard and mouse?

Activity 1

Use of computer

Materials required

Pen/pencil, notebook, computer

Procedure

1. Form groups depending on the number of computers available.
2. One student starts the computer and logs in. Another student identifies the keys on the keyboard. Another student then performs all the functions of the mouse, such as hover, click, double-click, etc.
3. After the students have performed all the activities, they will shut down the computer. Other students watch and give feedback on what was done right and which tasks can be improved.

Activity 2

Using the keyboard

Material required

Computer

Procedure

- Form groups depending on the number of computers available.
- Open a text editor in Ubuntu by typing 'editor' in the search bar and then selecting the Text Editor. You can also open Notepad in Windows by typing Notepad on the Windows Search bar and then selecting Notepad from the search result.

Figure 3.31: Typing

- Each student types the following letters on the text editor. Position your hands on the keyboard, as given in the Figure 3.31 and type the given letters and words. After one student is done, the next student practices the same until. All student should get a chance.

Letters in the home: rowasdf; lkjhj; asdfgf; lkjhj;

Letters in the top row: qwerty poiuy trewq yuiop

Letters in the bottom: rowzxcvb nm,./bvcxz.,mn

- Now, each student types five words using the keyboard. For example, add, all, ask, sad, gas, dad, lad, had, hall, fall, row, tow, top, out, pot, rot, wire, tire, type, write, cab, nab, man, can, van, ban. All students in the group should get a chance to practice.

Check Your Progress

A. Multiple choice questions

1. Which of the following functions are performed using a mouse. Choose and tick all the correct options.

   (a) Turn on computer
   (b) Typing
   (c) Right click
   (d) Drag and Drop an Icon

2. What is the term used when you press and hold the left mouse key and move the mouse around?

   (a) Highlighting
   (b) Dragging
   (c) Selecting
   (d) Moving

3. Rearrange the steps for starting a computer in the correct sequence.

   (a) Desktop appears after login   ( )
   (b) Login screen appears   ( )
   (c) Power on Self-Test (POST) starts   ( )
   (d) Operating system starts   ( )
   (e) Welcome screen appears   ( )

B. Short answer questions

1. Describe the functions of at least 5 types of keys.

2. Describe the functions of a mouse.

What Have You Learnt?

After completing this session, you will be able to

- start and shut down a computer.
- identify the various keys on a keyboard and their associated functions.
- use a mouse.
- type simple words.

SESSION 6: PERFORMING BASIC FILE OPERATIONS

Need to perform basic file operations

In any school (or office), each teacher has a separate cabinet, as shown in Figure 3.32 where they keep the files of different students/classes on separate shelves. Similarly, information on a computer is stored in
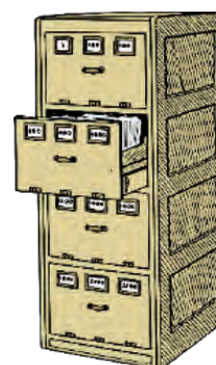
Figure 3.32: File Cabinet

electronic files, which can be put into separate folders. It is easier to manage the electronic files as they can be simply copied, moved, renamed or even deleted.

Files and folders

All information stored in a computer is kept in **files**. Different types of files store different types of information. Each file is given a **file name** and has a **file name extension** that identifies the file type. (The file name and file name extension are separated by a period or a 'dot'.) For example, a document (e.g., with the name Neha) created using **Notepad** (a type of computer application to create simple text files) will have the extension **.txt**. There are other types like .doc, .xls, etc. An image file usually has an extension **.jpg,** while a sound file usually has **.mp3**. A **folder** is a location where a group of files can be stored.

Creating a file (using a text editor in Ubuntu)

When a student, Neha, joins a class, the teacher creates a file on the computer to store Neha's information, such as name, address, phone number, etc. Let us create a new file using a text editor in Ubuntu.

- To open a text editor, type 'editor' in the search dialog box. Then double-click the text editor option as shown in Figure 3.33 and 3.34. This will open a blank document. In Windows, you can open Notepad and type in the text.
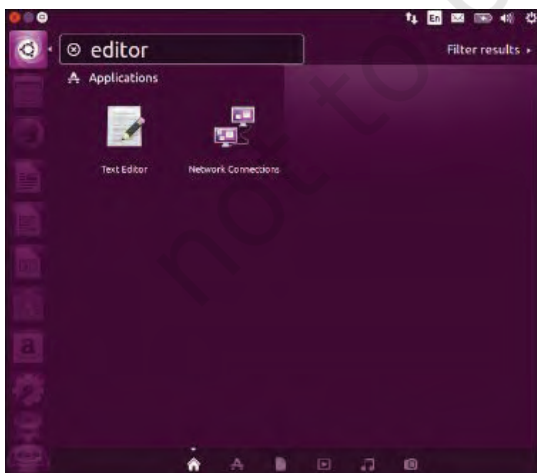
Figure 3.33: Opening Text Editor
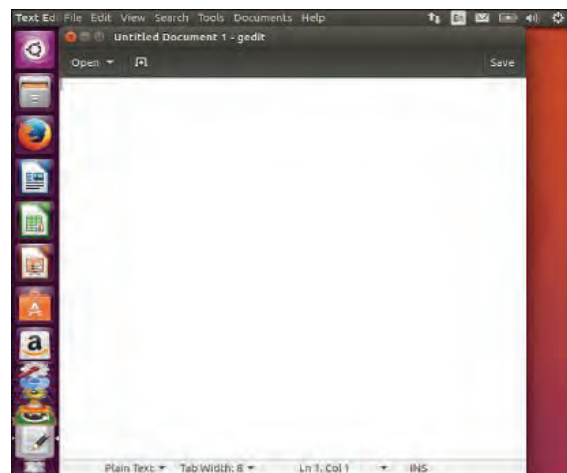
Figure 3.34: Text Editor

- Here you can add text, such as 'Neha Tiwari, Shakti Nagar, New Delhi. M: 7856453451'
- To save the file click Save. In the Save As dialog box, browse to the Desktop folder, type the name as 'Neha' and click Save as shown in Figure 3.35.
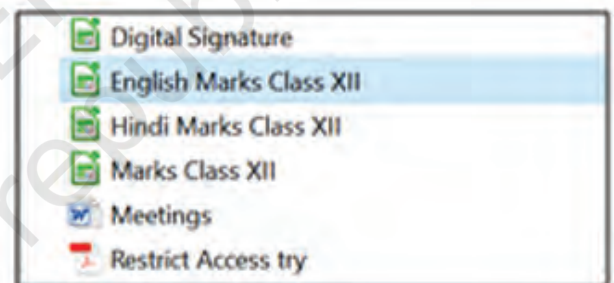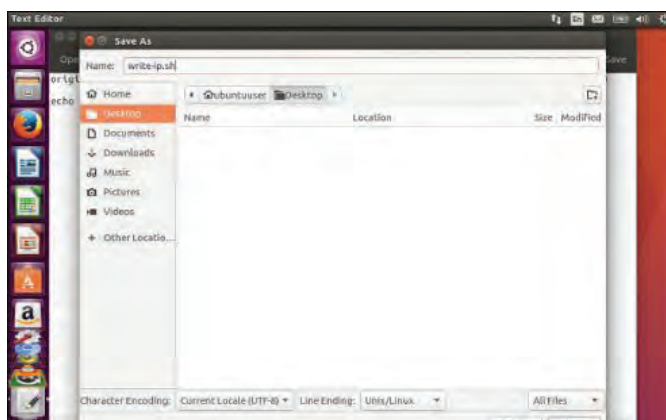

Figure 3.35: Saving a File

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson viahttp://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic why do you think it's important to know how files are stored in a computer?

Activity 1

Create a file

Materials required

Pen/pencil, notebook, computer

Procedure

- Form groups, depending on the number of computers available. Each member of the group creates a file. Others can watch and give feedback on what was done correctly and what can be improved.
- Open a text editor in Ubuntu or Notepad in Windows.
- Type details, such as name, class, address, parent's name, etc., for a student
- Save the file on the desktop.

Each student studies the shortcut given below:

CTRL+z undo	CTRL+c copy	
CTRL+y redo	CTRL+v paste	
CTRL+a select all	CTRL+p print	
CTRL+x cut	CTRL+s save	
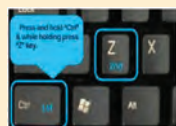
The first group asks the other groups a questions (e.g., what does CRTL+Z do? or what is the shortcut for Copy).

Check Your Progress

What Have You Learnt?

After completing this session, you will be able to

- demonstrate the knowledge of the computer files and folders.
- open a new file in a text editor, type in the details and save the file.

SESSION 7: COMMUNICATION AND NETWORKING — BASICS OF INTERNET

Figure 3.36: The Internet

The Internet is a huge network of computers around the world. Using the Internet you can get any information that is stored in a web page on the World Wide Web. You can do all this by connecting your computer to the Internet.

If your computer is connected to the Internet, you say that your computer is online. With the help of the Internet, you can gather a lot of knowledge which is available on it. The knowledge is stored in a big library/ storehouse, called the World Wide Web (WWW) or the Web. It is a collection of different websites that you can view if you are connected to the Internet. You can also

use these websites to buy something, watch movies, read books, learn new skills, educate yourself, find the best colleges to study further, etc.

Uses of the Internet

There is no limit to what you can do online, but some of the most common uses are given in Table 3.6.

Table 3.6: Common uses of Internet

	Search information: You can get the latest information about anything that is uploaded on the web, whether it is result, news about an earthquake, a cricket match or the election details.		**Shopping:** You can buy and sell products, such as books and electronic goods over the Internet. You can also pay for these products via digital modes of payments, such as wallets, plastic cardsor through e-banking.
	Entertainment: You can listen to music, play games, watch movies or share pictures.		**Online booking:** You can book movie tickets, hotels, bus/train/plane tickets, etc., online.
	E-mail and chatting: You can talk or send messages to people all around the world quickly and easily. The messages you send over the Internet can reach any part of world in just a few seconds. For example, Gmail and Outlook.		**Online learning:** There are a number of courses available online—some are free while others are not. You can do a course on a topic you like or want to know more about.
	Social networking: You can share your interests, knowledge and stories with your family and friends around the world. For example, Facebook and Twitter.		**Online banking:** You can do banking operations, like checking details of your bank account or transferring money from one account to another through mobile banking/NEFT/RTGS.

Connecting to the Internet

As shown in Figure 3.37, to connect to the Internet, you need:

(a) A device, such as a computer, laptop or mobile.

(b) A connection device, i.e., a modem.

An Internet Service Provider (ISP)—i.e., the telephone company which provides the Internet connectivity using the phone lines or a wireless network.
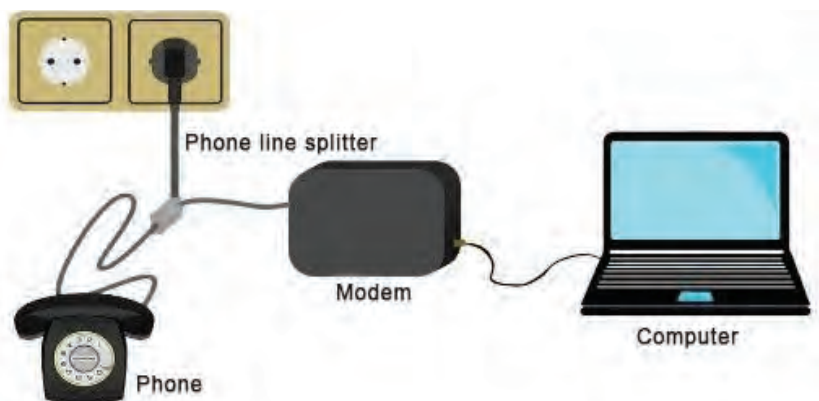
Figure 3.37: Connecting to the Internet
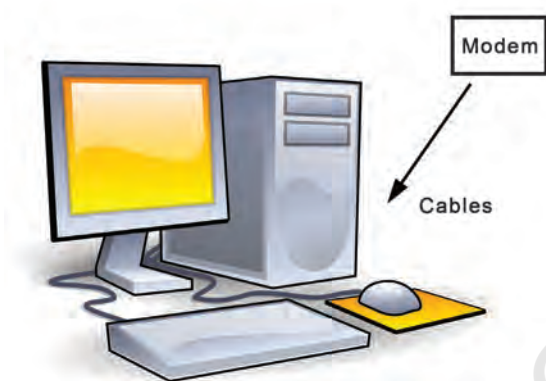
Figure 3.38: Wired connection

Figure 3.38A: Wireless connection

Types of connections

(a) Wired connections: When our computer is connected to the Internet using a wire, it is called a wired connection (as shown in Figure 3.38). We use Ethernet cables (cables used for connecting to the Internet) to connect to the modem which connects to the ISP using a phone line.

(b) Wireless connection: You can also connect your computer to the Internet using wireless technology as shown in Figure 3.38A. Laptops need a wireless Internet card to connect to a modem with using any cables.

Bandwidth

Bandwidth is the amount of data that can be transmitted over a network in a certain amount of time. To understand bandwidth, Let us take the example of a pipe, the amount of water flowing through a pipe depends on its thickness. Similarly, the amount of data that your network can receive or send depends on its bandwidth. In case of digital devices, the bandwidth is usually expressed in bits per second (bps) or bytes per second and in case

of analog devices, the bandwidth is expressed in cycles per second, or Hertz (Hz).

Data transfer speed over the networks (including the internet) is calculated in terms of bits per second.

1 Kbps (kilo bits per second) = 1000 bits per second
1 Mbps (mega bits per second) = 1000 kilo bits per second
1 Gbps (giga bits per second) = 1,000 mega bits per second

Internet browser

To see the information on the various websites, you need an Internet Browser. An Internet Browser is an application or a software program on your computer or laptop which helps you visit the various websites. Some examples of browsers are Google Chrome, Mozilla Firefox and Internet Explorer (Figure 3.39).

Figure 3.39: Some Internet Browsers

(a) Searching for information: Do the steps below to search for information on the Internet.

Open an Internet browser, as shown in Figure 3.40.
- Type the topic, on which you want information, in the **search box** and hit the Enter key.
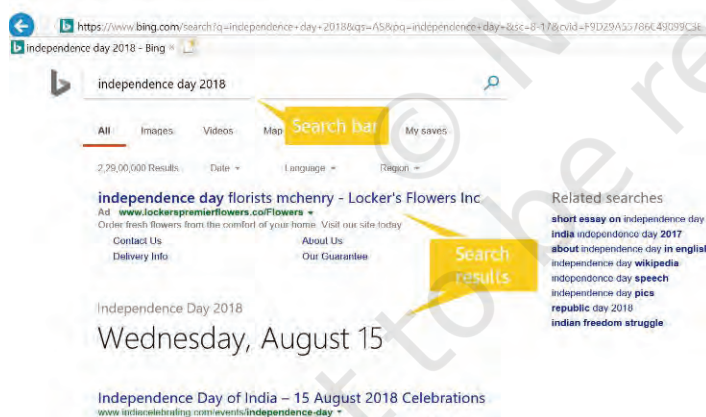
Figure 3.40: Internet Explorer
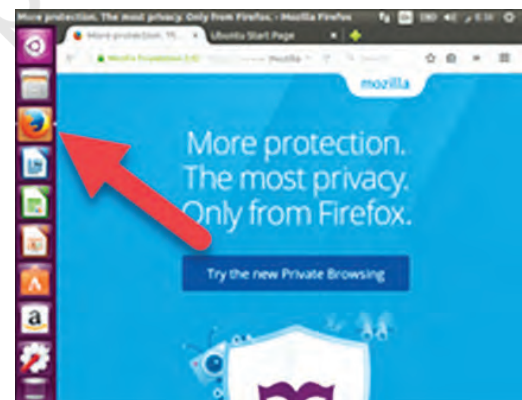
Figure 3.41: Firefox in Ubuntu

- The **search results** having the required information will be displayed.
- In Ubuntu, click Firefox icon as shown in Figure 3.41 to open Firefox Mozilla browser and search for information.

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic, write down why do you think the first person did not have enough information about available jobs.

Activity 1

Uses of the Internet

Materials required

Pen/pencil, notebook

Procedure

- Form groups depending on the number of computers available.
- Discuss the various uses of the Internet. Every member gives one use and what he/she would do using an Internet connection. Rest of the group should give feedback on whether it is correct and not. One group volunteers and presents to class. Students give feedback.

Check Your Progress

A. Multiple choice questions

1. To connect to the Internet, the computer has to be connected to the _____.
   - (a) Internet Society
   - (b) Internet Architecture
   - (c) Internet Service Provider
   - (d) Large Area Network
2. What is the Internet?
   - (a) Phone connections
   - (b) Collection of computer networks
   - (c) Network of computers in an office
   - (d) None of the above

B. Short answer question

1. Write a short note on the uses of internet.

What have you learnt?

After completing this session, you will be able to

- search information on the Internet.
- identify the various uses of Internet.

SESSION 8: COMMUNICATION AND NETWORKING— INTERNET BROWSING

World Wide Web

The World Wide Web (WWW) or simply the Web is a huge collection of information as shown symbolically in Figure 3.42. It is a vast network of linked hypertext files, stored on computers throughout the world, that can provide a computer user with information on a huge variety of subjects. Thus, it serves as a platform through which users can use or share information.

Figure 3.42: Symbolic Representation of World Wide Web (WWW)

It is made up of

- A web page
- A web browser
- A system to transfer information between the web browser and the web pages

Web page

A web page is a document present on a computer that is connected to the Internet. There are hundreds of web pages. Each web page has a unique address/location like the address of a house. We can use the address to see a particular web page. For example, the address of NCERT is *http://ncert.nic.in* as shown in Figure 3.43. To view a web page you need a web browser on your computer.

Figure 3.43: Web Address

Web browser

A web browser (commonly referred to as a browser) is a software application for using and sharing information on the World Wide Web.

Mozilla Firefox	Google Chrome	Internet Explorer	Apple Safari	Opera

Figure 3.44: Web browsers
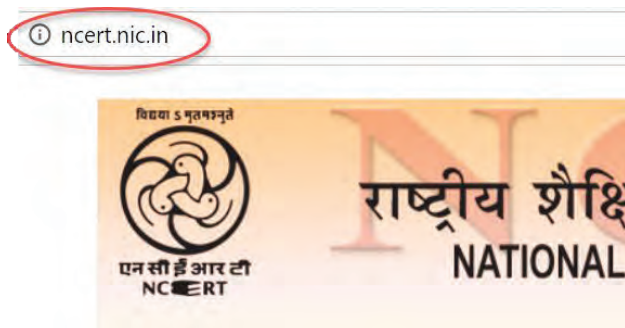
Figure 3.45: Web browser

The most popular web browsers that are used today are shown in Figure 3.44.

If you want to see a web page that gives information on plants, you type that address in the web browser in the address bar as shown in Figure 3.45. Then the web page on plants will be displayed in the browser.

(a) Hyperlinks: Very often, there are hyperlinks (highlighted and underlined words) present on web pages. If you click a hyperlink, it will take you to another part on the same page or to a different page.

Figure 3.46: Parts of a Browser

(b) Important parts of a web browser (as shown in Figure 3.46):

(i) *Address bar (Alt+d)*: You can type the address/URL of a web page in this box and press Enter. The browser will display the page linked to that URL.

(ii) *Tabbed browsing (Ctrl+T):* Tabbed browsing allows a user to view multiple pages in the same window. So if you want to compare two types of plants, for example, trees and shrubs, you can open the two in two different tabs.

(iii) *Back and forward buttons (Alt+Left or right arrow keys):* These buttons allow you to go back to the last page viewed, or go forward to the next page viewed. For example, in the previous example, if you click 'Back' arrow on the 'Flowers' page it will take you back to the 'Table of Content'.

(iv) *Refresh button (F5):* Sometimes, you do not see the complete page correctly. You can reload the page by clicking the Refresh button.

Figure 3.47: Searching for Information

(v) *Steps to browse a web page:* Open a web browser, such as Internet Explorer or Google Chrome. To search for information, follow the given steps:

- Type http://google.co.in in the address bar
- Type 'best hill station in India' in the Google search bar
- Press **Enter**
- Scroll the screen and click on the link for the page you want to see.

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic, write why do you think the second person told her friend that she neither needs books or someone else to get information about anything?

Activity

Web browsing

Materials required

Pen/pencil, notebook, computer with an Internet connection

Procedure

1. Form groups depending on the number of computers available.
2. One member does the steps while the other watches and give feedback on what was done correctly and what can be improved.

Do the following

- You are planning to go to your relative's place who lives in another city.
- Use Internet (IRCTC, etc.) find out which trains are going there, their timings and ticket fare.
- Find out about two cities you want to visit and places you can visit in these cities.
- Use Internet (IRCTC) to find out which trains connect these two cities, their timings and ticket fare.

Check Your Progress

A. Multiple choice questions

1. What do I need to get information from the World Wide Web?
   (a) Computer
   (b) Browser
   (c) Internet Connection
   (d) All of the above

2. Which of the following is a web browser?
   (a) Internet
   (b) Chrome
   (c) Windows
   (d) None of the above

B. Short answer questions

1. List the steps to search for information using a web browser.

What Have You Learnt?

After completing this session, you will be able to

- use a web browser to search for information on the Internet.

SESSION 9: COMMUNICATION AND NETWORKING— INTRODUCTION TO e-MAIL
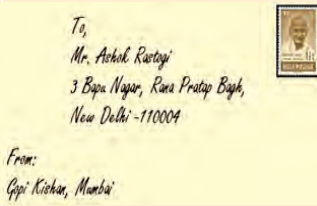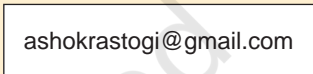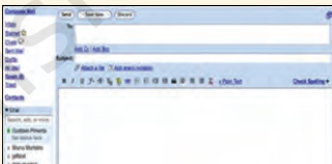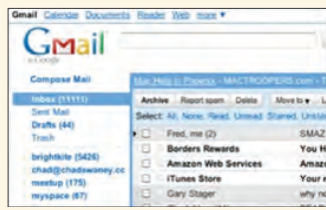
Electronic mail or e-mail is a quick way of sending messages to people using the Internet. Electronic mail is a message sent over the Internet from one person to another. It consists of lines of text and images. The invention of e-mail has influenced our lives and they have become a popular means of communication.

How does the e-mail work?

Files containing videos, documents, spreadsheets, etc., can be sent along with the e-mail as attachments. E-mail is fast and easy to use and it can be sent to multiple people at the same time.

Let us compare the way a postal mail and an e-mail is sent as shown in Table 3.7.

Table 3.7: Comparing Postal mail vs. e-mail

		Postal Mail	e-mail
Address	Postal mail address is a street, city, etc., of a geographical location while an e-mail address is a digital location on a mail computer where you can send or receive an electronic message.	To, Mr. Ashok Rastogi 3 Bapa Nagar, Rana Pratap Bagh, New Delhi -110004 From: Gopi Kishan, Mumbai	ashokrastogi@gmail.com
Written on	Postal mail is written with paper and pen. An e-mail is written on a computer or mobile device.		
Sent via	Postal mail is sent by bus, air, train while an e-mail travels in a digital format over an Internet connection.		
Received in	Postal mail is brought by the postman and dropped into the letterbox outside our house. E-mail comes into the Inbox of the receiver's e-mail account.		

E-mail ID or Address

The general format of an e-mail address is local_part@domain. An example of an e-mail address is ashokrastogi_1@gmail.com.

- An e-mail address is made up of two parts separated by the @ symbol. The part before the @

symbol is created by the user and is usually the name of the person, for example, *ashokrastogi_1.* This is different for every user. One might need to add numbers or any other prefix or suffix in case someone else has already taken that mail address before him. One person can only have a specific e-mail address.

- The part after the '@' symbol is the domain name of e-mail service provider, i.e., the company that provides the e-mail service. Here *gmail.com* is the domain name of Google. For example, Gmail by Google, Outlook.com by Microsoft and yahoo.co.in by Yahoo!

Advantages of e-mail

E-mails can be sent to multiple users along with the attachments. They are fast as they reach anyone around the world immediately, free as most services do not charge money and it is environment friendly, as no paper is used.

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic where the boy he is going to send a post card, what suggestion did his friend give?

Activity 1

Advantages of using e-mail

Materials required

Pen/pencil, notebook

Procedure

- Form groups of 5 students each.
- Discuss how writing e-mail is better than sending a letter through postal mail. Every student says whether he/she prefers to send an e-mail or post a letter and why.

Check Your Progress

A. State whether the following statements are True or False

1. Email cannot be sent to more than one person at a time.

2. Email is an electronic message sent over the Internet or a computer network.

3. Pictures, videos, audio files, and spreadsheet files cannot be attached with an e-mail.

What have you learnt?

After completing this session, you will be able to

- differentiate between postal mail and electronic mail.
- write an e-mail message.
- list the benefits of an e-mail account.

SESSION 10: COMMUNICATION AND NETWORKING— CREATING AN E-MAIL ACCOUNT

Creating an e-mail account

To set up an e-mail account, there are a number of popular providers to consider (Figure 3.48).

(a) Gmail (run by Google)

(b) Outlook mail (run by Microsoft)

(c) Yahoo mail (run by Yahoo)

Figure 3.48: Email service providers

Here we will learn how to create an e-mail account using Gmail. All e-mail hosting sites will have similar procedures.

Steps to open an e-mail account on Gmail

1. Go to www.gmail.com and click "Create an account".

2. The sign up form will appear. You will need to fill your name, username, password and other details in a sign-up form. A password should be at least 8 characters long and contain letters, numbers and special characters (e.g., $%#). This will make it more secure.

3. Fill in other details as your phone number, country, etc. Review the Terms of Service and Privacy Policy, click the check box, and then click **Next step**.

4. Google welcome page will appear. Click on the '**Continue to Gmail'**. This will display your Gmail account page.

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic why, do you think the person could not send an e-mail?

Activity

Creating an e-mail account

Materials required

Pen/pencil, notebook, computer with Internet connection

Procedure

- Form groups, depending on the number of computers available.
- Each student takes turns to:
  (a) create an e-mail account using gmail.com (or any other free service). NOTE: make careful note of your e-mail address and password.
  (b) sign out and sign in the e-mail account. Do not share password with others.

Check Your Progress

1. Multiple choice questions

1. Here are the steps to sign in to your Gmail account.
   (i) Type username   (ii) Go to www.gmail.com
   (iii) Click Sign in   (iv) Type password

   Choose the option with the correct order.
   (a) i > ii > iv > iii
   (b) ii > i > iii > iv
   (c) ii> i > iv > iii
   (d) ii > iii > i > iv

2. Which one of the following statements is false?
   (a) You need to create an account before you can send an e-mail.
   (b) You should sign out of your account when you are not using the computer.
   (c) You do not need an Internet connection to use your Gmail account.
   (d) You must not share your password with others.

3. Which of the following is an e-mail service?
   (a) WhatsApp
   (b) WeChat
   (c) Gmail
   (d) Facebook

Short answer questions

1. What characters should the password have in e-mail address, to make it more secure?

> **After completing this session, you will be able to**
> - create an e-mail account.
> - sign in and sign out an e-mail account.

SESSION 11: COMMUNICATION AND NETWORKING— WRITING AN E-MAIL

Gmail is a free e-mail application. Let us learn how to use it.

1. To write a new e-mail, connect to the Internet and open Gmail.

2. Type 'gmail.com' in the address bar of Internet Explorer.

3. To start using Gmail, you need to sign in. Type your e-mail ID and password in the given areas and click on the **Sign in** button as shown in Figure 3.49

4. Click on the **COMPOSE** button on the Gmail home page.

Figure 3.49: Sign in page
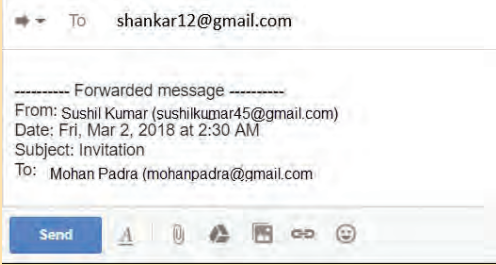
This will open a **New Message** window. Let us understand this with an example. Mohan Padra wants to send Diwali greetings to his sister, his wife and daughter. He wants do this by writing an e-mail using the Gmail account he just created. In the **To**: section he types the e-mail ID of his sister, i.e., mohini@gmail.com

- In the **Cc**: section he types the e-mail IDs of his wife, sagasika@gmail.com and her daughter shalloo@gmail.com. In this way he is able to send the same message to all three at once instead of writing it three times.

Figure 3.50: Compose email

- In the **Subject**: section, he writes 'Happy Diwali' which is the main topic of the e-mail message.

- He starts the **main body** of the message with a greeting "Hello everyone". This can change depending on whom you are writing the mail to. Then he writes the complete message. He ends

the e-mail message with "best wishes" and his name (Mohan).

- When he click the **Send** button, the e-mail will reach the recipients.

Follow the given steps to write an e-mail

	1. In the **To** section, write the e-mail-id of the person you are sending the mail to.
	2. In the **Cc** section, write the e-mail-ids of all the people to whom you want to send copies of the message.
	3. In the **Subject**, write the topic of the mail. For example, Happy Diwali.
	4. In the **main body**, type the message you want to send. This will include the salutation in the beginning, main message in the middle and signature at the end.
	5. After you type the message, click **Send**.

The mail will be sent to all the people whose e-mail addresses you have given in the **To** and **Cc** sections.

Figure 3.51: Attach a file

Attaching a file to an e-mail

An attachment is a type of file such as a photo or document that you can send along with your e-mail. To add an attachment you need to click on the Attach button.

- The Attach button often has a paperclip as its symbol
- When you click on the Attach button it opens up a new window
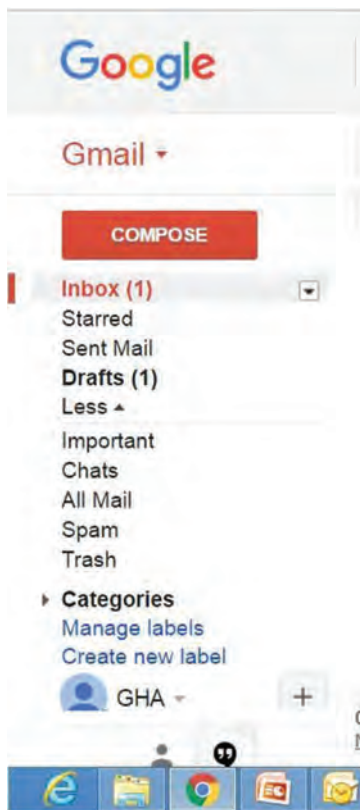
Figure 3.52: Folders

- The window shows you files and folders on your computer
- Find and then click on the file you want to attach and press OK
- The file will now show as an attachment in your e-mail
- The name of the file will be shown next to a paper clip symbol

Managing Folders

There are different folders that could help you manage and organise your e-mails.

- The **Inbox** holds e-mails that people have sent to you
- The **Sent** folder holds e-mails that you have sent to people
- The **Drafts** folder holds all the e-mail you have started writing, but not yet sent
- The **Junk/Spam** folder holds e-mails that may not be useful
- The **Trash** can or folder holds e-mails that you no longer need and have deleted. To delete an e-mail, you select an e-mail and then click on the Delete button for it to be moved from inbox to trash folder (see Figure 3.52).

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Initial thinking activity

After watching the initial video in the e-learning lesson for this topic what do you think is the first thing you will do after creating your e-mail account.

Activity 1

Writing an e-mail

Materials required

Pen/pencil, notebook, computer with an Internet connection

Procedure

- Form groups, depending on the number of computers available.
- Each student writes an e-mail to two of the other group members using their newly created e-mail address wishing them for a future festival. Other members watch and guide the student.

Check Your Progress

A. Multiple choice questions

1. What do you type in the "To" field?
   (a) The topic of the e-mail
   (b) The main message of the e-mail
   (c) Email address of the person to whom you want to send a copy of the e-mail
   (d) Email address of the person you are sending the mail to

2. You want to send an e-mail message to your friend Sushil. In which order will you perform the given steps to write and send an e-mail to him?

   (i) Type Sushil's e-mail address, subject and message
   (ii) Click on the Compose button (iii) Click Send (iv) Open your e-mail account.
   (a) (iv)>(ii)>(i)>(iii)
   (b) (iv)>(i)>(ii)>(iii)
   (c) (iv)>(i)>(iii)>(ii)
   (d) (iii)>(i)>(ii)>(iv)

B. Fill in the blanks

1. In "**To**:" section _____ is typed for sending a message through e-mail.

2. The Attach button in e-mail often has a _____ as its symbol.

3. In the _____ section of the e-mail, the topic of the mail is written.

4. After typing the message in the main body of the e-mail, you need to click on _____ button to send the e-mail.

What have you learnt?

After completing this session, you will be able to

- identify the various elements of the e-mail message.
- compose and send an e-mail message.
- attach files in an e-mail.

SESSION 12: COMMUNICATION AND NETWORKING — RECEIVING AND REPLYING TO E-MAILS

Receiving an e-mail

Imagine your friend sends you an e-mail. The e-mail will appear in your **Inbox**. It shows the name of the sender, subject and a title of the main message. It will remain **bold** till you open it.

1. Click on the mail to open it.

2. Once you have read the e-mail, you can **reply**, **forward** or **delete** the mail.

3. If the invitation was sent to many people, you get another option, i.e., **Reply to All**. When you click this, the reply will be sent to all the people who received a copy of this mail.

Replying to an e-mail

To reply to this e-mail:

1. Click on the **Reply** option at the bottom. This will open a space where you can write your reply. The e-mail address of the person to whom this e-mail will be sent is already present at the top (Figure 3.53)

2. Type your reply and click **Send**.
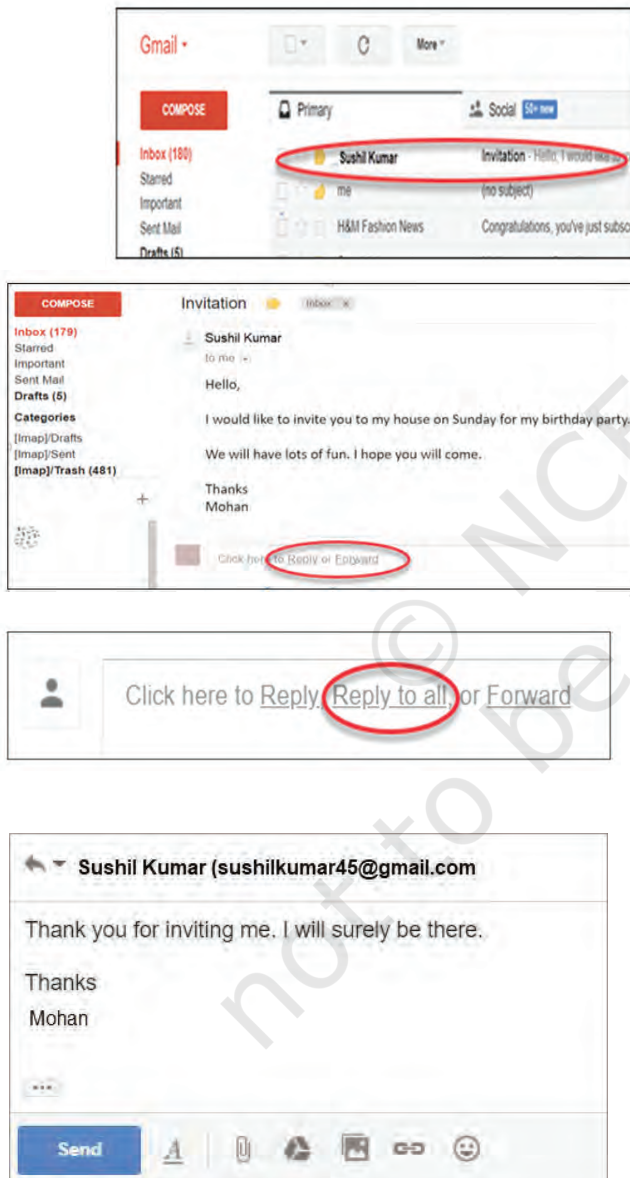
Figure 3.53: Reply to an email

Forwarding an e-mail

You can also forward this e-mail to your parents to inform them about the invitation.

1. When you click on "**Forward**", a space is displayed with the old message copied to it (Figure 3.54).

Figure 3.54: Forward an email

2. You can give the e-mail address of the person(s) you want to forward to and write anything extra you want to add.

3. Then click on the "**Send**" button.

Deleting an e-mail

You can delete the mail by clicking on the delete 🗑 icon (Figure 3.55). This will remove the e-mail from your inbox and move it to the "Trash" folder. It will remain there for a few days before it is removed from the system.
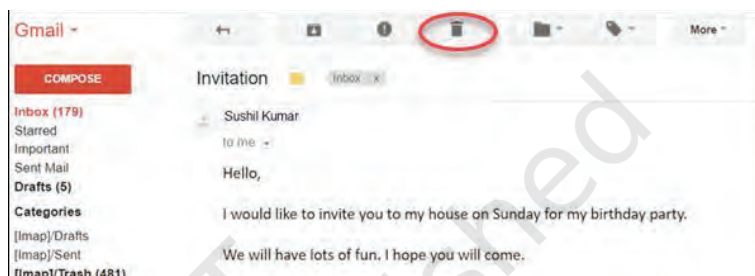
Figure 3.55: Delete an email

Practical Exercise

The teacher will facilitate these activities by showing you the e-learning module for this lesson via http://www.psscive.ac.in/Employability_Skills.html. The module will include videos and e-content for the above topics as well as detailed instructions for some activities below.

Activity 1

Receiving and replying to an e-mail

Materials required

Pen/pencil, notebook, computer with an Internet connection

Procedure

• Form groups depending on the number of computers available.
• The teacher sends an e-mail to a student in each group informing them about a group dance competition.

All details about the date, time, venue, etc., is described in the mail.
- The leader reads the e-mail and then forwards it to all his group members to inform them about the details of the dance competition. The leader discusses with the group whether they want to take part or not and then sends a reply to the teacher.

Check Your Progress

A. State whether the following statements are True or False.

1. By choosing the "Reply" option, the e-mail address of the sender of the original message will appear in the "To" field.

2. Email is an electronic message transmitted over the Internet or computer network from one user to another.

3. You can forward the e-mail by clicking on the delete 🗑 icon.

What have you learnt?

After completing this session, you will be able to
- identify a new mail in your inbox.
- reply or forward an e-mail.
- delete an e-mail.

GLOSSARY

Applications/Apps: *software programs on a mobile device which perform specific tasks*

Attachment: *adding a file to an e-mail*

Barcode: *a machine-readable code in the form of numbers and a pattern of parallel lines of varying widths, printed on a commodity and used especially for stock control*

Bytes: *a group of binary digits or bits (usually eight) operated on as a unit, a byte is considered as a unit of memory size*

Digital: *the information that is stored on a computer is said to be in a digital form*

Drag: *to pull an icon or something on the screen with a mouse of a computer*

E-Commerce: *it is a process of buying and selling goods online*

Email: *a way of sending messages over the Internet*

Ethernet: *a system for connecting a number of computer systems to form a local area network*

File: *a document on a computer. There are different types of files*

Folder: *a location on the computer. It may contain many files or sub-folders*

Gestures: *the actions you do with your fingers to interact with a touch screen*

ICT: *it is an abbreviation of Information and Communication Technology*

Internet Browser: *it is a software which helps you search for information online*

Internet: *a number of computers connected together to provide information*

Junk: *the location for storing unwanted e-mail as determined by a spam filter*

Messaging: *sending text, audio and video messages over an Internet connection*

Motherboard: *a printed circuit board containing the principal components of a computer or other device, with connectors for other boards to be slotted into*

Navigation: *the action of moving around a website, the Internet, etc.*

Operating/operate: *control the functioning of (a machine, process, or system)*

Peripheral: *a device that you are able to attach to and use with a computer, though it does not form an integral part of it*

Port: *a socket in a computer network into which a device can be plugged*

Privacy: *the state of being free from public attention*

Reply to all: *an option present when we want to reply to all the recepients, if we choose Reply to all, the reply will be sent to all the people the mail was sent to or received from*

Scanner: *a device that scans documents and converts them into digital data*

Smartphone: *a mobile device that is used to make calls, connect to the Internet and run applications that do a variety of functions*

Tablet: *a mobile device like a smartphone but with a bigger size*

Web Browser: *a software used to browse information on WWW using Internet*

Web Page: *it displays information in the form of text, graphics, audio or video*

Wi-Fi: *a wireless connection to the Internet*

World Wide Web (WWW): *it is a collection of information located on computers around the world*

FURTHER READINGS

Session 1: Introduction to ICT
- https://bit.ly/2pYKPKF

Session 2: ICT Tools – Smartphones and Tables – 1
- https://bit.ly/2zolM6d

Session 3: ICT Tools – Smartphones and Tables – 2
- https://bit.ly/2vvtqdN

Session 4: Parts of a computer and peripherals
- https://bit.ly/2w3GL0J

Session 5: Basic Computer Operations
- https://bit.ly/2EbIl0o

Session 6: Performing basic file operations
- https://bit.ly/2oPHluK

Session 7: Communications and Networking – Basics of Internet
- https://bit.ly/2vkoUS4

Session 8: Communications and Networking – Internet Browsing
- https://bit.ly/2vikTix

Session 9: Communications and Networking – Introduction to Email
- https://bit.ly/2GpsNfm
- https://bit.ly/1C4PJDi

Session 10: Communications and Networking – Creating an Email Account
- https://bit.ly/2GpsNfm
- https://bit.ly/2vwslCD
- https://bit.ly/1C4PJDi

Session 11: Communications and Networking – Writing an Email
- https://bit.ly/2xGttUQ

Session 12: Communications and Networking–Receiving and Replying to Email
- https://bit.ly/2wWjrln

Entrepreneurship Skills

INTRODUCTION

Business is an economic activity which is related with continuous and regular production and distribution of goods and services for satisfying human wants. Businesses can be for-profit entities or nonprofit organisations. Businesses cater to the needs of the society. But sometimes we find that there is a gap between what is needed and is available. This gap can be used as an opportunity by some people who are ready to take risk and fill the gap by providing necessary products and services. Such people are entrepreneurs.

An entrepreneur is a person who is self-employed, is willing to take a calculated risk and brings in a new idea to start a business. It is, however, important to understand that all self-employed persons are not entrepreneurs, for example, a shopkeeper cannot be called an entrepreneur unless he/she introduces a new method or idea in the business.

SESSION 1: WHAT IS ENTREPRENEURSHIP?

Does your mother ask you to buy things from the market near your house? Do you buy things for yourself from

shops near your house? Maybe you have bought milk, vegetables, fruits, books and pencil from a shop, ice-cream, etc., which of those shops you buy these items from? Visit the market and make a list of things you buy from the market and categorise them as food items, vegetables, fruits, stationery, confectionery, etc.

What are the things you buy?	What shops do you buy from?	Does the seller work for self or for someone else?
Food items: *Dal*, rice, spices	*Kirana* shop	Yes, for self
Readymade clothes	Big store in a mall	No—the sales person is an employee of a chain

Did you notice that while some people are the owners of businesses, others are employed and get a salary/ wage? The owners are self-employed while the employees are wage earners (work for others and get a salary).

New ideas with which an entrepreneur adds value to a business can be of many kinds, including new kinds of products — like adding varieties, new services like home delivery or credit services, new marketing ideas, new cost reduction ideas and many more.

Entrepreneurship

The process of developing a business plan, launching and running a business using innovation to meet customer needs and to make a profit is entrepreneurship.

Enterprise

An enterprise is a project or undertaking that is bold and fulfills a need of the society which no one has ever addressed.

Let us read the story of Sowmya. Her story will help us understand a little more about entrepreneurship.

The Story of Sowmya, the Entrepreneur

Sowmya grew up in a village in Karnataka. Her parents came to Bangalore in search of a better job. While growing up, Sowmya saw her parents working very hard. Her father started working in a small shop which

sold clothes and her mother started working as a cook in someone's house.

Sowmya wanted to support her family. She was now going to college and wanted to start making money. When she turned 18, Sowmya thought "What can I do, which will help me make more money and where people will keep buying from me again and again?" (*Need*) She noticed that the girls in her college cared about their health and did not want to eat chips and other unhealthy food (***Recognising opportunity***). She started making healthy snacks and sold them to her friends in college (***Idea and start of a business***).

Her friends loved it, because not only was snack healthy, it was also very tasty. She then started selling her tasty-healthy snacks to people in her area.

As the demand for her snacks increased, Sowmya asked her parents and friends to give her some money to buy a small machine which would help her in making more snacks. She started making 5 times the snacks. She started giving a small commission to her friends to sell these snacks in their own societies (***Growing the business***).

After 2 years, Sowmya now sells her snacks in every small shop.

She continued studying while doing the business and was able to pay her college fees from her own earning!

How do you think Sowmya identified an opportunity?

_____
_____
_____

Opportunities are everywhere. You need to look for them/spot them. Do you have any ideas/have you seen any opportunity in your surrounding that you too can use to start a business? Write your idea below.

_____
_____
_____
_____

Practical Exercise

The teacher will facilitate these activities and give additional feedback as needed.

Activity 1

Guess the entrepreneur

Materials required

Notebook, pen

Procedure

Form teams of 5 students each. So, if there are 30 students in class, there would be 6 teams of 5 students in each team and select a leader who will be responsible for running it. Each member in the group will do the following:

- Make a list of all people you see while coming to school and what they are doing.
- Make 2 lists — one of people working for themselves and one of people who work for others.
- Make a list of different kinds of businesses around you.
- Now think of all the items that you cannot buy in your neighbourhood and people have to go far to buy them.
- Do you see this as a possible opportunity for a good business idea?
- How will you innovatively fill this gap?
- Members of the group discuss their ideas within the group.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Business is a (an) _____ activity.
   - (a) social
   - (b) economic
   - (c) hazardous
   - (d) selling

2. What is the aim of entrepreneurship?
   - (a) Earn a profit
   - (b) Solve customers' need innovatively
   - (c) Both of the above
   - (d) None of the above

B. Short answer question

1. List three businesses seen around you. Share details of what the business does, and how they run it ?

C. Read the following statement and write "Yes" or "No" as to whether the person is an entrepreneur or not.

	Statement	Yes/No
1.	Ravi made tea for his friends in the office. Everyone liked the tea very much and told him that he is very good at making tea.	
2.	Savita, a house wife, needs extra money for her kids' tuition. She notices that in the afternoon, the children coming out of a nearby college look tired and hungry. She makes refreshing *Neembu Pani* and *samosas* and sells them to the students.	
3.	Rahul loves dogs. He plays with dogs of his friends' family. One day when they were going out-of-station, they asked Rahul to take care of their dog. Rahul thought that this was a good idea, "taking care of dogs when the owner is traveling". He started his own company which is like a "hotel for dogs". When the dog-owners travel, they leave their dogs at this hotel and pay the company money for each day they take care of the dog. Is Rahul an entrepreneur?	
4.	Monica noticed that her neighbours used to face a problem. They had to leave their young baby behind when they went for work. Monica started going to this house in the evening to take care of the baby for them. Her neighbours were very happy and used to give her chocolates for doing that.	

What have you learnt?

> **After completing this session, you will be able to**
> - demonstrate the knowledge of entrepreneurship.
> - identify the characteristics of an entrepreneur.

SESSION 2: ROLE OF ENTREPRENEURSHIP

If you were an entrepreneur, how do you think you will help your country? Countries which encourage entrepreneurship have grown fast. It is, therefore, important to broadly define the role and benefits of entrepreneurship.

Economic Development — Money in Circulation

As entrepreneurs create value by making available better and cheaper products and services for customers, the economy grows. As entrepreneurs grow their business, investors put money into their businesses and expect good returns. As more and more entrepreneurs create business opportunities, the economy grows.
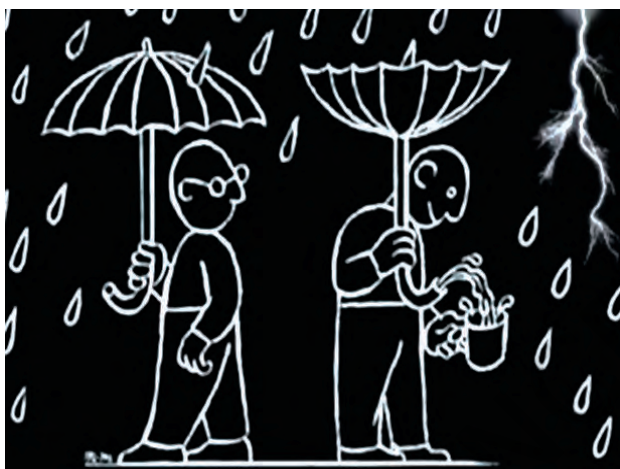
Social Development — Creation of Jobs

A business started by an entrepreneur is usually a very small business in the beginning. If it becomes successful and grows, the entrepreneur expands the business.

As the business grows, it needs more work to be done and so creates more jobs. Good quality jobs lead to more people earning money and having a good life.

Improved Standard of Living — More things available to live a comfortable life

When entrepreneurs sell products like a tractor, a mobile phone or a mobile service, it helps people live a more comfortable life. For example, a small village did not have good quality soap because of which the villagers used to fall sick. An entrepreneur started going to the city collected antibacterial soap from the city and sold it to the villages the people started using the soap for handwashing, is a result of which these uses less incidences of people falling sick.

Optimal Use of Resources

There are various natural resources present around us renewable and non-renewable. Entrepreneurs keep working to find the most optimal ways of using the resources to reduce costs and increase their profits.

More Benefits at Lower Prices Products and Services at Competitive Prices

As entrepreneurs compete in the market, prices of products come down. For example, a phone which used to cost at least Rs. 20,000 when phones were first launched can now be bought even for Rs 4,000.

Practical Exercise

The teacher will facilitate these activities and give additional feedback as needed.

Activity

A world without Entrepreneurs

Materials required
None

Procedure

- Form groups of 45 students in each group.
- Each group thinks about which entrepreneurs benefit or help us the most.
- Now imagine that this entrepreneur, and his business does not exist. How will my life get affected?
- Each group shares with the class, their example of which entrepreneur helps them the most and what will happen if she/he was not there.
- One volunteer student writes down the examples given by each group on the board.
- The class discusses the importance of entrepreneurs.

Check Your Progress

A. Short answer question

Answer the following questions in your own words.

1. Gulab lives in a small village in Rajasthan. She noticed that all the women in her village were good at making

paintings and handicraft product. She collected money and started a business. Gulab would help the women to get material from cities and support them in making latest designs. She would then arrange for these paintings and handicraft products to be sold in big cities. How do you think Gulab, is helping her society as an entrepreneur?

2. Give examples of three entrepreneurs you know who live around you. Write how they are helping your city?

What Have You Learnt?

After completing this session, you will be able to

- explain the importance of entrepreneur and its role in country's and society's growth.

GLOSSARY

Confidence: *quality of believing in oneself and not having fear of what will happen or what others would say*

Experimental: *someone who likes to try new things and learn from it to get better*

Grit: *a person's quality of not giving up and keep trying*

Hybrid business: *hybrid business is a mix of product and service business*

Patience: *a person's quality of not getting angry or emotional during stressful time and staying calm*

Positivity: *a person's quality of seeing the good in every situation and person*

Product business: *a business where a seller and buyer exchange a thing, which can be seen and touched, is called a product based business*

Service business: *a business where a seller a helps the buyer to finish some work, which cannot be seen or stored for example plumbing, teaching, hair dressing, etc., are is called as service based businesses*

SESSION 3: QUALITIES OF A SUCCESSFUL ENTREPRENEUR

In the last chapter, we learnt how entrepreneurship is different from wage employment. We also learnt different features of entrepreneurship. In this session, we will learn about qualities of a successful entrepreneur.

Can you think about business persons from whom you buy things? What are some qualities of these people? List all the qualities, with examples in your notebook.

	Who	Quality	Example
1.	Milk-man	Hard-working	Wakes up at 3:00 AM and comes to the customer's house at 5:00 AM to give fresh milk.
2.			
3.			
4.			
5.			

There is a thin line that distinguishes an entrepreneur from a traditional business person.

Ramu is *chai wala* selling tea near a busy bus stop. He earns a lot and makes a good profit. He is a traditional business man.

Now, Rani also started a tea stall on the road side. She decided to sell different flavours of tea, just like expensive tea parlours in the mall, at a reasonable price. Her clients vary from daily wage earners to actors and politicians because of her unique idea. She is an entrepreneur.

Now, let us read a story of another entrepreneur to understand all the important qualities of a successful entrepreneur, so that when you think about becoming an entrepreneur, you can practice these qualities.

Sushma, the Toy Maker

Sushma is a mother of two young kids. She saw some parents giving their children mobile phones to play with while others gave plastic toys. Both of these are bad for the kids and the environment.

She wanted her children to enjoy playing with toys which were good for their brain and did not cause health problems. She came up with the idea of making wooden toys, which are not only fun to play with, but also help kids learn as they play with them. She made a few toys and started sending pictures to her friends and family. They were excited to buy these new types of toys from her.

Her best friend told her that the toy she had bought had sharp edges and had hurt her child. Sushma immediately changed the design to soft edges. Very few people bought her products. She made huge efforts to persuade her customers to buy her toys, specifying the excellent qualities of her products.

She did not give up and tried to understand the buying pattern of parents as customers. Soon she realised that people prefer to buy toys for their kids from established and permanent shops. She made efforts to partner with different toy shops to sell her products. She also created a web site to sell her products online. After 2 years, the demand for her toys increased and soon she was selling her toys not only in India, but also in other parts of the world.

An entrepreneur needs to have the following set of qualities.

Patience

Entrepreneurship is not a one-day job. Success may not be achieved quickly and therefore, it is important for an entrepreneur to be patient in running the business. Sushma kept working for 2 years before success came her way.

Positivity

When a person starts a business, he/she may face lots of difficulties and failure. An entrepreneur has to think positively even when he/she takes a big risk. There may be losses at times but even then an entrepreneur should stay positive and continue to work hard towards their goal. For example, Sushma listened to her customers' complaints. She did not get upset and improved her product.

Hardworking, Never Giving Up and Perseverance

Every new business goes through failures and therefore, an entrepreneur needs to work hard till it becomes successful. It is necessary for an entrepreneur to continuously work hard towards his/her own and

company's goals. Sushma kept trying even when the toys were not selling.

Confidence

An entrepreneur needs to be very confident and take decisions about their business. An entrepreneur needs to communicate confidently with the customers. For example, Sushma was confident about the quality and effective use of her toys. This led to her success.

Open to Trial and Error

Entrepreneur needs to be open to new ideas and try them without fear of failure. She/he will have to use trial and error and experiment with different ideas till the business becomes successful. This allows the product or service to improve for the customer and helps the business grow. For example, when Sushma could not sell the product within her friends and family circle, she partnered with other shops.

Creativity and Innovation

An entrepreneur should be able to see a problem from different perspectives and come up with original and creative solutions. They should also be able to recognise an opportunity in a problem and find an innovative solution.

One must note here that a self-employed person may not be an entrepreneur if she/he does not have these qualities. An entrepreneur should be willing to take a calculated risk and is always open to new ideas to make his/her business grow. A person who has does not take risks, is not open to new ideas and is running the business only to earn a steady source of income is not an entrepreneur.

Practical Exercises

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

A successful interview

Procedure

- Form pairs of students. One student imagines him/herself to be a successful entrepreneur (maybe 10 years from now).
- The other student will act as an interviewer from a TV channel who will interview this entrepreneur.
- The interviewer asks questions given in the table below and note down the answers.
- One volunteer pair will present their questions and answers to the class.

Questions	Your Answer
What business do you do?	
Why did you start this business and not take up a job in a company?	
How did you come up with the business idea?	
Were you successful when you first started?	
What did you find most difficult?	
How did you overcome this difficulty?	
Have you faced any failures? If yes, what?	
What advice would you give to others who are trying to start their own business?	

Activity 2

Entrepreneurs near me

Procedure

Each student should visit businesses in their neighbourhood, talk to the owner and list their qualities that have helped them with their business. Fill the table given below.

Owner of the business	Qualities	How did it help the business?	Is this person an entrepreneur?

Check Your Progress

A. Short answer questions

1. Identify qualities of the following entrepreneurs. Also write why you think this person has this quality or the qualities.

   (a) Anil wanted to do something very different and something no one has thought of before. He decided to start a special travel services for old people/ senior citizens.

   (b) Rakesh loves playing outdoors. He used to spend his evenings with his friends, playing games. But, he had seen that many of his friends didn't like playing outdoors because they didn't feel safe. He decided to open a playground for children of all ages, with proper security. He found an unused playground, got permission to use it and asked his friends to help him clean it. He hired a security guard for the playground. He charged a small fee for people who wanted to play. Both parents and children liked his idea, and started playing there regularly. His business helped children who would not play outdoor before.

   (c) Radhika was a cook in a small restaurant in her area. She made enough money to support her husband and children. She decided to start her own food stall to sell Punjabi food. She would make special parathas. A few days after starting her business, the police came and told her that she was not allowed to run her stall in the area. Radhika did not give up. She started a Tiffin service through which she would deliver fresh food to people.

2. Do you think you have the qualities of an entrepreneur in you? If yes, give examples when you have shown these qualities.

3. Read the story of Sushma, the Toy Maker once again and fill in the boxes mentioning the various qualities that Sushma might have possessed as an entrepreneur

She was patient and did not give up.

What Have You Learnt?

After completing this session, you will be able to

- identify successful entrepreneurs around yourself.
- identify and describe the qualities of a successful entrepreneur.

SESSION 4: DISTINGUISHING CHARACTERISTICS OF ENTREPRENEURSHIP AND WAGE EMPLOYMENT

In the last session, we learnt that entrepreneurship means organising, developing and managing a business venture along with any of its risks in order to make profit. Entrepreneur takes risks to make a profit. Let us now try to understand the meaning of the word profit and risk before we understand the various characteristics of entrepreneurship.

Profit: M/s Ram Prasad owns a sweet shop in a remote village. He incurs a total cost of Rs 35 per kg of sweets and sells at a rate of Rs 42 per kg to customers. The amount of profit earned by Ram Prasad's sweet house amounts to Rs 7/kg, i.e., Rs 42–Rs 35 = Rs 7 per kg. The profit earned is the excess earning after deducting all expenses.

Risk: A situation where the result is not known and could lead to a loss. For example, when I am making 10 kg of sweets, I risk spending Rs 300/- on buying milk, sugar, *maida* and some other person may also start the same business in the same area and sell sweets at a lower price.

Entrepreneurship is not without risks but entrepreneurs are not afraid of taking calculated risks. Taking risks can lead to failure but failure is acceptable and entrepreneurs continue their course of action till they succeed.

Characteristics of Entrepreneurship

Let us now look at some of the distinguishing characteristics of entrepreneurship.

1. Ability to take up risks
2. Believe in hard work and discipline

3. Adpatable and flexible to achieve the goals of enhancing quality and customer satisfaction

4. Knowledge of the product and services and their need or demand in the market

5. Financial literacy and money management skills

6. Effective planning and execution.

Have you ever observed a sudden closure of a shop/store/business in your neighbourhood? Why did the business fail?

- Was he/she selling low quality goods/services?
- Was he/she selling products not required in the neighbourhood?
- Was the right opportunity not spotted?
- What was the risk he/she had taken?

_____

_____

_____

_____

_____

Wage Employment

In case of wage employment, there are always two parties. One is known as the employer and the other is the employee. The wage employment does not involve too much risk but entrepreneurship involves taking certain amount of calculated risks. However, the continuity of the service in case of wage employment depends on the terms and conditions laid down in the contract between the two parties and also sometimes the relationship between the employer and the employee.

Now, let us understand the difference between entrepreneurship and wage employment (working for someone to earn money). Let us compare a cook in a restaurant and a street food vendor.

Questions to think about	A Cook in a Restaurant	Street Food Vendor
1. How does the person make money through the activity?		
2. Is this person solving a community problem?		
3. Did this person sell something and make profit?		
4. Do they use the resources/ knowledge that they have to make most of the money?		
5. Do they use innovation and creativity to attract clients?		
6. Does the activity involve taking risk for earning money?		
7. Is this person an entrepreneur?		

As you can see above, the cook in a restaurant holds a job and is an employee of the restaurant, while the food stall vendor is an entrepreneur as s/he works for himself and runs a business because of the following things:

	Activities done by the person	Entrepreneurship	Employment
1.	Allows a person to make money	Yes	Yes
2.	Finding solutions for a community problem by himself/herself	Yes	No
3.	The job done by the person is decided by himself/herself	Yes	No
4.	Use personal knowledge and interest to make money for oneself	Yes	No
5.	Use innovation and creativity to attract clients	Yes	No
6.	Keep most of the money, i.e., profits made for a product/ service	Yes	No
7.	Takes risk to make profit	Yes	No

Benefits of entrepreneurship

The various benefits include the following:

- **Do what you are interested in**: Entrepreneurship allows you to start and do something you like using your hobbies and skills.

- **Work for yourself, and not for others**: As an entrepreneur, you can work for yourself and not for someone else. You can decide the kind of work you like to do and how you want to do it.

- **Make profits for yourself**: As an entrepreneur, you can decide how much money you want to earn and how you want to earn it.

- **More risk, more profit**: Even though there are risks in entrepreneurship, it allows you to decide how much risk you want to take. Usually, the larger the risk, the bigger could be the profit!

Practical Exercises

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

Characteristics of enterprise

Procedure

- Create groups of 5 students each. So if there are 30 students in class, there would be 6 groups of 5 students in each group and select a leader who can run the activity.
- Each group should discuss the following information (in table) and fill it up with either "Yes" or "No".
- One group can volunteer to explain to the class their answers. The other groups give feedback if correct or wrong and also check their answer against the right one to make sure it is right.

Type of Business	Is it making money?	Does it sell something for profit?	Do they use what they have or know best?	Does it take a risk?
Stationery Shop				
Local Milk Dairy				
Plumbing Shop				

> ### Activity 2
>
> Advantages of entrepreneurship over wage employment
>
> **Procedure**
>
> - Create groups of 5 students each. So if there are 30 students in class, there would be 6 groups of 5 students in each group and select a leader.
> - Each group prepares charts showing advantages of entrepreneurship over wage employment.
> - Two groups volunteer to present their charts to the class. Other teams give feedback on the charts presented and can ask questions after the presentation is made.

Check Your Progress

A. Fill in the blanks

1. State whether the person engaged in the activity mentioned below is an Entrepreneur or an Employee

    (a) Rahul starts a shop to sell Chaat and special Paani Puri. He is an _____

    (b) Shahid becomes the manager of a dealership selling food products. He is an _____

    (c) Ritu leaves the company she worked for and starts catering food for marriage programmes. She is an _____.

B. Short answer questions

1. List any four characteristics of entrepreneurship.

2. List any two characteristics of wage employment.

3. Name any one factor that is common to both entrepreneurship and wage employment on contract basis.

What have you learnt?

> **After completing this session, you will be able to**
>
> - describe the difference between entrepreneurship and wage employment.
> - identify unique features of entrepreneurship versus wage employment.

SESSION 5: TYPES OF BUSINESS ACTIVITIES

So far, we learnt who an entrepreneur is, and the meaning of entrepreneurship. We also learnt about the

unique features of an entrepreneurship. In this session, we will learn about different types of business activities. Let us read the story of Rahul to understand different business activities.

Rahul, the cricketer

Rahul loved cricket! His favorite player was Sachin Tendulkar and he never missed a match. He went for daily practice with his friends in the park. He was an all-rounder, like M.S. Dhoni, but he wanted to be a great batsman.

He started improving in his game and at the age of 16, he played for the state team. His team lost, but he was sure that he would play for India one day. He was a great player and everyone in his village came to him for advice on cricket.

Rahul kept trying but did not get to join any team. Perhaps Rahul could have thought of other options to stay in touch with his passion for cricket.

Here are some of the options he could have explored. Fill the table with your friends

	Start a Cricket Coaching Centre	Start a Sports Shop	Sports Academy
Is this Entrepreneurship?			
What do you think he will be doing (kind of work) in each of the options?			

Types of business activities

From the story of Rahul, we understood that there can be three types of business activities:
- Product business
- Service business
- Hybrid business

Product business

A business where a seller and buyer exchange an item, which can be seen and touched, is called a product-based business. For example, a Sports Shop.

Service business

A business where a seller helps the buyer to finish some work. For example, a cricket coaching center.

Hybrid business

A hybrid is the one where the business is doing both selling product and selling services. For example, Rahul starting a sports academy for coaching and selling sports equipment. We also see this in restaurants where the food itself is the product sold and the catering is the service provided.

Practical Exercise

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

Product and Services

Procedure

- The class is to be divided into 3 teams—product business team, service business team and hybrid business team.
- Each team will get about 15 mins to think of as many examples of product/service/hybrid based businesses. Students will have to think of different types of businesses, rather than just different companies with the same type of business. Fill the following table. The team with most number of examples wins.

Type of Business	Product Business	Service Business	Hybrid Business
Large Businesses	1. 2. 3.	1. 2. 3.	1. 2. 3.
Local Community Businesses	1. Tea Stall 2. 3.	1. Hair-cut, Barber Shop 2. 3.	1. Petrol Pump 2. 3.

Check Your Progress

What have you learnt?

After completing this session, you will be able to

- identify successful entrepreneurs around yourself.
- identify and describe qualities of a successful entrepreneur.

SESSION 6: PRODUCT, SERVICE AND HYBRID BUSINESSES

In this session, we will understand the difference between a product-based and service-based business activity. Let us take Rahul's example from the previous session and write yes or no in the following table:

	Cricket Coaching	Sports Shop
1. Can be seen and touched		
2. Can be stored		
3. Can be made somewhere and then transported		
4. The customer gets exactly the same thing most of the time.		

Therefore, the key differences between product and service business activities can be summarised as follows.

		Product Business	Service Business
1.	Seen and touched	Product can be seen and touched. Customer pays for physical exchange of things.	Service cannot be seen or touched. Customer here pays for an experience.
2.	Stored	A product can be made and stored in a shop or a warehouse (usually).	A service, for example, cutting hair, cannot be stored. Service is provided when a customer asks for it.
3.	Made and transported	A product can be either made at home or in a factory. It can then be transported to different places where shopkeepers sell it.	A service cannot be made or transported. It is given to the customer at the time of delivery.
4.	Same quantity and quality	The quality and quantity of the product will be the same every time.	The quality and quantity of a service can be different at different times.

In the last session, we also learnt about another type of business hybrid which is a mix of product and service businesses.

Read the following case-studies and identify what kind of businesses are these

Sana, the Jewellery Expert

Sana wears beautiful new earrings every day which she makes by herself. She finds the designs online, buys cheap materials and makes them at home with the help of her sister. Her friends at the college were amazed and placed orders for similar earrings.

Harish, the *Dabba-wala*

Harish lives alone in Delhi. He left his house in Meerut to work in a big company. He used to make his own lunch and take a *dabba* everyday to office. He had many bachelor friends who depended on the office canteen for lunch. They loved to eat the food he brought. This gave him an idea to make and deliver healthy, home-made food to different offices. He knew there would be a demand for his food, as there were many boys and girls from other cities working in the area who had no time to cook food on their own.

Pragya, the Delivery Girl

Pragya's parents bought her a bike on her birthday last year. She used it to go to her college and to meet her friends. Since her friends usually had to take a bus for transport, in case of an emergency, they would sometimes ask her to drop them. This gave her an idea of starting a quick, goods-delivery service using her bike! In her free time, she started the delivery service for people in her area. She became famous! She later employed five people to work in her delivery company.

Classify the three entrepreneurs, based on the kind of business they do and give reasons.

Sana, the Jewellery Expert	Pragya, the Delivery Girl	Harish, the *Dabba-wala*

Types of product-based business

In the above examples, we saw that there are three types of business activities—Product, Service and Hybrid. Now we will learn about a product business.

Let us go back to Sana's example, who made her own jewellery. **Now imagine if instead of making her own earrings, if Sana was buying earrings from a whole-sale market and selling it to people. Would it still be a product business?**

Yes, it will be! There are two types of product-based businesses

Manufacturing businesses

These are the businesses that make a product and sell it. Products are usually made in factories. In case

of Sana, she was manufacturing or making her own products. Factories need funds (money) to be set up. Sana could make her products on a small budget. Factories have many people working in them. Sana made her products with the help of her sister.

Trade businesses

These businesses buy and sell a product. They also transport the product from the factory to warehouses and then finally to shops near the customers. Examples of these business include wholesalers, distributors and retail shops.

Practical Exercise

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

Business activities around us

Materials required

Pens, chart paper, colours, etc.

Procedure

- Divide the class into 3 groups of students.
- Each group needs to make a list of business ideas which are either Product,Service or Hybrid based. Each group will prepare a poster by either making a drawing or using newspaper cut-outs for the kinds of business they have selected.
- Each team will present their posters to others.

Check Your Progress

A. Fill in the blanks

1. Write P- Product, S- Service and H- Hybrid for the following businesses.
   (a) Ice-cream seller: _____
   (b) Restaurant/Cafeteria Owner: _____
   (c) Car-driving School owner: _____

B. Short answer questions

1. What are the key differences between product- and service-based businesses?

2. If you had a choice to start a business of your own, which business will you start (include in your reply the

product or service that you would like to take up)? Why do you want to start this type of business?

3. What is the meaning of manufacturing and trading based business?

What have you learnt?

After completing this session, you will be able to

- identify difference between product and service business activities.
- classify business examples as product, service and hybrid businesses.
- identify different types of product-based businesses.

SESSION 7: ENTREPRENEURSHIP DEVELOPMENT PROCESS

Entrepreneurship development is the process of improving the skills and knowledge of entrepreneurs. It can take place through formal and informal learning system. In the formal learning system, training programmes are conducted to bring about awareness, knowledge and skills related to entrepreneurship. In this session, you will learn about the entrepreneurship development process through examples of successful entrepreneurs. It will help you to understand the qualities of entrepreneurs and then you can also make an assessment of whether you also possess those qualities. So let us begin with a story.

Prem Ganapathy, the *Dosawala*

Prem Ganapathy is also known as the *Dosawala,* is the owner of the famous food chain 'Dosa Plaza'. 'Dosa Plaza' currently has 26 shops. It has 150 employees and makes approximately Rs 5 crore every year.

Prem's story of struggle and success

When he came to Mumbai, Prem had no friends and did not know the language. He struggled in

Mumbai for many years. He washed plates and cups, cleaned tables and served tea at different shops. He even started a business with someone during this time, but the partnership failed.

Prem had saved some money and wanted to start a Dosa shop. He asked his brother and uncle for a small loan to set up a small Dosa stall near a railway station. At the railway station there lot of people came but did not have many options for tasty food.

His customers praised his food and gradually he had customers from far-off places too. As he spoke to his customers, he found out that his customers like different kinds of dosas. He had worked in a Chinese kitchen earlier and knew how to make tasty chowmein and other Chinese items. This gave him an idea to invent new types of dosas with Chinese flavours like American Chopsuey, Paneer chilly, Spring roll dosa, etc. The 108 types of Dosas on his menu got him a lot of publicity.

Then he took the biggest risk of his life and opened a new shop near a station and named it as Dosa Plaza. Dosa Plaza is one of the most famous Dosa shops in Mumbai. From this story, what do you think are the different steps of starting a business?
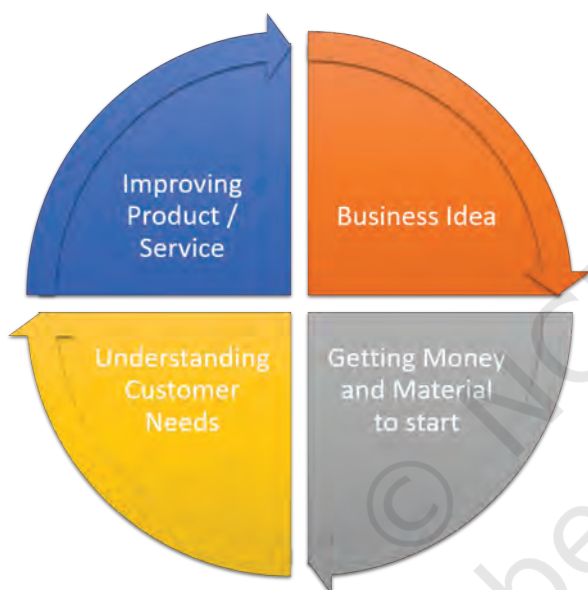
Steps of starting a business

Idea	The first step is to come up with a business idea. A business idea could be based on (a) Something you are interested in doing (For example, making Dosa) (b) A need you see in the market (For example, Tasty food next to the station)
Getting money and material	Once you have the idea, you can start on a small scale with some money which will help you in buying basic material.
Understanding customer needs	Once you start selling, you will find out what your customer likes and wants. You will also find out what your customer does not like during this stage.
Improving Product/service	You can use this knowledge of what your customer likes and does not like to improve your product. (For example, Prem's customers liked variety)

Practical Exercise

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity

Business on Make-and-Sell

Materials Required

Scrap material like old newspapers, tins, glasses, etc.

Procedure

- Form groups of 4 or 5 people in each group.

- Each group comes up with an idea to make a product using scrap material. The product will be made for other students in class as the customer and should be useful for them. Follow the four steps of starting a business listed above.

- They make the product using scrap material they get from home, etc. If time is less, students can make the product after class and bring to the next session.

- After the teams have made the product, each team will come and present how they used the 4 steps to come up with the idea and build the product.

- They will then try and sell this product to everyone in the class.

- The rest of the teams will give feedback and say what they like and what they do not like in the product. They will also say how much money they are willing to pay for the product (vs. what the selling team is asking)

- At the end of this, each student writes answers to the following questions in their notebook.

- As a seller, what were you thinking when you decided about the business idea? Why did you select this idea for business?

- Did you make any changes to your idea after listening to your friends? If yes, what changes did you make?

- As a buyer, did you want to buy the product your friends were selling to you? If yes, which product and why?

- As a seller, did you think your friends would pay you money for your business idea? Why?

- As a buyer, did you want to pay money for the things made by your friends? Why?

- What did you learn about business through this activity?

Check Your Progress

A. Match the following

Column A	Column B
1. Business idea	A. Arun goes to the bank to get loan for the shop
2. Get money	B. Arun and Shyam are thinking about selling tea in front of their school
3. Customer needs	C. Arun and Shyam decide to sell tea along with free biscuits
4. Attract customers	D. Shyam takes his tea samples to customers to understand their taste preferences

B. Short answer questions

1. My customers are not buying my food product because they do not like the flavour of it. What step of the business should I follow next?

2. Write the four steps of entrepreneurship development. Give one example.

What have you learnt?

After completing this session, you will be able to

- identify different steps of starting a business.
- identify the characteristics of business.

Green Skills

INTRODUCTION

The environment around us affects all aspects of our life; and all our day-to-day activities also affect the environment. Those who live in cities get their food supply from surrounding villages and in turn, are dependent on forests, grasslands, rivers, seashores, for resources, such as water, fuel wood, fodder, etc. We use resources from which food is made and we depend on the community of living plants and animals, which form a web of life. Everything around us forms our environment and our lives depend on the flora and fauna around us. Similarly, our school environment comprises the physical and the socio-cultural environment. The physical environment includes the school building and the classrooms, library, laboratories corridors, kitchen, toilets, garden and also the playground. The socio-cultural environment is manifested by the school, with climate teaching, by the teachers, student activities, inclusivity, attitude towards learning, social behaviour, discipline, respect for each other's caste, religion and creed, achievement of students, etc.

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Over the years, with economic development, there has been an increase in environmental pollution. For example, with the advent of high input agriculture, we could grow more food by using fertilisers and pesticides and using hybrid crops, but it also resulted in the ill effects of overuse of chemicals, which led to soil and environmental degradation. This threatens the stability of the environment. We need to plan the maintenance of the areas in a sustainable manner so that we can enjoy the good environment created by us;it may be sustainable agriculture, developing eco-fashion design, manufacturing of solar panels, or designing environmentally sustainable homes.

SESSION 1: SOCIETY AND ENVIRONMENT

People live together in villages, cities, states and countries,thus forming a 'Society'. Society interacts with the environment, and changes it at the same time. The interaction of the society with the environment sometimes affects the ecological balance in the environment. With the increase in population and economic activities, people's interference with nature has started destroying the environment. The industrial development and intensive agriculture that provides the goods for our increasingly consumer-oriented society uses up large amounts of natural resources, such as water, minerals, petroleum products, wood, etc.

Natural resources

A resource can be defined as any natural or artificial substance, energy or organism, which is used by human being for its welfare. Ever since the earth was inhabited, humans and other life forms have depended on things that exist freely in nature to survive. These things include water, land, soils, rocks, forests, animals, fossil fuels and minerals. They are called natural resources as they are the basis of life on earth. We use these resources to survive and also to function properly. Natural resources can be consumed directly or indirectly. For instance, humans depend directly on forests for food, biomass, health, recreation and increased living comfort.

The Constitution of India contains specific provisions for the protection and improvement of environmental quality. Article 48-A of the Constitution says that "the state shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country."

Indirectly forests helps in regulating climate, preventing flood, storm protection and nutrient cycling. The resources, which have been developed by human beings during the growth of civilisation, are called artificial resources. For example, biogas, thermal electricity, plastics, etc.

Natural resources come in many forms. It may be a solid, liquid or gas. It may also be organic or inorganic. It may also be metallic or non-metallic.

(i) **Land Resources:** Human beings thus, use land as a resource for production as well as residence and recreation. It is a finite resource which is subject to agricultural and non-agricultural uses, such as infrastructure development.

(ii) **Forest Resources:** A forest is a natural, self-sustaining community characterised by vertical structure created by presence of trees. Wood is used for making furniture, tool-handles, railway sleepers, matches, ploughs, bridges, boats, etc. and as a source of energy for cooking purpose and for keeping warm. Tannins, gums, drugs, spices, insecticides, waxes, honey, horns, musk, ivory, hides, etc. are all provided by the flora and fauna of forests.

(iii) **Water Resources:** Water covers about three-quarters of Earth's surface and is a necessary element for life. Water resources include rivers, lakes, oceans, and underground aquifers, etc. Water is a vital resource in agriculture, industrial, household and recreational and environmental activities.

(iv) **Mineral Resources:** A mineral deposit is a concentration of naturally occurring solid, liquid, or gaseous material, in or on the Earth's crust in such form and amount that its extraction and its conversion into useful materials or items are profitable now or may be so in the future. Mineral resources are non-renewable and include metals (e.g., iron, copper, and aluminium), and non-metals (e.g., salt, gypsum, clay, sand, phosphates). Some minerals consist of a single

element, such as gold, silver, diamond (carbon), and sulphur.

(v) Food Resources: Resources that are used as food, or provide food for organisms are called food resources. Plants serve as food resources for herbivores and omnivores. Animals and birds are the source of food for many organisms who are carnivores and omnivores. Agriculture is the main source of plant food resource for human beings.

(vi) Energy Resources: An energy resource is something that can produce heat, power life, move objects, or produce electricity. There are 5 fundamental sources of energy: (i) Nuclear fusion in the Sun (solar energy), (ii) Gravity generated by the Earth and Moon, (iii) Nuclear fission reactions, (iv) Energy in the interior of the Earth, and (v) Energy stored in chemical bonds. Most of the energy we use today come from fossil fuels (stored solar energy). But fossils fuels have a disadvantage in that they are non-renewable on a human time scale, and causes other potentially harmful effects on the environment.

Natural resources fall under the following main categories:

(a) Inexhaustible Resources: The resources which cannot be exhausted by human consumption are called inexhaustible resources. These include energy sources like solar radiation, wind power, water power and tidal power, etc.

(b) Exhaustible Resources: There are some resources, which are available in limited quantities and are going to be exhausted as a result of continuous use. For example, the stock of coal in the earth is limited and one day there will be no more coal available for our use, if we keep on using it excessively.

(c) Renewable Resources: Renewable resources are those that are constantly available (like water) or can be reasonably replaced or recovered, like vegetative lands (Table 5.1). Even though some renewable resources can
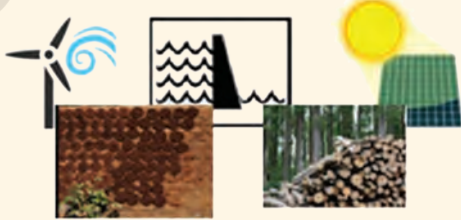
be replaced, they may take many years to form and that does not make them renewable.

Some of the exhaustible resources are naturally regenerated after consumption and are known as renewable resources. e.g., Forest trees and plants that make a forest may be destroyed but new ones grow in their place. But if forest is totally cut down to get land for construction of buildings, it is lost forever.

Renewable energy systems use resources that are constantly replaced and are usually less polluting. Examples include hydropower, solar, wind, and geothermal (energy from the heat inside the earth).

(d) Non-renewable Resources: Non-renewable resources are those that cannot easily be replaced once they are destroyed (Table 5.1). For example, fossil fuels. Minerals are also non-renewable because even though they form naturally in a process called the rock cycle, it can take thousands of years, making it non-renewable. Non-renewable resources can be called inorganic resources if they come from non-living things. For example, minerals, wind, land, soil and rocks.

Table 5.1: Non-renewable and Renewable Resources

Non-renewable Resources	Renewable Resources
Coal Coal is one of the cheapest sources of fuel.It is used in power houses, factories and houses for cooking and heating.	**Water** Only about 2.5 % of water on earth is fresh water. Energy from rivers is used to make electricity. Energy produced by tides in sea and oceans can also be converted into electricity.
Petroleum It includes petrol, diesel and mineral oils. It is used to run motor vehicles, furnaces and power-houses.	**Sun** Sun's energy can be used to generate electricity. These are used in calculators, street lamps, and even in room heaters and water heaters.

LPG Liquefied petroleum gas (LPG) is made from petroleum gas. LPG is used for cooking and also for running vehicles.	**Wind** The energy from the force of the wind is wind energy. This energy can be used for work as grinding grain, pumping water, etc. This energy can also be converted to electricity.
Natural Gas It is formed by decomposition of dead animals and plants that are buried under lakes and oceans. It is found above the oil in the oil wells. Compressed natural gas (CNG) is used for running vehicles.	**Biomass** Energy can be produced by wastes from plants and animals. It can be used for any heating purpose, such as cooking. It can also be used to produce electricity and heat.
Nuclear Plants Nuclear energy is made available to us with the help of nuclear power plants. Nuclear energy is becoming a common source of electricity throughout the world. It has the danger of causing great harm in case of an accident.	**Soil** Nutrients in the soil helps plants grow. Soil is used to provide shelter. Soil quality gets damaged due to addition to harmful chemicals, land pollution, construction activities, and cutting down of trees.
Minerals The earth contains minerals like gold, bauxite, mica, iron-ore and many others. They are reducing as larger and deeper mines are being dug to obtain these minerals. Mining these minerals causes damage to the earth.	**Forests** Forests are necessary to preserve ecology. They play an important role in providing clean air and attracting rain clouds. They also provide the wood, fruits, and plant products which have medicinal value.

Traditional societies had a small population and required less resources. They could preserve their biodiversity as a life supporting resource. But today, with the increasing consumerism and affluent societies, resources are getting rapidly depleted, even to the extent of leading to the irrecoverable loss due to extinction of several plant and animal species. Some of the human activities, which cause damage to the environment are over exploitation of resources, pollution, deforestation, mining, destruction of natural habitats, construction, etc. Let us now discuss how some of these activities are damaging our earth and environment.

(i) **Overexploitation**: This results when harvesting of resources exceeds their reproduction or replenishment. It means that when we exploit the species faster than the natural populations can recover, then it may result in extinction of the species, thus affecting directly or indirectly

the ecological cycle and our environment. For example, removal of wild medicinal plants, excessive grazing of pastures by animals, destruction of forests, and water aquifers, overfishing and over hunting, results in overexploitation of forests and natural habitats.

(ii) **Mining:** Mines are dug below the earth's surface to get ores. The ores are then refined to extract the valuable elements, such as metals, gems, minerals, etc. Some of the environmental impacts of mining include erosion, formation of sinkholes, loss of biodiversity, and contamination of soil, groundwater and surface water by chemicals from the mining processes.

(iii) **Deforestation:** It is the clearance of a forest or stand of trees where the land is converted to a non-forest use, such as agriculture and construction of houses. It results in loss of habitat for many plants and animals living in the forest. It may also lead to extinction of plant and animal species.

(iv) **Pollution:** This word is derived from the Latin word "*polluere*" meaning "to soil" or "defile (contaminate)". Pollution is caused by pollutants, which may be solid, liquid or gaseous in nature. Pollution is the effect of undesirable changes in our surroundings that have harmful effects on plants, animals and human beings. Pollutants are produced due to human activity, which have a detrimental effect on our environment. For example, factories consume a lot of water and electricity and release harmful chemicals in air, land and water, thus contaminating the atmosphere. Water pollution caused by factories and other industries can be the most serious problem. They also pollute the air through fossil fuel emissions. These emissions include carbon dioxide, methane, and nitrous oxide, which are harmful to the living beings.

Pollutants are of two types, as described in Table 5.2.

Table 5.2: Pollutants

Pollutants that can decompose	Pollutants that cannot decompose
Pollutants that break down into simpler, harmless substances naturally (by the action of moisture and bacteria) are called biodegradable pollutants	Pollutants which cannot be broken down into simpler and harmless substances are called non-biodegradable pollutants. The harmful effect caused by these pollutants will be there for hundreds of years.
Examples: vegetable waste, sewage waste, paper, wood, cattle dung, agricultural waste from organic farms, etc.	Examples: plastics, insecticides, pesticides, chemicals like mercury or lead, aluminium, glass, etc.

Some of the other factors responsible for polluting the environment are as follows:

- Exhaust fumes released from vehicle pollutes the air.
- Excessive use of chemicals in agriculture (like insecticides and fertilisers) affect the alkailinity of the soil or the soil pH. It adversely affects the health of microorganisms and other organisms in the soil.
- Plastic waste like bottles, bags, etc., thrown on land and sea pollutes the water and destroys the flora and fauna.
- Dangerous gases (cholorofluorocarbons or CFCs, methane, carbon dioxide, etc.) released into the air.

The various types of pollution are summarised in Table 5.3.

Table 5.3: Types of Pollution

	Land Pollution	Water Pollution	Air Pollution
What it is?	• Damage to the land because of harmful substances is known as land pollution.	• Adding harmful substances and disease causing bacteria and other microorganisms to rivers, lakes, and oceans results in water pollution.	• Addition of harmful gases and particles in air results in air pollution.

	Land Pollution	**Water Pollution**	**Air Pollution**
What happens because of this pollution?	• Diseases, such as dysentery, cholera and typhoid • Less land is available for use of forests, farms or homes	• Diseases, such as dysentery, diarrhoea, jaundice, typhoid, etc. • Local earnings, like tourism, fishing, etc. are adversely affected. • Less drinking water	• Heart and breathing problems and cancers. • Climate change, droughts, famines and floods
Why does it happen?	• Cutting down forests • Harmful pesticides and fertilisers • Mining and heavy construction • Release of sewage, toilet waste, waste from houses/factories, and chemical waste	• Throwing waste in water • Leakage from sewer lines • Release of waste water from houses, farms and factories • Accidental oil leakage from ships	• Burning of fuels • Smoke from traffic • Burning waste and remains of crops • Pesticides and fertilisers • Smoke from factories • Dust from construction
How to prevent it?	• Reduce waste • Segregate (separate) waste products • Plant trees • Adopt natural and organic farming methods • Use biodegradable items	• Do not throw waste into water bodies • Do not throw chemicals, medicines, oils, etc., in drains • Avoid using pesticides and fertilisers • Ensure proper treatment of sewage and factory waste • Use water wisely	• Use renewable sources of energy • Avoid polluting vehicles • Stop others from burning waste and left-over crops • Avoid pesticides and fertilisers which release harmful gases

If we separate all our waste before throwing it away, it will help us manage the non-biodegradable pollutants in a better manner. For example, if you keep all your vegetable waste covered in soil for some weeks, it will make the soil fertile and you will have less waste to throw away. Also harmful wastes can be separated from water before it mixes into our drinking water.

Climate change

Have you ever sat in a car or bus which has been parked in an open area under the sun, with windows

closed for a long time? Have you felt that it is much hotter inside a closed vehicle because the heated air is blocked inside? Similarly, the earth is becoming hotter because of burning fossil fuels (coal, petrol, diesel, etc.). These gases trap and prevent the earth's heat from escaping, leading to a global warming. This is called the "greenhouse effect".

Forests are the main mechanism for the conversion of carbon dioxide into carbon and oxygen. The loss of forest cover, coupled with the increasing release of carbon dioxide and other gases through industrialization contributes to the 'greenhouse effect'. Some greenhouse gases occur naturally and enter the atmosphere as a result of both natural processes (such as decomposition of organic matter) and human activity (such as burning fossil fuels and agriculture).

Greenhouse gases that occur both naturally and from human activities include water vapour, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and ozone (O_3). Other greenhouse gases have essentially no natural sources, but are the side products of industrial processes or manufactured for human purposes, such as cleaning agents, refrigerants, and electrical insulators. These include the fluorinated gases: chlorofluorocarbons (CFCs), hydro chlorofluorocarbons (HCFCs), hydrofluorocarbons (HCFCs). This greenhouse effect causes snow to melt very fast.

Carbon dioxide emissions into the atmosphere from burning oil, coal and gas for energy use is a serious problem as it is harmful to the environment. Carbon dioxide in the atmosphere has increased by 31% since pre-industrial times, causing more heat to be trapped in the lower atmosphere. As a result, there are frequent floods and changes in climate as well as damage to crops and animal life.

Harmful radiation

You might be knowing that the atmosphere protects us from harmful radiation from the sun. This is done by a layer all around the earth, in the atmosphere, called the 'Ozone Layer'. It is made of a gas called 'Ozone'. This

layer in the atmosphere protects us from the harmful radiation.

Cleaning chemicals, coolants in refrigerators and air-conditioners, etc., release ozone depleting substances, such as chlorofluorocarbons in the atmosphere. These destroy the ozone in the atmosphere, making 'holes' in the ozone layer. The harmful radiation comes in through these 'holes' and cause increased incidence of health disorders, such as skin cancer.

Natural disasters

Natural disasters include floods, earthquakes, landslides, storms, etc. Our actions in exploiting natural resources for building structures, such as large dams and buidlings sometimes aggravates the impact of natural calamities and disasters.

Saving the environment: What can you do?

To save our environment, we need to educate people. Education is important, as it gives people the knowledge and skills that they need to perform. Educating people about the environment, through the environment and for the environment will enlighten them in utilizing their knowledge and skills for saving the environment as responsible citizens.

(i) Learning about the environment: Learning about the environment focuses mainly on acquisition of knowledge and understanding of our surroundings and related issues.

(ii) Learning through the environment: Learning through the environment refers to the processes of learning while being engaged with environment inside and outside the classroom. It focuses on learning process, such as observation, hands-on experience, learning-by-doing, problem-solving through an exposure to the environment and learning. The direct contact with the environment provides the relevant context for acquiring knowledge, skills, aesthetic appreciation and practical experience to learning. Environment damage can be minimised by developing the skills

and knowledge required for efficient resource utilisation, green processes and technologies and integrating these into our businesses and daily activities.

(iii) Learning for the environment: Learning for the environment aims at the development of an informed response and responsibility towards the environment.

RE DUCE USE CYCLE

Reduce, Reuse, Recycle

There are three Rs which you can apply for saving the environment – Reduce, Reuse and Recycle. It is a concept of the modern waste management.

Reduce: Do not use what you do not need. If we reduce at source, there is a lesser chance of waste generation and the pressure on our already stretched natural resources is reduced. On an individual level we can reduce the use of unnecessary items while shopping, buy items with minimal packaging, avoid buying disposable items and also avoid asking for plastic carry bags. Use your own reusable cloth or jute bags instead of plastic bags.

Reuse: Reuse the materials for other purposes, such as making pillow covers or rags out of used shirts or ladies suits.

Recycling: Recycling is reusing some components of the waste that may have some economic value. Recycling has readily visible benefits, such as conservation of resources reduction in energy used during manufacture and reducing pollution levels. Some materials, such as aluminum and steel can be recycled many times. Metal, paper, glass and plastics are recyclable. Plastic items are recycled into new plastic products. Kitchen wet waste can be utilised to make compost that can be used as an organic fertiliser. To do this every house should segregate the waste into wet and dry garbage. Wet garbage includes most kitchen wastes, which can be used for preparing vermicompost. Most dry garbage is recyclable. Several technological breakthroughs have recently been made to recover material from industrial waste. Non-toxic solid waste should be properly segregated and disposed of in landfills that are

properly sealed to avoid leakage and contamination of surrounding land and groundwater.

Let us now see some examples of 3 Rs (Table 5.4).

Table 5.4: Examples of Reduce, Reuse and Recycle

Reduce: Use less things	Reuse: Use things for longer time	Recycle: Use things in new or different ways
Paper for each notebook means cutting down of a tree. Do not leave too much spaces, while writing the text. Reduce the wastage of paper.	Use both sides of paper for writing. Give your old books and notebooks to someone who can use them. In this way, you will promote reuse of paper.	Paper is recycled into making paper again. It is also used to make *papier mache*, which is a composite material consisting of paper pieces or pulp which is sometimes reinforced with textiles, bound with an adhesive, such as glue, starch, or wallpaper paste.

Actions for saving the environment

Some actions that you can take for yourself and encourage your friends, family and neighbours to take are shown in Table 5.5.

Table 5.5: Actions for Saving the Environment

	Avoid	Prefer
Air pollution	Burning materials, for example burning wheat or rice straw in agricultural field	Using natural ventilation or fans in place of airconditioners
Energy use	Leaving electrical lights or appliances on, when not required	Using public transport buses and cycles (instead of cars), using solar or wind energy
Water pollution	Throwing waste in rivers and lakes	Using recycled water or water harvested through rains for watering garden plants
Waste	Using plastic bags	Segregating waste before throwing, so that the biodegradable waste can be harvested
Chemicals in food	Using chemical pesticides or fertilisers	Organic (natural and chemical free) food to promote organic farming
Forest Plants	Over-use of paper should be avoided	Reusing paper for making paper based products
Water	Over-use of water should be avoided	Reducing water use during bathing by using water filled in a bucket instead of shower

Practical Exercises

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

Factors influencing the environment

Materials required

Pen and Notebook

Procedure

- Form groups of three students.
- Based on what you learnt about the environment and how different things or actions are effecting the environment, make a list of all factors (things or actions) that affect the environment.
- Think about all the articles you use daily that are made from plastic and answer the following questions
  (a) How plastic is made?
  (b) What are those plastic articles you usually use?
  (c) What effects does plastic have on our environment?
  (d) How can you reduce the amount of plastic you use?
  (e) What happens to plastic when you throw it away?
- Discuss these factors in detail. One volunteer group explains their list to the rest of the class who give feedback.

Activity 2

Steps you can take to save the environment

Materials required

Pen, Notebook

Procedure

- Use same groups as above.
- Think about your day from the time you wake up until the time you sleep. In this time, what steps can you take to help save the environment?
- Write a note on the actions that you would take at home or at school to do the following activities:
  (a) Collecting waste paper and reusing what is reusable (for crafts, papiermache, making rough books, etc.)
  (b) Encouraging use of both sides of paper.
  (c) Discouraging wastage and casual use of paper, pencils, etc.
  (d) Proper use of notebooks and not tearing out pages.
  (e) Discouraging use of throw away pens and encouraging use of refillable items.
  (f) Making rough pads with blank sheets from old notebooks.

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What are some of the environmental changes caused due to modern methods of agriculture?
   (a) Chemical pollution due to fertilisers
   (b) Improvement in the environment
   (c) Lower air pollution due to crops
   (d) Decrease in forest areas

2. How can we conserve our health and environment? (Choose all the correct options)
   (a) Grow organic crops
   (b) Use natural fertilisers
   (c) Manage waste water
   (d) Use more air conditioning

3. A steel factory burns firewood and charcoal for heating and melting the steel? What are the possible effects on the environment? (Choose all the correct options)
   (a) Increase in global temperature
   (b) Decrease in global temperature
   (c) Increase in air pollution
   (d) Decrease in air pollution

B. Short answer questions

1. What are the five sources of energy available to us? Give two examples of each source?

2. What are the sources of pollution?

3. Classify the following under the three respective categories of natural resources:

Air, iron, sand, petroleum, wind, clay, fish, forest, gold, pearls.

Inexhaustible	Renewable	Non- renewable

What have you learnt?

After completing this session, you will be able to
- describe the relation between society and environment.
- identify common environmental problems.

SESSION 2: CONSERVING NATURAL RESOURCES

In this session, you will learn about the actions that we can take to conserve natural resources. Conservation is the proper management of a natural resource to prevent its exploitation, destruction or degradation. Conservation is the sum total of activities, which can derive benefits from natural resources but at the same time prevent excessive use, which may lead to destruction or degradation. It means using them more efficiently and less wastefully.

As a first step, we can conduct the resource audit to examine the consumption of the resources and accordingly take measures to conserve them. For example, for an energy use audit, we can examine the use of the air conditioning system, ventilation system, light system and entry of sunlight into the room or the building. We can plan energy saving measures, such as cleaning the dust from the tubelights to get more light, regular servicing and maintenance of home appliances and switching off lights and devices when not in use, etc. to conserve energy. Energy conservation also help in saving fossil fuel and money.

Soil conservation

Soil conservation means checking soil erosion and improving soil fertility by adopting various methods. Soil conservation can be useful for the following:

1. Maintenance of soil fertility: The fertility can be maintained by adding manure and fertilizers regularly as well as by rotation of crop.

2. Control on grazing: Grazing should be allowed only on specified areas.

3. Reforestation: Planting of trees and vegetation reduces soil erosion.

4. Terracing: Dividing a slope into several flat fields to control rapid run of water. It is practised mostly in hilly areas.

5. Contour ploughing: Ploughing at right angles to the slope allows the furrows to trap water and check soil erosion by rain water.

Water conservation

Conservation and management of water are essential for the survival of mankind, plants and animals. This can be achieved by adopting the following methods:

1. Growing vegetation in the catchment areas, which will hold water in the soil and allow it to percolate into deeper layers and contribute to formation of ground water.

2. Constructing dams and reservoirs to regulate supply of water to the fields, as well as to enable generation of hydroelectricity.

3. Sewage should be treated and only the clear water should be released into the rivers.

4. Industrial wastes (effluents) should be treated to prevent chemical and thermal pollution of fresh water.

5. Judicious use of water in our day-to-day life.

6. Rainwater harvesting should be done by storing rainwater and recharging groundwater.

7. Watershed, which is a single unit of land with its water drainage system includes soil and water management for developing vegetative cover in the area.

Energy conservation

We use a lot of non-renewable energy resource for our needs. Since resources are limited, we need to conserve them as much as possible. Conservation of resources or energy means saving them and using them efficiently. Can you think of ways to save the natural resources? Some ideas have been given here in table 5.6.

Table 5.6: Ways of Conserving Energy

- Switch off lights, fans, TV and other electrical items, when not in use
- Use tube lights and energy efficient bulbs that save energy rather than bulbs.
- Keep the bulbs and tubes clean.
- Remove dust on the tubes and bulbs to improve lighting levels by 10 to 20%.
- Use pressure cooker to save energy required for cooking.
- Keep vessels covered with a lid during cooking. It is useful in cooking the food faster and saving energy.
- Electric items like air conditioners geysers, heaters and dryers use a lot of electrical power. Use them when necessary.

- Do not keep the door of a refrigerator open for a long time.
- Cool hot food before putting in the refrigerator.
- Use methods of cooking that use less energy, like use a pressure cooker or solar cooker to cook food.
- Travelling in a bus or travelling in a group in a carpool is better than going alone in a car.

Do you know?

In the long-term, renewable energy will be cheaper and will cause less pollution.

Food conservation

Food conservation and storage have been practiced to feed mankind in times of shortage. Food is stored in warehouses on large scale and in refrigerators at home. Food is also preserved through various methods to prevent the spoilage due to harmful bacteria and other microorganisms.

Forest conservation

Forest conservation means the retention of existing forest or the creation of new forest at the levels prescribed by the State or local authority. Participation of the community living in and around the forest is important for the success of the forest conservation programme.

Practical Exercises

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

Conserving natural resources

Material required

Pen, notebook, chart paper, colours, crayons etc.

Procedure

- Form a group with four students in each group.
- Make a list of all the energy or natural resources you use in a day, such as petrol or diesel for coming to school in a bus, electricity for light, etc. Then make a list of how you can reduce the amount of resources in each step.
- Make a poster on 'Conserving the Environment'. Write short note on the following topics:
  (a) Rain water harvesting
  (b) Home composting
  (c) Garden on terrace
  (d) Organic gardening
  (e) Drip irrigation

Check Your Progress

A. Multiple choice questions

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. What does conservation of energy mean? (Choose all options that apply)

   (a) Saving energy
   (b) Producing energy
   (c) Using energy efficiently
   (d) Creating energy sources

2. Which of the following are non-renewable resources? (Choose all options that apply)

   (a) Coal
   (b) Diesel
   (c) Sun
   (d) Water

3. Which of the following is an example of renewable resources?

   (a) Coal
   (b) Solar Energy
   (c) CNG
   (d) Petroleum

B. Short answer questions

1. Write any three actions which you can take to conserve energy.

2. Describe any three methods of water conservation.

3. What is the purpose of soil conservation?

4. State any three ways by which we can save energy.

What have you learnt?

After completing this session, you will be able to

- describe methods of conservation of energy resource.
- differentiate between renewable and non-renewable resources.
- demonstrate the knowledge of conserving electricity, water, energy, etc.

SESSION 3: SUSTAINABLE DEVELOPMENT AND GREEN ECONOMY

The current strategies of economic development are using up resources of the world so rapidly that our future generations, the young people of the world, would have

serious environmental problems, much worse than those that we are facing at present. With increasing population and income, the consumption of goods is increasing day by day. This has led to increase in production and utilization of natural resources, which are required for producing goods. Society must thus change its unsustainable development strategy to a new form where development will not destroy the environment. This form of sustainable development can only be brought about if each individual practices a sustainable lifestyle. Since most of the natural resources are scarce, therefore, judicious utilisation of resource is necessary.

Now let us try to understand the meaning of sustainable development. Sustainable development is defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987). For example, sustainable agriculture consists of environment friendly methods of farming that allow the production of agricultural crops or livestock without damage to human or natural systems. It also involves preventing the use of chemicals so as to avoid adverse effects to soil, water and biodiversity.

Biological diversity or biodiversity in short is that part of nature which includes the differences in genes among the individuals of a species, the variety and richness of all the plant and animal species at different scales in space, locally, in a region, in the country and the world, and various types of ecosystems, both terrestrial and aquatic, within a defined area. Biological diversity is essential for preserving ecological processes, such as fixing and recycling of nutrients, soil formation, circulation and cleansing of air and water, global life support (plants absorb CO_2, give out O_2), maintaining the water balance within ecosystems, watershed protection, maintaining stream and river flows throughout the year, erosion control and local flood reduction.

What is sustainable development?

Sustainability is the development that satisfies the needs of the present without compromising the capacity

of future generations, guaranteeing the balance between economic growth, care for the environment and social well-being. Sustainable development is a concept that appeared for the first time in 1987 with the publication of the Brundtland Report, warning of the negative environmental consequences of economic growth and globalisation.

Sustainable development includes the following:

- reducing excessive use of resources and enhancing resource conservation.
- recycling and reuse of waste materials.
- scientific management of renewable resources, especially bio-resources.
- planting more trees.
- green grassy patches to be interspersed between concrete buildings.
- using more environment friendly material or biodegradable material.
- use of technologies, which are environmental friendly and based on efficient use of resources.

"The principle of common but differentiated responsibilities is the bedrock of our enterprise for a sustainable world"

Narendra Modi
Prime Minister of India

Sustainable Development Goals

The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. The Sustainable Development Goals (SDGs) were launched at the United Nations Sustainable Development Summit in New York in September 2015, forming the 2030 Agenda for Sustainable Development. The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) adopted by world leaders in 2015, embody a road map for progress that is sustainable and leaves no one behind. The SDGs have been framed with the objective to address vital issues facing businesses, governments and society, such as poverty, gender equality, water use, energy, climate change and biodiversity. Countries are now establishing policies and regulations that will promote sustainable systems needed in all economic sectors to provide a secure, affordable, and sustainable economy. The core

skills identified as necessary for the green worker include environmental awareness and willingness to learn about sustainable development as well as general learning and decision-making ability.

Green growth

The concept of green growth aims at achieving economic growth that is socially inclusive and environmentally sustainable. The Ministry of Environment, Forest, and Climate Change, Government of India recognized green growth in its vision, wherein 'poverty eradication' along with green growth is to be seen as the focal point for green economy.

The Finance Commission of India articulated green growth as involving "rethinking growth strategies with regard to their impact(s) on environmental sustainability and the environmental resources available to poor and vulnerable groups." The extent to which its economy will "grow green" will depend on its ability to reduce the quantity of resources required over time to support economic growth that leads to enhancement of social equity and job creation. Green growth could play an important role in balancing these priorities.

To ensure sustainable development, any activity that is expected to bring about economic growth must also consider its environmental impacts so that it is more consistent with long term growth and development. This means vehicles on the road which leads to traffic congestion, waste of time for all the commuters, and a great load of particulate matter and carbon monoxide from the exhaust of vehicles should be slowly replaced with an efficient public transport system.

Green Economy

The term 'Green Economy' was first coined in a 1989 report for the Government of the United Kingdom by a group of leading environmental economists, entitled Blueprint for a Green Economy. UNEP has defined the green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.

It is low carbon, resource efficient, and socially inclusive" (UNEP, 2011). A 'Green Economy' is a system which helps in economic growth while at the same time, taking care of the environment as shown in Figure 5.1.

Certain ways of economic growth, such as building factories, using chemicals for more crops, etc., harm the environment. Some ways of saving the environment, such as not using fertilisers will harm the economy of the farmers. But then, both the environment and economy are important for us as a society. As people begin to learn about the serious health hazards caused by pesticides in their food, public awareness can begin putting pressures on farmers to reduce the use of chemicals that are injurious to health. In the longer term, as people become more conscious of using 'green products' made by ecosensitive industries, the products that cause severe damage to the environment may not be used.
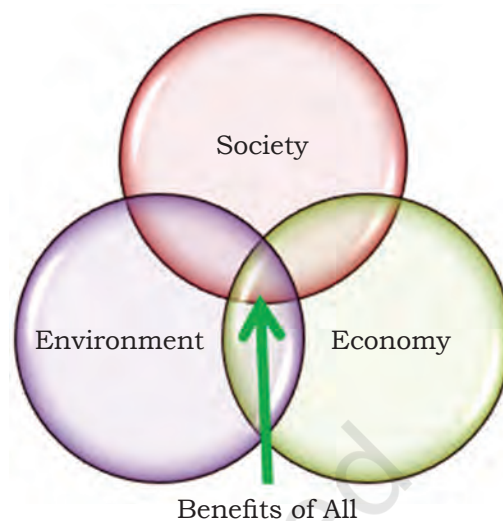

Fig. 5.1 Green Economy

Green Consumer

A green consumer is someone who is very concerned about the environment and, therefore, only purchases products that are environment-friendly or eco-friendly. Products with little or no packaging, products made from natural ingredients and products that are made without causing pollution are all examples of eco-friendly products.

Components of a Green Economy

A green economy includes the following components as shown in Table 5.7.

Table 5.7: Components of a Green Economy

Renewable energy	Renewable energy from renewable resources like wind, water, sun, earth, biomass, etc., are available in large quantities and cause less pollution. India ranks amongst the top 10 countries for production of renewable energy through solar, wind and biomass.

Green building	Green buildings are buildings that cause minimum damage to the environment during their construction and operation. They use energy, water, and other resources wisely, with minimum waste.
Well-managed (Sustainable) transport	Sustainable means what is good for the economy as well as the future of the environment. A sustainable transport system will cost less, help more people to move quickly and cause less or no damage to the environment.
Water management	We need to avoid water pollution and not waste water. We should not waste water, rather we should recycle it for various purposes.
Waste management	All wastes result in loss of resources and increases land, water and air pollution. You can prevent this by separating waste before throwing. Using the 3Rs—Reduce, Reuse and Recycle will help in managing waste material.
Land management	Land is used for farming, forests, factories, homes, roads, etc. In a green economy, land is used in a way that it meets the requirement of people without causing damage to the environment.

In other words, we can say that a green economy uses less resources, causes less pollution and provides growth for everyone.

Skill development for Green Economy

The key challenges for India are to expand access to food, energy, water and other essential goods and services to its growing population. It needs to work towards the objective of alleviating poverty and catalysing sustainable development. The development of skills for green jobs is crucial to ensuring an efficient transition from

unsustainable to a green economy by matching supply and demand for skills. A green job can be with business, nonprofit organizations, government or education. Some green jobs may have specific requirements for green skills, such as organic farmer needs to have a knowledge and skills for growing organically certified crops. Solar technicians or engineers should possess the knowledge and skills for design, installation and maintenance of solar panels and appliances. Other green jobs may not necessarily require specific skills, for example a graphic designer or a cashier working for a green company or organization will be contributing to the development of green growth and economy.

Green skills

The skills used for promoting green economy are known as green skills. These skills are needed in areas similar to renewable energy, sewer water treatment, climate resilient cities, green construction, solid waste management,etc. The Green Skills Agreement defines skills for sustainability as "Skills for sustainability, also known as green skills, are the technical skills, knowledge, values and attitudes needed in the workforce to develop and support sustainable social, economic and environmental outcomes in business, industry and the community." Some of the areas in which green skills contribute to the sustainable development are as follows:

- using renewable energy (example, using solar power and wind energy)
- water and waste management
- rain water harvesting
- conserving energy
- reducing pollution

Green skilling is crucial for making a transition from energy and emissions—intensive economy to cleaner and greener production and service. It also prepares people for green jobs that contribute to preserving or restoring the quality of the environment, while improving human well-being and social equity. Many technologies have been developed to make use of the solar energy,

Green skills

Green skills are those skills required to adapt processes, services and products to climate change and the environmental rules and necessities related to it. They embrace the information, abilities, values and attitudes required to live in, develop and support a sustainable and resource-efficient society.

such as solar lights, solar cooker, solar water heaters, etc. The installation of the solar panels and appliances requires engineers and technicians.

Most vocational training programmes focus on vocational or technical skills rather than 'soft' or 'green' skills. Green skills contribute to preserving or restoring environmental quality for sustainable future and include jobs that protect ecosystems and biodiversity, reduce energy and minimise waste and pollution. The National Skill Development Mission, which was officially launched by Government of India in 2015 has been developed to create convergence across sectors and States in terms of skill training activities, including green skills. The knowledge and skills that may be needed for managing resources and supporting efficiency have been summarised in Table 5.8.

Green skills are going to be more important in the future as all countries will move towards a greener economy. Good communication skills are also needed so that workers in different sectors can work together

> **Green Consumer Day** is celebrated on September 28 of each year. It is a day when people celebrate the earth and bring about awareness on how small actions can help earth to remain green and clean. People tend to recycle more than usual on that day and wear the colour green to express to the world their feelings regarding the universe and mother nature.

Table 5.8: Knowledge and skills needed for managing resources and supporting efficiency

S.No.	Purpose	Knowledge and skills needed
1.	Manage natural resources	• To assess environmental impact • To design and adopt technologies that help in reducing the consumption of natural resources • To understand legislation and guidelines for sustainable utilisation of natural resources
2.	Support climate resilience	• To develop models for interpreting climate change projections • To develop risk management strategies for future resource availability • To adopt technologies that improve resilience
3.	Support resource efficiency	• To develop resource efficient business models • To develop and adopt technologies that maximises resource utilisation and reduces waste
4.	Support low carbon industry	• To develop technologies that promote renewable energy sources (wind, solar, water) • To design and adopt technologies and products that minimises carbon emissions

effectively towards green solutions. In the green building sector, for example, the ability to work with other trades is critical to improving a building's energy efficiency. The Ministry of Environment, Forest and Climate Change, Government of India, has taken up an initiative for skill development in the environment and forest sector to enable India's youth to get gainful employment and/or self-employment, called the GREEN SKILL DEVELOPMENT PROGRAMME (GSDP). The programme endeavours to develop green skilled workers having technical knowledge and commitment to sustainable development, which will help in the attainment of the Sustainable Development Goals.

Environmental change can be seen as an important factor that affects labour demand and skills supply across all sectors, such as Automotive, Retail, Electronics, Power, Construction, etc., which impacts the economy. Green Skills thus, are the skills that aim to balance economic development with environmental conservation so that the needs of the society, economy and environment are efficiently met, with minimum damage to the environment.

What are green jobs?

A 'green job' is employment in any industry that contributes to preserving or restoring environmental quality in that sector and allowing for sustainable development. It includes jobs that help protect ecosystems and biodiversity and reduce energy, materials and water consumption through high efficiency strategies. Green jobs can be in any sector, such as agriculture, manufacturing, research and development activities, etc. They can bring about the much needed transition from high carbon to low carbon economy by promoting environment friendly technologies. A rise in green buildings and energy efficiency is increasing the demand for architects, engineers, technicians, plumbers, construction workers, etc. Some of the sectors, which have the potential for green jobs are as follows:

S.No.	Sector	Areas/Field/Activities	Green Jobs
1.	**Agriculture**	• Organic farming • Watershed management • Rain water harvesting	• Water quality technician • Rain water harvesting professionals and technician • Solar pump technician • Greenhouse or polyhouse professionals and technicians
2.	**Construction**	• Planning, design and manufacturing of energy efficient lighting appliances and equipment • Increasing efficiency of existing buildings through energy audits • Planning, design, and construction of green buildings • Green plumbing, using sensor based equipment	• Green builders • Green design professionals • Green workers
3.	**Energy**	• Research, construction, and monitoring of power plant, including plant efficiency and carbon sequestration • Increased power plant efficiency	• Solar Cell Technicians and Engineers • Wind energy professionals • Wind energy workers • Biofuel professionals • Wave energy producers
4.	**Forestry**	• Reforestation and afforestation projects • Agroforestry and vertical farming for better utilisation of natural resources.	• Natural scientists
5.	**Manufacturing**	• Pollution control • Energy efficiency • Recycling waste materials	• Recyclers
6.	**Retail**	• Greener products and specifically targeted green stores	• Green salesperson • Accountants • Cashiers • Sales associates
7.	**Automotive and Transport**	• Research and design on more fuel efficient vehicles and on public transport systems • Manufacture of alternatively fuelled vehicles	• Clean car engineers

8.	**Tourism and Hospitality**	• Eco-friendly practices, such as centralized lighting and air conditioning systems for saving electricity • Eco-tours	• Eco-tour guides • Green tour guides
9.	**Education**	• Research and development activities for promoting green growth and economy • Teaching environmental education • Research and development in conservation of natural resources	• Teachers teaching environmental education • Green scientist • Conservation biologists

Green projects

Many people and organisation are concerned and motivated about doing something to save the environment. They are implementing green projects in areas like waste management, energy conservation, green sanitation, biofuel use, green buildings, etc. Examples of the green projects undertaken by some of the organisations are given in Table 5.9 to highlight the various aspects of green practices and techniques that could help us in saving our environment and making our efforts more focused for sustainable development and growth.

Table 5.9: Examples of Green Projects

Solid Waste Management by 'Swachh Cooperative'

'Swachh Cooperative' is wholly owned by waste pickers. The Cooperative has members who are engaged in door step collection of waste in Pune. This integrates informal waste pickers into Pune city's Solid Waste Management system. This project has become a success with the support of government and the waste-pickers. Waste pickers now work with dignity and provide a decentralised waste management system. They ensure efficient disposal of wet waste through biogas regeneration, along with recycling of solid waste. Biogas is produced from plant material and animal waste, garbage,

waste from households and some types of industrial wastes, such as fish processing, dairies, and sewage treatment plants. It is a mixture of gases which includes methane, carbon dioxide, hydrogen sulphide and water vapour. In this mixture, methane burns easily.

Modern *Chulha* of 'Society of Development and Environment Protection'

Energy efficient cooking stoves or 'chulas' help the movement of air through it so that the wood is burnt more efficiently. The Society of Development and Environment Protection developed the 'Modern DEEP (Development and Environment Protection) Chulha' that uses biomass to reduce consumption of wood by 50%. This chulha reduces smoke by 80%, reducing environmental and health problems. The project trains masons and welders, to produce the chulhas, thus increasing employment and entrepreneurship opportunities. The initiative was started in 35,000 households of Solan district in Himachal Pradesh in 1995.

Biotoilet by 'Green Solution Foundation'

GSF (Green Solution Foundation) has created a bio-toilet solution for hygienic sanitation in villages and slums in cities that lacked sewage systems. Users or donors fund these bio-toilets while GSF provides training on toilet use and servicing involving the local population, thus creating employment and entrepreneurship opportunities.

The Bio-digester tank forms the basis for this eco-friendly toilet. Using aerobic bacteria, this tank converts human waste into environment standard compatible water, which is used for flushing, or even for irrigation.

Green benefits
- Water conservation due to less flushing
- Efficient sewage system
- Decrease in soil and water contamination
- Decrease in diseases due to hygienic sanitation.

Practical Exercise

The teacher will facilitate these activities and give additional feedback and summarise for the students as needed.

Activity 1

Importance of Green Skills

Procedure

- Form groups of 3–4 people in each group.
- Within your group, discuss the importance of green skills and their role in making a green economy.
- One volunteer group explains the importance of green skills and a green economy to the rest of the class.

Activity 2

Importance of green economy

Materials required

Pen, chart paper, colours, crayons

Procedure

1. Keep the same group as the previous activity.
2. Make a poster on 'Importance of a Green Economy' using the points from your previous discussion. You can use magazine and newspaper cuttings.

Check Your Progress

A. Multiple choice question

Read the questions carefully and circle the letter (a), (b), (c) or (d) that best answers the question.

1. Which of the following options describe a green economy correctly? A green economy _____.

   (a) uses less resources
   (b) uses more resources
   (c) wastes less items
   (d) wastes more items

B. Short answer questions

1. What are green skills?

2. Give two examples of green skills that you can start learning from now.

What have you learnt?

> **After completing this session, you will be able to**
>
> - demonstrate the knowledge of green skills, green economy and green jobs.
> - identify the green jobs in various sectors.

UNIT 1: Communication Skills

Session 1: Introduction to Communication

A. Multiple choice questions

1. d
2. d
3. a

B. Match the columns

1. Language	c) Talking in Hindi when others know only Tamil
1. Emotion	d) Parent is not talking to the child.
3. Environmental	a) Trying to read a book when somebody else is watching the TV in the same room.
4. Cultural Barriers	b) In some cultures, wearing shoes and walking inside the kitchen is considered rude and disrespectful.

Session 2: Verbal Communication

A. Multiple choice questions

1. c
2. b
3. a and b

Session 3: Non-Verbal Communication

A. Multiple choice questions

1. b
2. c
3. a
4. d

B. Put an X mark against the incorrect actions below

- Laughing during formal communication   X
- Scratching head   X
- Smiling when speaking to a friend
- Nodding when you agree with something
- Standing straight
- Yawning while listening   X
- Sitting straight
- Maintaining eye contact while speaking
- Biting nails   X

•	Firm handshake		
•	Clenching jaws		X
•	Looking away when someone is speaking to you		X
•	Intense stare		X

Session 4: Writing Skills – Parts Of Speech

A. Multiple Choice Questions

1. b
2. d
3. c and d
4. (a) Sanjay-noun, plays-verb, football-noun, everyday-adverb
   (b) Divya-noun, gave-verb, him-pronoun, new-adjective, books-noun
   (c) I-pronoun, opened-verb, the-article, red-adjective, box-noun, carefully-adverb

B. Fill in the blanks

	a) The boy is running.		b) The girls are skipping.
	c) The girl is riding.		d) Raju is drinking.
	e) The boy is reading.		f) The dog is barking.

Session 5: Writing Skills – Sentences

A. Multiple choice questions

1. a
2. d
3. d
4. b

Session 6: Pronunciation Basics

A. Multiple choice questions

1. d
2. d

Session 7: Greetings and Introductions

A. Multiple choice questions

1. d   2. d
3. d   4. d

Session 8: Talking About Self

A. Multiple choice questions

1. (a) My first name is Yasmin.
   (b) My surname is Hassan.
   (c) I am seven years old.
   (d) I live in Bangalore.
   (e) I like Football and Swimming
2. c

Session 9: Asking Questions-I

A. Multiple choice questions

1. c   2. b, c
3. b, c   4. d

Session 10: Asking Questions-II

A. Multiple choice questions

1. c
2. a and c
3. a, c, d
4. c

UNIT 2: Self-management Skills

Session 1: Introduction to Self-Management

A. Multiple choice questions

1. b
2. c

Session 3: Self-Confidence

A. Multiple choice questions

1. b, c, d
2. c

Session 4: Positive Thinking

A. Multiple choice questions

1. c
2. d
3. a

Session 5: Personal Hygiene

A. Multiple choice questions

1. c
2. b

Session 6: Grooming

A. Multiple choice questions

1. a
2. b
3. a

UNIT 3: Information And Communication Technology Skills

Session 1: Introduction to ICT

A. State whether the following statements are True or False.

1. False
2. False

Session 3: ICT Tools – Smartphones & Tables – 2

A. Multiple choice questions

1. c
2. a
3. a

Session 4: Parts of a computer and peripherals

A. Multiple choice questions

1. a. c. d.
2. a. c. d.
3. b

B. Short Answer Questions

Write the purpose of the I/O devices

Input/Output device	Purpose
Mic/microphone	To record voice on the computer and to communicate
Scanner	To scan/capture a paper image, document and converts it to digital file on computer
Camera	To record videos and photographs
Barcode Reader	To record the items purchased in order to create the receipt or bill
Printer	To print out the visual output as displayed on the monitor or on the paper
Speaker	To play out loud all the sound-based output from the computer

Session 5: Basic Computer Operations

A. Multiple choice questions

1. c, d
2. b
3. c>d>e>b>a

Session 6: Performing basic file operations

A. Multiple choice questions

1. c
2. d
3. b

Session 7: Communications and Networking – Basics of Internet

A. Multiple choice questions

1. c
2. b

Session 8: Communications and Networking – Internet Browsing

A. Multiple choice questions

1. d
2. b

Session 9: Communications and Networking – Introduction to Email

A. State whether the following statements are True or False.

1. False
2. True
3. False

Session 10: Communications and Networking – Creating an Email Account

A. Multiple choice questions

1. d
2. c
3. c

Session 11: Communications and Networking – Writing an Email

A. Multiple choice questions

1. d
2. a

B. Fill in the blanks

1. email address
2. "chip"
3. subject
4. send

Session 12: Communications and Networking – Receiving and Replying to an Email

A. State whether the following statements are True or False

1. True
2. True
3. False

UNIT 4: Entrepreneurshipial Skills

Session 1: Introduction

A. Multiple choice questions

1. b
2. c

B. Short answer question

1. Write Yes / No if the person is an entrepreneur or not.

	Statement	Yes/No
1.	Ravi made tea for his friends in the office. Everyone liked the tea very much and told him that he is very good at making tea.	No
2.	Savita, a house wife, needs extra money for her kids' tuition. She notices that in the afternoon, the children coming out of a nearby college look tired and hungry. She makes refreshing Neembu Pani and samosas and sells them to the students.	Yes
3.	Rahul loves dogs. He plays with dogs of his friends' family. One day when they were going out-of-station, they asked Rahul to take care of their dog. Rahul thought that this was a good idea, "taking care of dogs when the owner is traveling". He started his own company which is like a "hotel for dogs". When the dog-owners travel, they leave their dogs at this hotel and pay the company money for each day they take care of the dog. Is Rahul an entrepreneur?	Yes
4.	Monica noticed that her neighbours used to face a problem. They had to leave their young baby behind when they went for work. Monica started going to this house in the evening to take care of the baby for them. Her neighbours were very happy and used to give her chocolates for doing that.	No

Session 4: Distinguishing Characteristics of Entrepreneur and Wage Employment

A. Fill in the blanks

1. (a) Entrepreneur
   (b) Employee
   (c) Entrepreneur

Session 5: Types of Business Activities

A. Fill in the blanks with Product or Service

1. Product
2. Service
3. Service

Session 6: Product, Service and Hybrid Businesses

A. Fill in the blanks

1. P-Product, S – Service or H-Hybrid
   (a) Product
   (b) Hybrid
   (c) Service

Session 7: Entrepreneurship Development Process

A. Match the following

1. b   2. a   3. d   4. c

UNIT 5: Green Skills

Session 1: Society and Environment

A. Multiple choice questions

1. a   2. b   3. c

Session 2: Conserving Natural Resources

A. Multiple choice questions

1. a, c   2. a, b   3. b

Session 3: Sustainable Development and Green Economy

A. Multiple choice questions

1. a