



1. What is Communication?

Information by signs and signals speaking, writing or using some other medium and means is called communication.

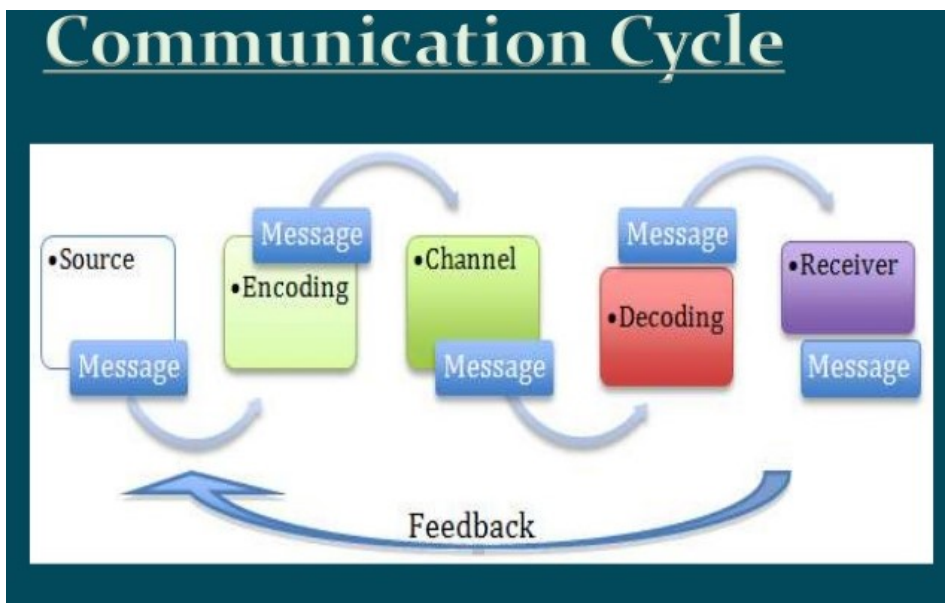
Learning objectives of Effective communication

1. Sending, receiving and understanding the message or information.
2. Development of Interpersonal Skills
3. To express effectively & with maximum efficiency



2. Communication Cycle (Process)

Communication Cycle is the process by which a message is sent by one individual and it passes through a chain of recipients. The timings and effectiveness of a communication cycle is based on how long it takes for feedback to be received by the initial sender



- **Sender:** the person or entity originating the communication
- **Message:** the information that the sender wishes to convey
- **Encoding:** how the sender chooses to bring the message into a form appropriate for sending

- **Channel:** the means by which the message is sent
- **Receiver:** the person or entity to whom the message is sent
- **Decoding:** how the receiver interprets and understands the message
- **Feedback:** the receiver's response to the message



Activity (Paper folding activity) – To understand the importance of all components of communication

Step 1- Teacher distributes half a sheet of paper to all students

Step 2- Teacher instructs them not to ask any questions or look at others what they are doing. Teacher gives few instructions, like fold the paper (without telling which way), tear a corner(without telling which corner upper right/upper left/bottom right/bottom left) make a small hole(without telling where and how big)

Step 3- After many incomplete instructions, teacher asks students to open the given papers

Step 4- Students shall be surprised to see that all papers look different.

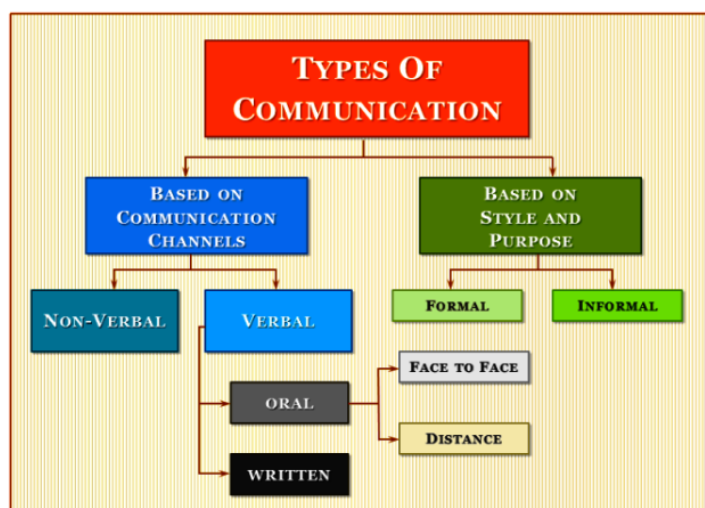
Conclusion- Students understand the importance of clear, precise and complete instructions for effective communication. They understand the importance of two way communication, which allows the receiver to ask questions from sender for better clarity.

3. Communication Styles

There are four main categories or communication styles including verbal, non-verbal, written and visual.

3.1. Verbal

Verbal communication is the use of language to transfer information through speaking or sign language. It is one of the most common types, often used during presentations, video conferences and phone calls, meetings and one-on-one conversations. Verbal communication is important because it is efficient. It can be helpful to support verbal communication with both non-verbal and written communication.



3.2. Non-verbal

Nonverbal communication is the use of body language, gestures and facial expressions to convey information to others. It can be used both intentionally and unintentionally.



Non-verbal communication is helpful when trying to understand others' thoughts and feelings.

3.3 Visual- Visual communication is the act of using photographs, videos, art, drawings, sketches, charts and graphs to convey information. Visuals are often used as an aid during presentations to provide helpful context alongside written and/or verbal

communication. Since people have different learning styles, visual communication might be more helpful for some to consume ideas and information..

3.4 Written

Written communication is the act of writing, typing or printing symbols like letters and numbers to convey information. It is helpful because it provides a record of information for reference. Writing is commonly used to share information through books, pamphlets, blogs, letters, memos and more. Emails and chats are a common form of written communication in the workplace.



Written communication has been proved to be a boon to regulate the daily operations of an organisation. This communication may include memos, letters, documents, and feedback results etc. The reliability proffered by written communication is indeed remarkable and phenomenal. However, as there are many advantages associated with this medium of communication, there are also multiple disadvantages associated with its being. In this connection, in order to equip a detailed insight, below mentioned are the pros and cons provided by the written communication.

3.5 Advantages of Written Communication:

The major advantages of written communication are listed below:

3.5.1. A Permanent Record:

A written communication helps to maintain a permanent record of the information exchanged or shared.

3.5.2. Meticulous Presentation:

As a written document is a permanent record, people are very cautious to fulfil all the writing requisites to make the writing perceivable at the other end. Thus, every document curated covers all major information pointers necessary to be communicated.

3.5.3. Easy Circulation:

A written document can easily be circulated in an organisation, unlike the oral communication medium. Thus, this attribute of written communication comes handy in equipping the masses with the necessary information.

3.5.4. Suitable for Statistical Data:

Statistical charts and figures are difficult to be interpreted verbally, thus, circulating a document allow people to examine such intrinsic detail with ease.

3.5.5. Promotes Goodwill:

When conducting business, a well-crafted written document speaks volumes about the competence of a particular organisation. Therefore, written communication helps to promote goodwill if performed wisely.

3.6 Disadvantages of Written Communication:

The main disadvantages encountered are:

3.6.1. Time Consuming:

In order to craft an impeccable piece of document, one has to invest an ample amount of time which is indeed difficult in constrained timelines.

3.6.2. Non-flexible:

A written document cannot be altered once circulated. This makes written communication non-flexible as every written word is concrete and final

3.6.3. No Scope for Clarification:

If the document is not curated keeping the less informed person's mind-set in check, the details cannot be perceived by such people via the formulated written document.

3.6.4. Demands Writing Proficiency:

In order to deliver the message adequately across the other end, one should have competencies in the writing sector.

3.6.5. Probability of Wrong Interpretation:

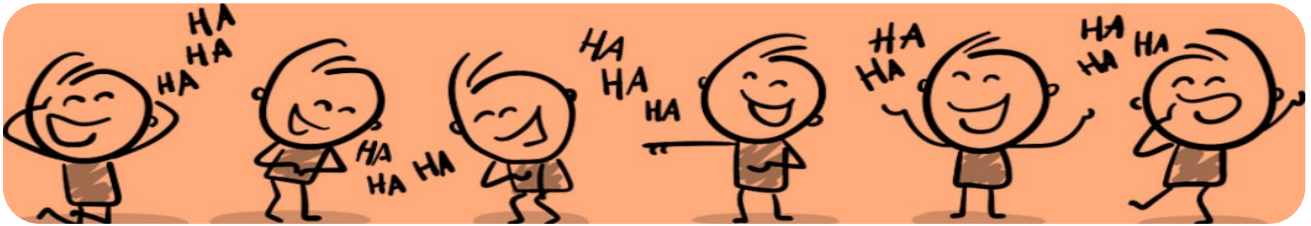
If there are complex words or difficult sentences included in the writing document, one may interpret a wrong/no meaning out of it. Thus, in order to use written communication, one should make use of easy language.



4. Introduction to Verbal and Non-Verbal Communication

Verbal and non-verbal communication go hand in hand in day to day interactions. Let us understand this through an activity.

ACTIVITY



Activity- Narrate a joke/funny incident

Step 1- Teacher calls upon one student and asks him/her to tell a joke facing the black Board, without using non-verbal mode.

Step 2- The same joke is narrated by the student, this time facing the class and with use of non-verbal modes like body language, gestures etc.

Conclusion- Students observe the reaction of class in both scenarios and understand how non-verbal and verbal communication when used together makes the communication more effective.

4.1 Body language is an aspect of non-verbal communication where physical behaviour is used (as opposed to or in addition to words) to convey information. It's important that our body language synergizes with our words.

4.1.1 Body language includes:

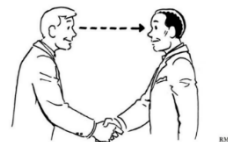
- Facial expressions
- Posture
- Gestures
- touch
- The use of space
- Eye movement

It's also known as "kinesics".

4.2 The Dos and Don'ts of non-verbal messages and body language

4.2.1 DOs

- Make eye contact. ...

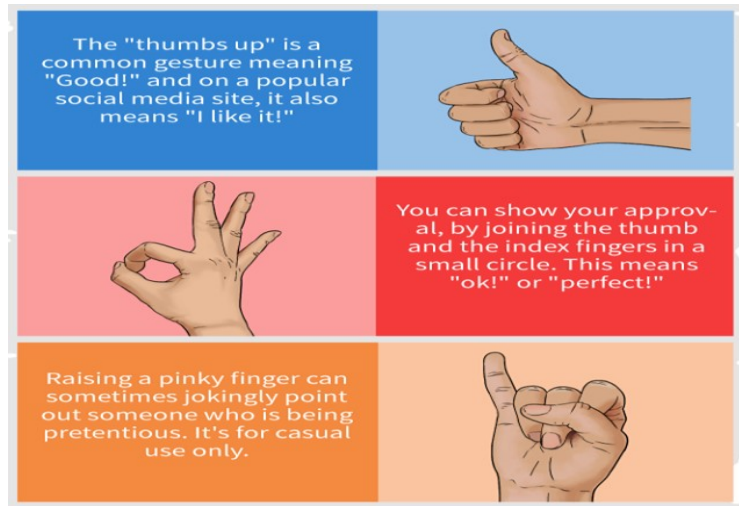


- Have a firm handshake. ...

- Check your facial expression. ...
- Be natural with your gestures
- Maintain a receptive posture. ...
- Refrain from sending mismatched messages. ...
- Watch for actions that can be taken for defensiveness. ...
- Don't appear disengaged.

4.2.2. Don'ts

- Rubbing your hands together during an important meet up
 - Leaning back while meeting with a friend or close colleague.
- Crossing your arms during an interesting conversation.
- Not making eye contact.
- Making too much eye contact.
- Fidgeting.
- Touching your face too often.



Some Common Hand Gestures

4.3 Advantages of Verbal Communication Skill:

4.3.1. It saves time:

The verbal form of communication gives you this facility to quickly send intended message thus saving you time.

4.3.2. It saves you money: No requirement of paper or designing a flyer etc

4.3.3. Feedback quickness:

The distinct advantage of verbal communication is in the fact that the receiver can ask and clarifies his doubt on the spot without any delay. The sender can get quick feedback as to whether his intended message is received in its intended form or not and can clarify the receiver, in the case of any doubt.

4.3.4. Most convenient method: Verbal communication is the most widely adopted means of communication globally. People prefer more of verbal communication due to the convenience factor. While communicating verbally, you are more likely to convey matter simply in plain understandable language which is widely preferred

4.3.5. Ease of preparation:

Oral communication is the easiest way of communication as it does not require preparation of any material.

4.4 Disadvantages of Verbal Communication:

4.4.1. Chances of distortion of meaning:

Due to the presence of various barriers in effective communication, it happens that the intended meaning of the message changes for the intended person which causes a lot of problems in the future.

4.4.2. Not convenient for long messages:

It is not at all convenient to convey long messages orally as it may happen that by the time message is completed, the receiver may forget the previously spoken important points leading to a chance of ineffective communication.

4.4.3. Irrelevant information:

While having an important discussion, a lot of irrelevant information can creep in during a conversation leading to a waste of time and gap in the relevant information. This leads to unnecessary time waste and sometimes omitting or forgetting to converse on what is really important. Therefore it is always necessary to keep your communication process clear of any unwanted discussion that may lead to wastage of your precious time and energy.

4.4.5. Create a misunderstanding:

Usually, when two individuals are having deep conversations, they can have some misunderstandings during the time. Sometimes subtle hints given or some words spoken with some intention get misinterpreted and a whole new different meaning comes out of it. Thus it becomes crucial to know that what you have has a crystal clear meaning with no indirect hints that could make a conversation difficult.

4.4.6. Communication cost:

Sometimes verbal communication can be really expensive if you need to communicate in a language that you are not familiar with. You will need another person to play the part of translator for you. With advanced technology of hologram, translator may not be required but surely big cost is involved.

4.4.7 Conclusion:

Verbal communication is the most efficient way of communicating between two personnel or groups. The verbal communication provides you the mean to handle the everyday task with ease and helps in getting a quick result as the feedback is quick and the message conveyed in verbal format is quick and direct to the point. Verbal communication forms a great chunk of our daily communication.

4.5 Advantages of non-verbal communication:

4.5.1. Complementary: Non-verbal cues complement a verbal message by adding to its meaning.

4.5.2. Easy presentation: Information can be easily presented in non-verbal communication through using visual, audio-visual and silent means of non-verbal communication.

4.5.3. Substituting: Non-verbal messages may substitute for the verbal message especially if it is blocked by noise, interruption, long-distance, language barrier etc. for example; gestures-finger to lips to indicate need for quiet, facial expressions- a nod instead of a yes.

4.5.4. Reducing wastage of time: The message of non-verbal communication reached the receiver very fast. For this reason,

Non-verbal cues of communication like sign and symbol can also communicate some messages very quickly than written or oral messages.

4.6 Disadvantages or limitations of non-verbal communication:

Despite of advantages of non-verbal communication, it is not free from its limitations or disadvantages which are:

4.6.1. Vague and imprecise: Non-verbal communication is quite vague and imprecise. Since in this communication, there is no use of words or language which expresses clear meaning to the receiver. No dictionary can accurately classify them. Their meaning varies not only by culture and context but by the degree of intention.

4.6.2. Continuous: It is possible to stop talking in verbal communication, but it is generally not possible to stop non-verbal cues.

4.6.3. Multi-channel: while watching someone's eyes, you may miss something significant in a hand gesture. Everything is happening at once and therefore it may be confusing to keep up with everything.

4.6.4. Culture bound: Non-verbal communication is learned in childhood, passed on to you by your parents and others with whom you associate. A few other gestures seem to be universal. Evidence suggests that humans of all cultures smile when happy and frown when unhappy. However, most non-verbal symbols seem to be even further disconnected from any "essential meaning" than verbal symbols. Gestures seen as positive in one culture (Like the thumbs-up gesture in the USA) may be seen as obscene in another culture.

4.6.5. Long conversations are not possible: In non-verbal communication, long conversation and necessary explanations are not possible.



A 3,A4,A5

Activities

1) Bulls-Eye !

How good are the students at spotting details? Students will watch a short video clip of any great character and identify all the body language gestures that help define the character's personality. How does he/she demonstrate comfort and/or discomfort? Does he/she have open/closed body language? Consider watching the video clip first without sound and the students will identify what they think is being communicated through the dialogue. Afterwards, watch the video clip with sound and analyse predictions. Were the gestures and words congruent?

Activity 2 – Who am I?

Teacher tells students to depict their favourite cartoon Character/celebrity/Freedom fighter in non-verbal cues. Other students have to guess the character.



Activity 3- Act out this scene with your partner using as many appropriate gestures and body language as possible

A: Hey you!

B: Me?

A: Yes. Come here

B: Can I help you with something?

A: Don't you know me?

B: Hmm Oh! We met last week at railway station .right? Your name.....

A: That's right. I am..... How are you?

B: Not good, sorry. I just lost my wallet.

A: Oh No! Do you remember where did you leave it?

B: That is the problem. I don't remember and all my money was in that.

A: Listen, I am running late. But I can help you.

B: That is so nice of you. If you could lend me a little sum of money to reach my home. I shall return it tomorrow.

5. Perspectives in Communication

perspective focuses on the way in which our shared meanings and practices are constituted through language and symbol, the construction of messages, and their dissemination through media, organizations, and society.

We all come to each communication exchange with our own 'filter' through which we see the world, the person we are communicating with, and the situation or topic we are communicating about. These filters mean that we don't always start with the same perspective as the person we are communicating with shall differ each time.

5.1 Visual perception

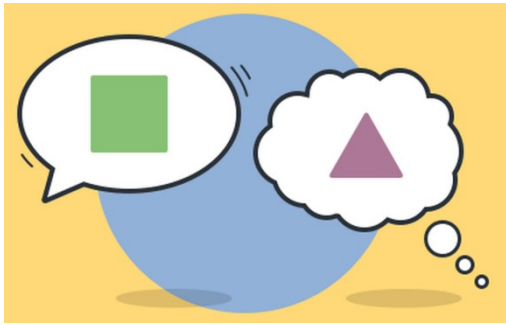
Visual perception is the ability to see and interpret (analyse and give meaning to) the visual information that surrounds us.

Activity – Give few pictures to the students that can have different perceptions. Let them discuss about their individual perceptions, how these differ from student to student

Example:

Do you see an old lady or young lady?





5.2. Language -The different perspectives we experience can be with language as well.

5.3 Past Experiences

5.4. Prejudices

Prejudices occur when we take an isolated experience with one 'type' of person and then act as if all encounters in the future with people of the same 'type' or with the

same characteristics will result in the same experience

5.5. Feelings

There are actually two ways in which your feelings can influence your communication with another person. The first simply refers to the way that you feel on a given day; if you feel well, you'll communicate in one way and if you feel ill you'll communicate in another way

The second aspect related to feelings refers to how you feel about a specific person

5.6 Environment

The last area of influence on communication is your environment. All of us communicate differently in different environments.. Do you speak to our teachers the same way that you do to your friends? Do you talk to strangers with more or less formality than people you know well?

Activity

Group discussion on factors affecting perspectives in communication

6. Factors affecting Communication at Work place

8 Factors Influencing the workplace Communication are;

6.1 Cultural Diversity.

When people from different cultural backgrounds communicate the chance of misunderstanding and wrong interpretation of the message is higher.

6.2 Misunderstanding of Message.

6.3 Emotional Difference.

Emotions and feelings of the parties involved in communication significantly affect the meaning of communication. For example, physicians are usually less emotional to the patient than those of the relatives of the patients.



6.4 Past Experiences.

6.5 Educational and Intellectual Difference.

The difference in the informal educational and intellectual level of the sender and receiver also influences the meaning communication

If they have similar educational qualifications, communication will be effective because they are likely to hold similar perceptions, understanding ,feeling, thinking ,view,etc

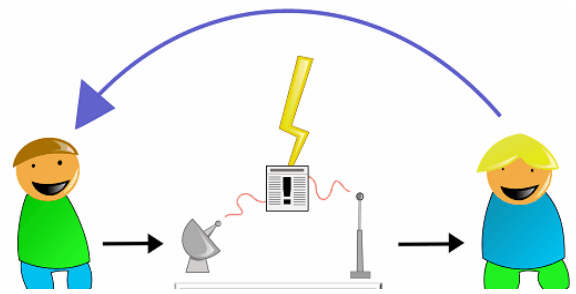
6.6 Group Affiliations.

6.7 Positional Differences among the Personnel.

If the sender and receiver hold different positions in the hierarchy, communication between them may fail.

For example, superiors usually pay less attention to any message from their subordinates. Also, subordinates try to avoid any instruction from the superiors to avoid the workload and responsibilities.

6.8 Functional Relationship between Sender and Receiver. The functional relationship between the sender and receiver significantly affects the meaning of communication in business. If the sender and receiver belong to different functional departments or areas, the receiver may not understand the sender's message.



7. Basic Writing Skills

Writing is a form of communication that allows students to put their feelings and ideas on paper, to organize their knowledge and beliefs into convincing arguments, and to convey meaning through well-constructed text. In its most advanced form, written expression can be as vivid as a work of art. You must have read novels and story books in which the writer writes a scene in such a way that reader can visualize that clearly.

7.1 Kinds of sentences

A set of words that is complete in itself, typically containing a subject and predicate, conveying a statement, question, exclamation, or command, and consisting of a main clause and sometimes one or more subordinate clauses.

The above figure represents 4 types of sentences

The following link will further help to build up the concept)

https://www.youtube.com/watch?v=luDSRs_IzBk

4 Types of Sentences

Declarative Sentence

- Tells something.
- Ends with a period. (.)

Interrogative Sentence

- Asks a question.
- Ends with a question mark. (?)

Exclamatory Sentence

- Shows strong feeling.
- Ends with an exclamation mark. (!)

Imperative Sentence

- Gives a command.
- Ends with a period or an exclamation mark. (. or !)

Activity 2

Reinforcement: Real World Application of Four Sentence Types

For reinforcement, students will use their new knowledge and skills of sentence types by using four different highlighters and finding the sentence types in one of their writing compositions. The students will choose one of their narratives in their writing notebook. They must choose a highlighter colour to represent each type of sentence. Then, they highlight sentences in their composition, color-coding them by type. Once they are have completed ,the teacher will see if they were able to identify the different types in their own writing.

Activity

Four Types of Sentences Exit Slip

Pass out the Exit Slip featured below and students use a color-coded system to write their punctuation and sentence-type names.

Example:

- a) Declarative – orange b) Imperative – yellow c) Interrogative – blue d) Exclamatory – red

Add Punctuation	CHALLENGE: What is the sentence type?
1. Pass the ketchup to Samuel .	imperative
2. There is a fire upstairs !	exclamatory
3. What is Roxy doing tomorrow night ?	interrogative
4. Clean the dishes before you play outside !	imperative
5. He is very handsome .	declarative
6. Watch out !	exclamatory
7. She is wearing a striped shirt .	declarative

7.2 Types-of-Sentences-Decoding-Sheet

To further augment the concept, worksheets can be done in the class. One of the examples is listed below

Name: _____ Date: _____

There are four kinds of sentences in the English language.

1. Imperative- gives a command (.)
2. Declarative- makes a statement (.)
3. Interrogative- asks a question (?)
4. Exclamatory- expresses strong feeling (!)

Identifying Four Kinds of Sentences Worksheet

Directions: Read each sentence and add the correct punctuation mark. Then, label it; imperative, declarative, interrogative or exclamatory.

Example A: You did an excellent job

Answer: You did an excellent job. Declarative

1. How was your day in school
2. Do your assignments in class on time
3. I'm so excited I passed the test
4. Walking up that mountain is dangerous
5. Who is the most popular singer
6. You need to get with the program
7. He is the leader of the group
8. Which is your favourite magazine
9. Congratulations on your achievement
10. That was a physical game
11. Can you cancel the concert
12. What chapter are we reading

Activity- Self Introduction.

Step 1 – Teacher tells few students to introduce themselves to the class in whichever way they know

Step 2-Students identify the mistake or areas that can be improved.

Step 3- Teacher gives them a structure and sequence of self-introduction

Example

- Good morning madam ,my name is
- I am _____ years old.
- I live in _____
- I am a student at _____
- There are _____people in my family. They are _____
- My favourite subject is _____
- My hobbies are _____
- I would like to be a/an _____

Activity – Construct a paragraph using the set of pictures given

Step 1- Teachers randomly takes print out of some pictures and distribute among students who are divided in groups of 3 to 4 each.

Step 2- Students in groups discuss and weave a story out of those pictures and write in down.

Step 3-Students narrate that story in front of class using verbal and non-verbal cues

A paragraph is a series of sentences that are organized and coherent, and are all related to a single topic.

Activity 7

The following activity is a way to make opinion or discursive essay writing lessons more interesting and learner-centred. The activity focuses on mistakes made at paragraph level in a text.

Description

Students will be instructed to write paragraphs on some topics chosen by teacher eg-any of the current affairs, social issues etc.

These samples will be studied carefully followed by healthy discussion on mistakes done .

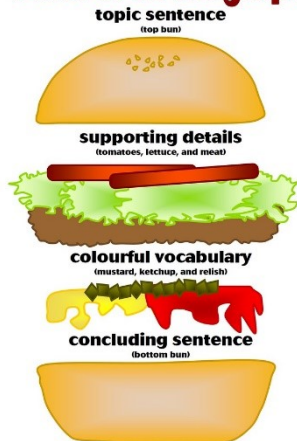
Next, a handout will be designed in which there is a copy of the paragraph with a table including two columns, comments and examples. Leave the "examples" column blank. Put your comments for the chosen paragraphs in the comments column. For example, 'Wrong word - register' or 'use a conjunction here' or 'spelling' or 'poor topic sentence'...

In class give out the handouts and ask students to work in pairs to find examples to support the comments made by the teacher.

This activity aims to help students to recognise their own problems with paragraph construction and to identify errors, which improves their own re-drafting skills.

Burger Chart

Parts of a Paragraph



Directions: Write your topic at the top. Follow it with three supporting details and a concluding sentence

The colourful straw



In this creative writing exercise students will change a given instruction to a hilarious statement . It is a good exercise for writing short instructions to be used in public places.

Setup

- An example image will be shown above to students
- Students will be asked to find about popular statements used in public places or think of any they might have come across

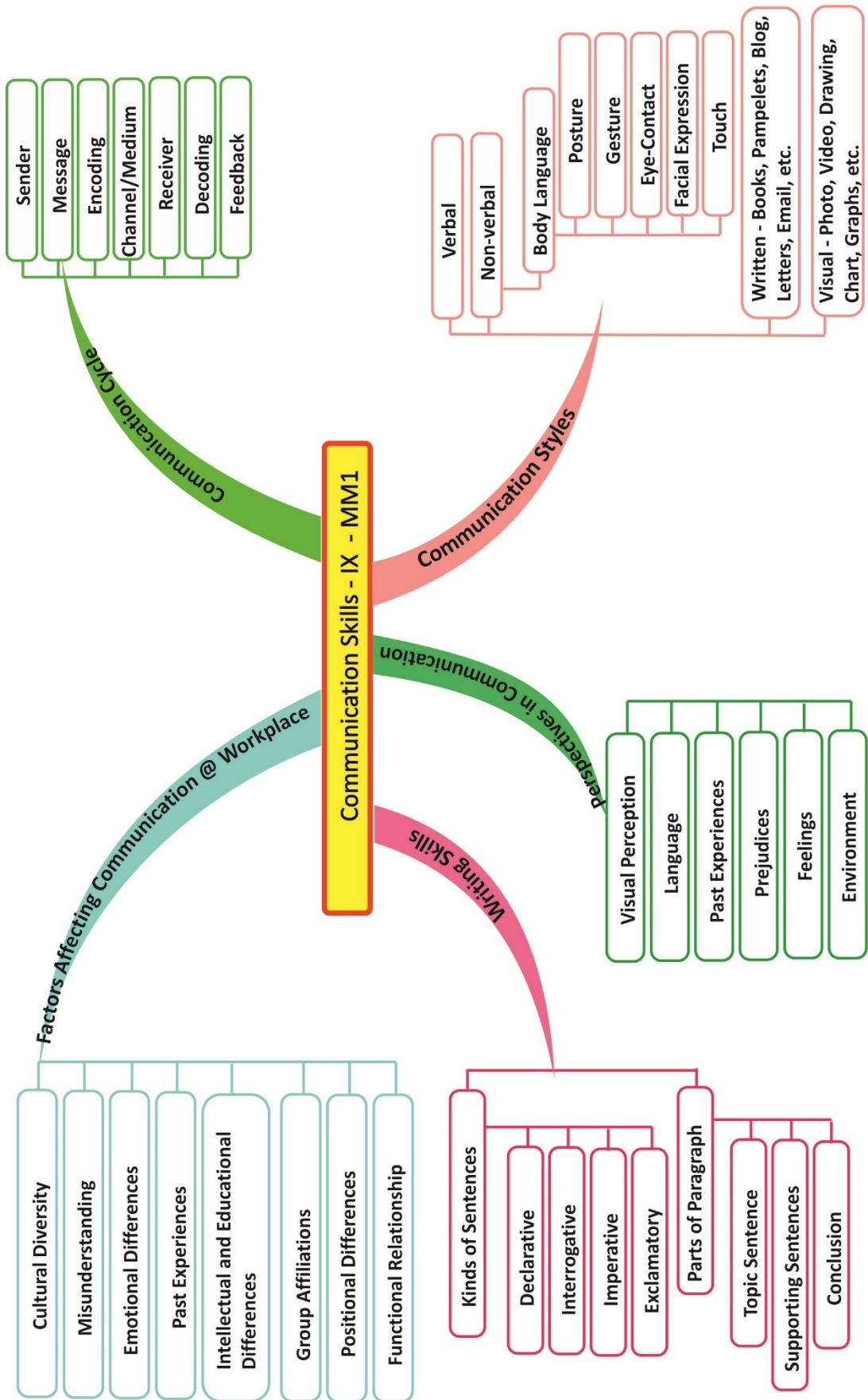
before which is suitable for this exercise.

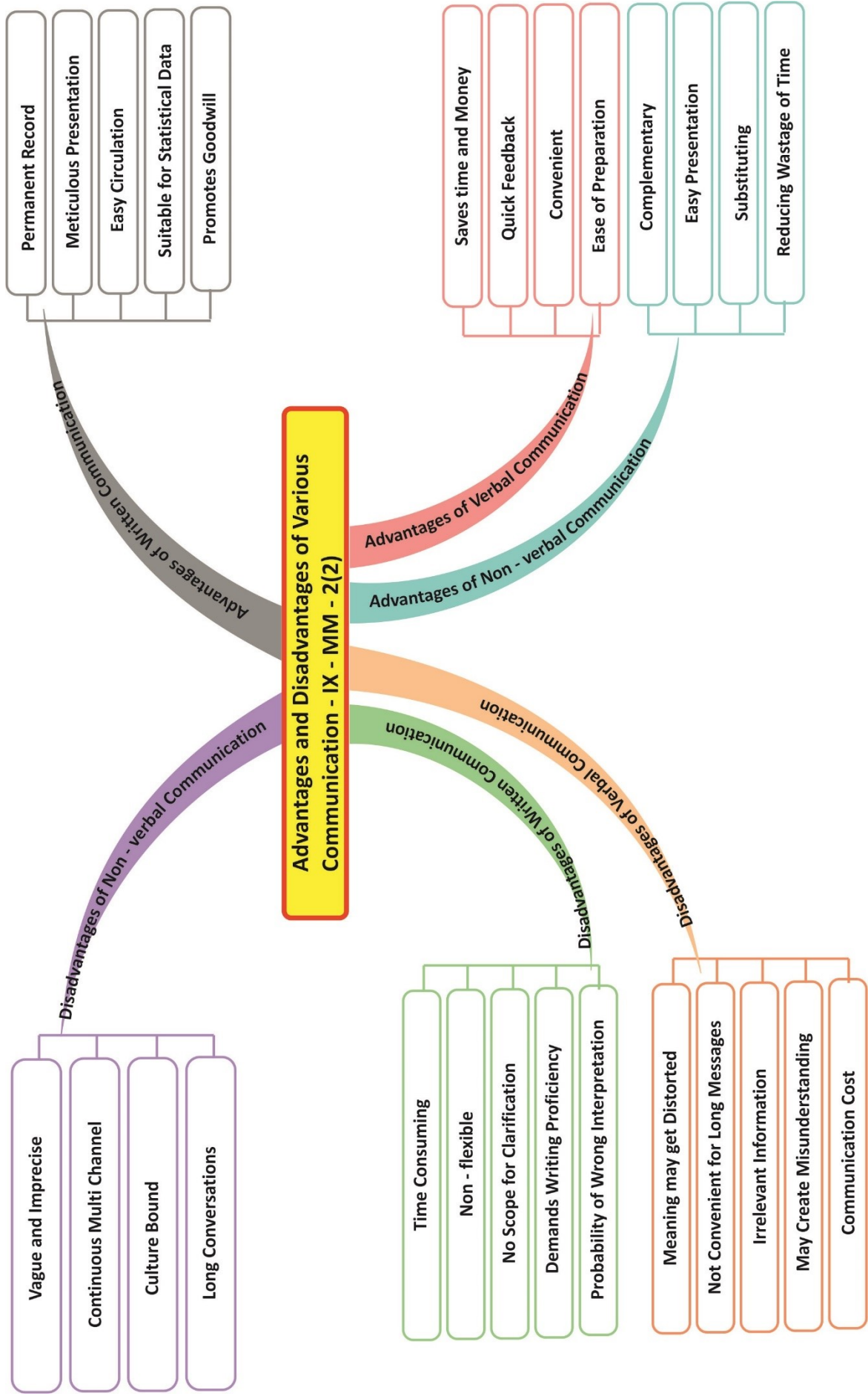
- Ask the students to turn the original statement to something funny to increase involvement.
- Ask the student to consider two instructions and make two statements.
- Students can use Google for reference.
- Ask one student at a time to present their statements.

Summary: A classroom environment relies heavily on the quality of communication taking place within it. As an instructor, taking steps towards improving the communication skills of your students will contribute positively towards your classroom climate. Students with effective communication skills will be more likely to contribute to class discussions, will be more productive members in group projects, and will ultimately gain more from their experience in the class. Learning and practicing writing skills help students to handle professional and social tensions.

References

- : Google
- : You tube
- : British council Library







1. Introduction

Self-Management refers to management of or by oneself; taking of responsibility for one's own behavior and well-being. It also means managing yourself with the people and resources around you. It aims at conducting oneself for the greater good of the individual, family and the society. A Self-managed person not only manages himself well but also behaves responsibly towards people around. Self- Management is needed by everyone around us and it is needed in all stages and walks of life. Self-managed person is like a tree who is taking care of itself and is also helping others to lead a comfortable life.

The reasons behind promotion of self-management are as follows:

1. We do not want the individual to be dependent on anybody else, when life poses dilemmas or difficult situations.
2. Self-management instills self-confidence in individual to deal with his or her life and develop ways to tackle his or her own problems.
3. Self-management provides a long term and sustainable mechanism of handling personal life.

Self-management is exhibited by our habits, manners, knowledge, intentions and our deeds. Good habits like brushing teeth, taking bath, eating balanced diet and getting up and sleeping at right time every day, helps us maintain good health and physique. Good manners like being kind and friendly, helping others, being a good listener, respecting, sharing, saying please and thank you, are key to maintaining good relations with others. Being responsible for knowledge acquisition and learning increases self-esteem and develops an inquisitive mindset and curious approach. Good intentions guide us to do the right things. They help us identify the right path and right approach to handle situations. A good deed done to help others is worth more than a million good words spoken. All these elements together exhibit, how well an individual manages himself.

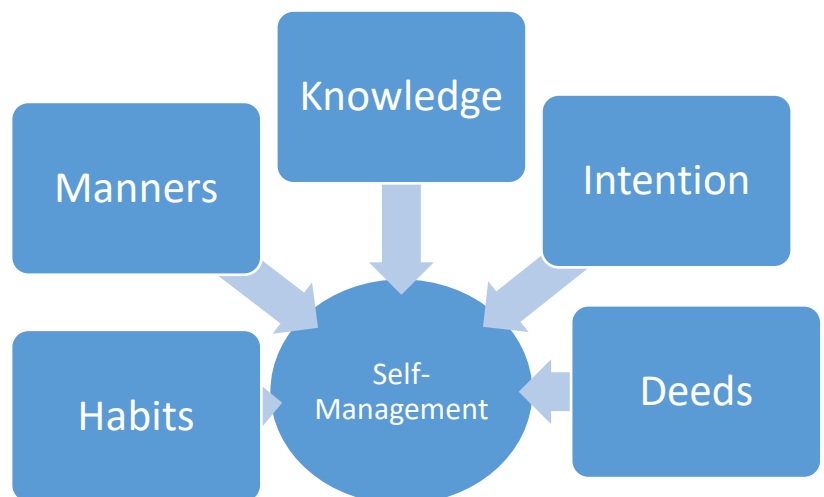
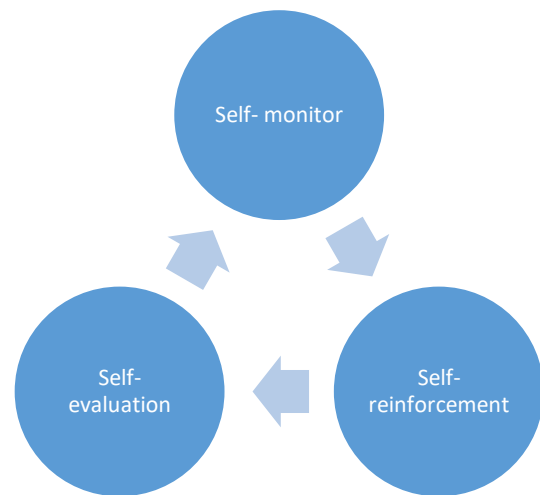


Fig 1: Exhibitors of Self-Management

2. Positive Results of Self-Management

Parents, teachers and guardians are not always along the child to guide him/ her. In that case principles of self-management guide the individual day in and day out, on how to respond to the environmental forces. These environmental forces for students can be the class schedule, assignments, competitions, exams, different students and their behavior etc. Students can sail through various situations in life comfortable by taking following benefits from self-management...

- It guides individuals to self-monitor their conduct and behavior
Students, once become aware that they are responsible for their behavior, they become proactive.
 - Prepares individual to complete the task independently.
 - Instills ownership to the task and the consequences amongst individuals.
- It helps in self-evaluation
Self-management makes individuals realize that they need to do course correction by themselves if they do not get desired goals. Once the goals are achieved as desired, it also motivates individuals.
 - Helps in setting individual goals
 - Directs evaluation of performance, objective resetting and enhances self-esteem.
- It leads to self – reinforcement of positive behavior
Self-management reinforces appropriate behavior of students as per the time, situation and people involved. It motivates individuals to take up right things and refrains from getting indulged into negative things, keeping long term consequences in focus.
 - Enforces self-learning for goal achievement
 - Self-reliance is enhanced and which reinforces the behavior.



3. Self-Management Skills

Following are the self-management skills that individuals should possess to enjoy the fruits of self-management.

3.1 Self Confidence

It refers to trusting one capabilities and potentialities to achieve the necessary goals, objectives and challenges in life and being worthy of leading a happy life.

- Initiating a new activity, like writing a blog can boost your confidence

3.2 Stress Management

It refers to a state of psychological tension and discomfort originating from unforeseen, difficult, confusing and challenging situations.

- Doing homework well in time, will give you more free time which you can enjoy without the shadow of homework hanging on you.

3.3 Independent Working

This typically means is when an individual is assigned a task(s), he/she takes ownership and doesn't require constant assistance or supervision to complete that task(s).

- Preparing for a test, a competition or learning something new on your own shall help enhance self-reliance.

3.4 Team Player

A person who conforms well with norms of a team and contributes to the attainment of the common goals in an efficient and effective way is called as a team player.

- While doing a group project, you can develop your team work skills as well as you can learn from someone else

3.5 Time Management

It is conscious effort to prioritize task according to the time at hand to increase productivity, efficiency and effectiveness.

- While studying, you need to plan for sports and relaxation activities. Proper time management for all of them will leave you with more positive energy.

3.6 Self-Motivation

Motivation is defined as a driving force responsible to do something. The students who are motivated to achieve their academic goal, their future is much better than others.

- Making lists and study notes in advance

3.7 Personality management

General neatness, grooming, appropriate dressing, apt verbal and non-verbal communication are components of good personality.

- Dressing in a prim proper way for school, friend's place or for playground creates good and favorable impression.



4. Self-Confidence

Realistic belief and trust of an individual in one's own judgement, capabilities and worthiness is self-confidence.

Factors that help in building self confidence

- Social
Interactions with family and social environment, like friends, relatives, teachers and media influences self-confidence of individuals. Development of confidence on self is a process which results from the experiences of individuals while interacting with others.
- Cultural
Cultural factors comprise of values, beliefs and customs. Indians give higher importance to family values, believe in the philosophy of "Vasudhev Kutumbhkam" and follow custom of celebrating Diwali. Conforming to cultural values, beliefs and customs enhances self-confidence.

- **Physical**
Physical self-efficacy, physical activity and social physique anxiety are found to be influencing self-confidence of individuals. Physical activity is found to be directly related to self-confidence. Physical self-efficacy refers to physical potential to complete a given task. Social physique anxiety is a concern amongst individuals about perceived evaluation of one's physical self by the society.

5. Self-Confidence Building Tips

Mind is like a fertile land, if you do not plant good thoughts there, weeds are bound to grow.

- **Getting rid of negative thoughts**
Going away from negative thoughts takes individuals closer to a peaceful positive mind. To travel away from negative thoughts, individuals need to involve themselves in an activity – take a walk, draw, sing, dance, chat, watch, read or talk.



- **Thinking positively**
Positive thinking brings brain to a peaceful stance and increases productivity and performance. When individuals start thinking positively, they feel happy from within and their self-confidence boosts up.
- **Staying happy with small things**
An individual who is full of gratitude for every small blessing in his life feels contented. Being thankful towards people and the world, instills confidence in individuals.
- **Staying clean, hygienic and smart**
Personal hygiene is the first key to a confident person. Keeping hair, teeth, fingers, body and skin clean and well maintained is an easy and effective way to be at best.
- **Chatting with positive people**
Interacting with positive people brings forth a fresh and progressive perspective to life. People in similar stages of life go through similar issues. Some positively handle these situations, and interacting with them shall help boost confidence.

A 1, A2



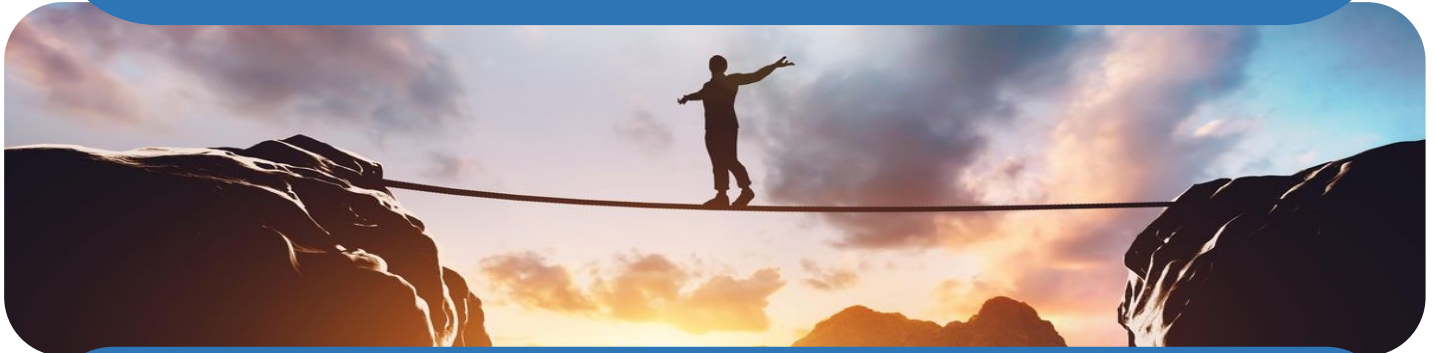
Lets' Do It !!

Hands on exercises to understand the concept better

2 sessions

Session A. Identification of self-management Skills(Strength and Weakness Analysis)

Strengths	Weakness	Steps taken to overcome weakness	Steps planned for overcoming weakness

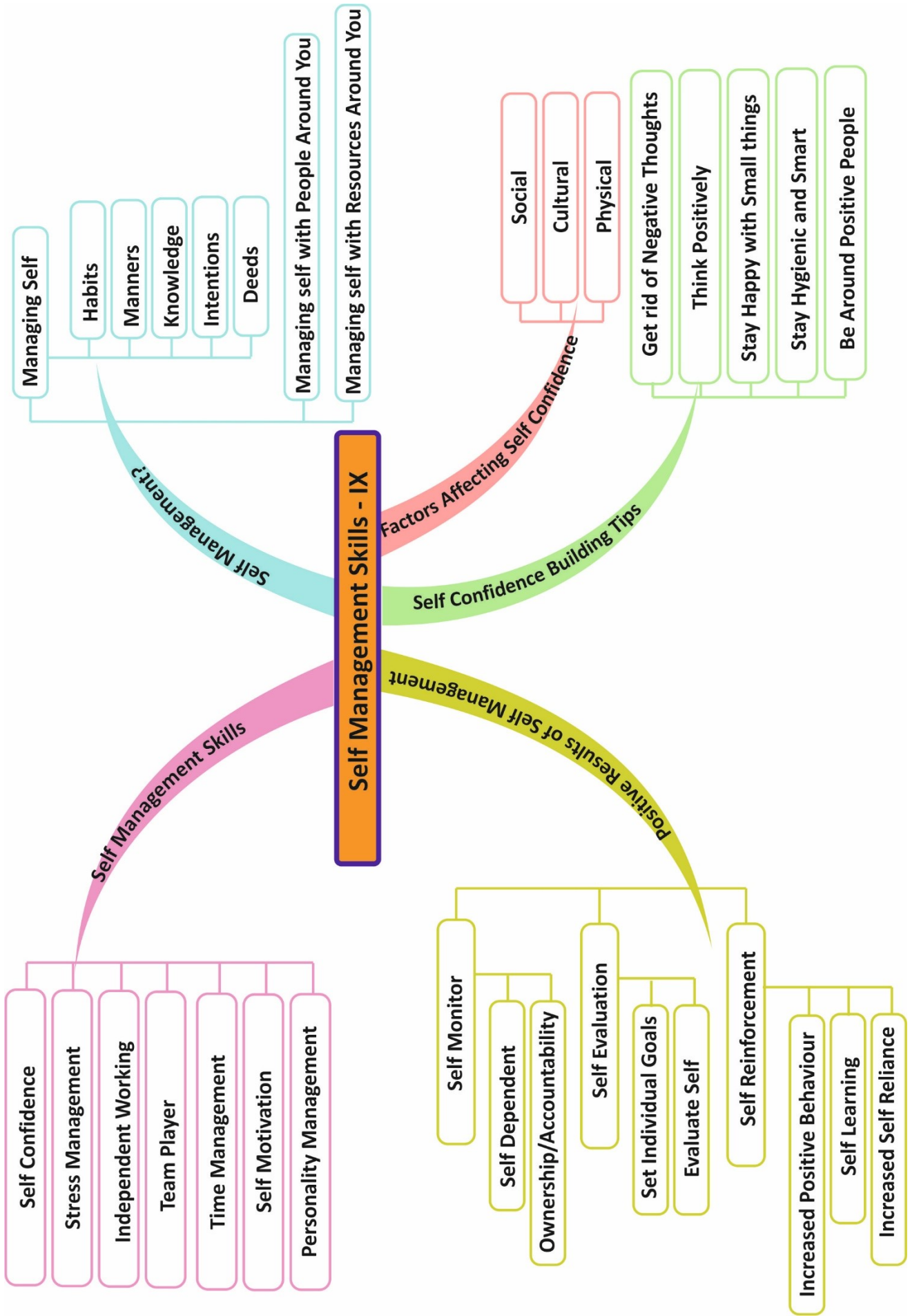


Session B. Skit on building self confidence

- a. Using positive metaphors/words
- b. Positive stroking on wake up and before going to bed
- c. Helping others and working for community

Suggested topics:

- a) The day my mother/ parents/teacher felt proud of me
- b) One beautiful/memorable day of my life





Unit 1. Role of ICT in Day-to-Day Life

1.1 INTRODUCTION TO ICT

Information Technology means creating, managing, storing and exchanging information. It includes all technologies that can be used to deal with information.

ICT stands for Information and Communication Technology which deals with the use of electronic media like computer, smart phone, iPad, etc. to store process, and retrieve data or information. Nowadays, ICT is one of the basic requirement of modern society. Even mobile devices, like, iPad, smart phones with Internet connectivity can be used to perform daily life tasks.



1.2 ROLE AND IMPORTANCE OF ICT IN PERSONAL LIFE AND AT WORKPLACE

Information Technology has become a part of everyday life. ICT applications are found in every field – education, health, business, design, manufacturing, science, environment. You can create a project report, do office work, send messages, read books, manage daily planner, play games, listen to music, watch movies, pay bills, book tickets, buy products, and the list is endless.

1.2.1 ICT at Home

A computer can be used at home to play games, search information, listen to music, watch movies, send or receive email, maintain household accounts. A device with internet connection can be used to do online shopping, pay bills, do e-banking etc.



1.2.2 ICT in education

ICT for education refers to the development of information and communications technology specifically for teaching/learning purposes.

ICT has also become integral to the teaching-learning process. ICT, to some extent, has replaced traditional chalkboards with interactive digital whiteboards. It is used for teaching-learning and assessment. Teach resources for the teachers are

available.

Students are also using their own smart phones or other devices for learning during class time. Online assessment is also helpful for students.

The concept of “flipped classroom” is becoming popular in many countries where students watch lectures at home on the computer and use classroom time for more interactive exercises.

Using ICT tools can lead to

- higher order thinking skills
- provide creative and individualized options for students to express their understandings
- Students are better prepared to deal with ongoing technological change in society and the workplace.

Some of the advantages of ICT in education are:

- Complex topics can be easily explained to the students with the help of pictures, videos, presentations, etc.
- Images and videos used for teaching improves the retention memory of the students.
- Presentations can make the lessons interesting.
- Practical demonstration can be given to the students.
- If the teaching process in the class is interactive, it will make the lesson more enjoyable.
- An e-learning program allows students to learn at their own pace, at any convenient time, and from any place.

1.2.3 ICT in Healthcare

ICT plays an important role in healthcare. Some of the uses of ICT in health care are:

- Through the right communication media, a doctor can easily deliver treatment and care to the patient who is located far away. Doctor can also continuously monitor the patient’s history, diagnostic report, and track the current health



condition. The Doctor can also interact with patient, recommend to take medical examination and prescribe medicine.

- Using the ICT tool or a suitable communication system, government can make efforts to create awareness among the public about the communicable diseases, prevention measures and various current diagnostic & etc.
- ICT in healthcare research helps to find the possible prevention measures to eradicate and reduce the spread of diseases.
- Through ICT, the traditional healthcare systems can be eliminated and new models can be formed for effective quality care.
- Hospitals can use different electronic media to store medical data. This helps to retrieve the information easily. This data can be transferred to the patient or to the Doctors for consultation.
- Computer based machines are used for MRI, CT-scan, ultrasound are done in hospitals, diagnostic centres, to diagnose the diseases.
- Life support systems are provided to the patients
- You can search information on any disease, medicines, etc. on the internet.

1.2.4 ICT in Governance

ICT in governance means using Internet, other electronic media by the central and state governments, by local administrative bodies to improve the efficiency, transparency, efficiency of the government. Many government services are available online. Electronic voting for elections has replaced the traditional voting slip.

ICT in governance can be help:

- Deliver government services efficiently
- E-governance sites enable people to perform various tasks such as filling a form, applying for passport, paying bills, property tax, etc. even sitting at home.

1.2.5 ICT in Business

ICT in business can be used for the following purposes:

- Keep records of the stock
- Prepare accounts and balance sheets
- Maintain database of staff and customers
- E-commerce enables people to buy and sell products online. This service is available 24 x 7.
- E-banking facility helps to make banking transactions at any time of the day .



1.2.6 Impact of ICT on society

ICT has affected the society in both positive and negative way. We have already discussed the use of ICT in various fields.

ICT has divided the society into two groups:

1. Persons who can do their personal and professional work efficiently. They are efficient in using services like, e-banking, e-learning, e-governance sites, etc.
2. People who do not have access to a computer and internet. They also do not have knowledge to use facilities available on the internet.

This has resulted in digital divide, which refers to the gap between people who have access to latest information technologies, like, computer, smart phones, internet, ipad, etc. and have knowledge to use them and people who do not have access to use these devices.

1.3 ICT in our daily life (examples)

ICT has a great impact in our daily life. Some of the uses of ICT in our daily life are given below:

- We can read newspapers online.
- We can get connected with our friends, relatives or even family members far away from us using email, messenger, video conferencing etc.
- With the introduction of video conferencing, business meetings are now easier.
- Nowadays people use mobile phone apps to meet and connect with new and old friends.
- Social networks like Facebook.com have played a big role in connecting both old and new relationships.
- We can access a full library of educational material via a mobile app or website on any smartphone or iPad.
- Technology has also made the buying and selling of goods and services flexible and a lot safer.
- Most banks now offer online banking facilities. People make use of this service daily to manage their finances.
- Most businesses use online banking facility to pay employees and transfer money.

Lets Try It

Discuss the role of ICT in different fields.

Worksheet

1. Name any three latest information technologies.
2. What do you mean by digital divide?
3. How is ICT helpful in education?
4. What is the use of ICT in business?
5. What is the role of ICT in e-governance?

1.4 ICT Tools

ICT tools are devices that are used in Information and communication technology. For example, computer, smart phone, radio, television, iPad, tablets, etc.

Some of these are discussed below:

1.4.1 Mobile

Mobile phones are the easiest and simplest way of communication. It is small in size, lightweight and portable. You can stay in touch with your friends, relatives, anytime and anywhere.

Mobile phones are useful in studies. Students can access the internet on their mobile phones and get knowledge on any topic.

You can even create documents, make presentations, etc on your smart phones as you do on your computer.



1.4.2 Tablets



Tablets are small personal computers with a touch screen. Tablets allows user to input data and instructions through keyboard or mouse. Learning software called apps can be downloaded onto tablets. You can also watch videos relevant to your subject.

1.4.3 Radio

Radio is the oldest tool used to provide entertainment and information to people. You can listen to music, radio shows, etc. on radio.



1.4.4 TV



Television is another important ICT tool. You can watch music, view programs, etc. on television.

1.4.5 Newspaper

Newspaper is another most important ICT tool. News related to all the issues, national, international, sports, space, etc, are printed in newspapers.



1.4.6 Email

Email is the most common way of communication in today's world. It is the official way of communication. Some of the advantages of using email are:

- You don't have to pay anything extra for sending or receiving email. You just pay for the internet connection.
- You can send bulk mails
- The receiver may not be online when you send the email.
- You can send documents, presentations, images, videos, etc. as an attachment to email.
- When you send an email, it reaches the receiver at any part of the world in few seconds.



1.4.7 Interactive White Boards (Smart Boards)

These boards allow to project computer. Also handwritten notes can be taken on the board and saved for later use.

1.4.8 E-readers

E-readers are electronic devices that can hold hundreds of books in digital form. E-readers are portable, have a long battery life.



Lets try it

1. Discuss the role and importance of ICT in personal life and at workplace.
2. Discuss use of various ICT tools.

Worksheet

1. Name any three ICT tools.
2. Name the electronic device that can hold hundreds of books in digital form.
3. Mention any three advantages of email.
4. Mention use of tablets.

Session

Prepare poster or collage to show the role of ICT at workplace



Unit 2. Identify the Various Components of Computer System

2.1 BAISC COMPONENTS OF COMPUTER SYSTEM

A computer is an electronic device that has devices to enter data, store data and process raw facts and figures according to the given instructions and give the desired result on an output device.

Data: Data refers to raw facts and figures. For example, 123, "English", etc.

Information: Information refers to processed data. For example, total marks and percentage of a student.

2.2 HARDWARE AND SOFTWARE

A computer system comprises of hardware and software.

- **Computer hardware** – Physical parts of a computer such as Input devices, output devices, central processing unit and storage devices are called computer hardware.
- **Computer software** – Software are the programs or applications that run on computer. For example, MS Word, MS PowerPoint, Operating systems, etc.

2.2.1 Computer hardware

The physical components of a computer system are called hardware. A computer basically consists of following physical components:

- Input unit
- Processing unit
- Storage unit
- Auxiliary storage
- Output unit

<A> Input Devices

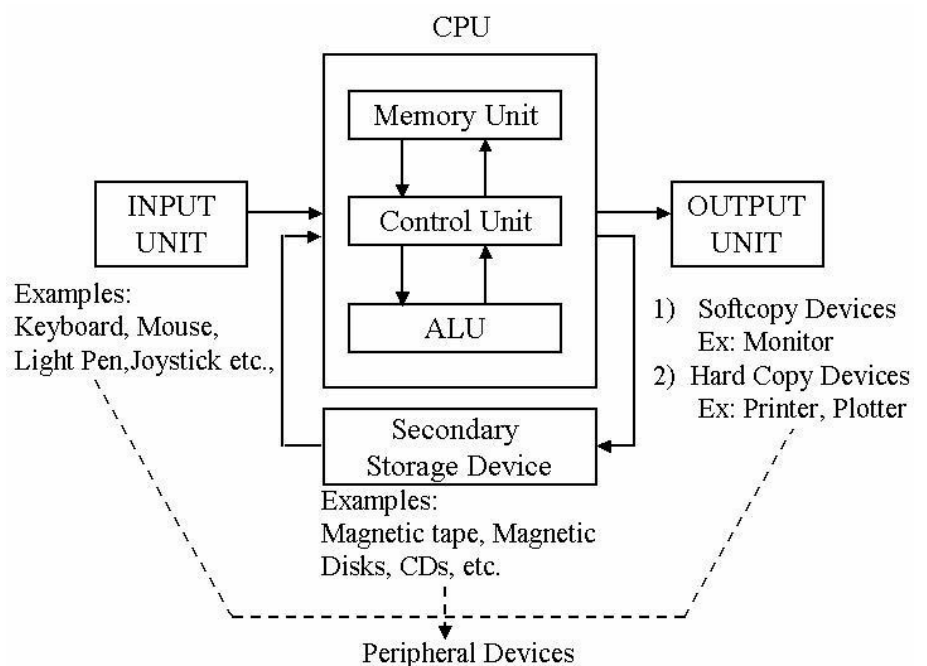
Input devices are used for entering data or instructions into the computer.

 The Central Processing Unit (CPU)

The Central Processing Unit is the brain of the computer system.

Functions of Central Processing Unit are:

- It controls the sequence of operations within the computer
- It gives commands to other parts of the computer
- It controls the use of main memory for storing data and instructions



It consists of the following main units:

- Arithmetic and Logic unit (ALU)
- Control Unit (CU)
- Main Memory Unit

<C> Arithmetic and Logic Unit (ALU)

All the calculations and comparisons are done in this unit.

The ALU performs all the following arithmetic operations:

- + (addition)
- (subtraction)
- *(multiplication)
- /(Division)
- ^(Exponent)

The ALU also performs the following logical operations:

- < (less than)
- <(greater than)
- <= (less than or equal to)
- >= (greater than or equal to)
- <> (not equal to)

<D> Control Unit

The control unit controls the flow of data from the input devices to memory and from memory to output devices. It does not process the data.

When the processing begins, the first instruction of the program is selected and fed into the control section of the primary storage area. It is then interpreted there and then the signals are sent to other components to perform the necessary action.

The next instruction, is then selected, interpreted, and executed. This is continued till all the instructions are processed.

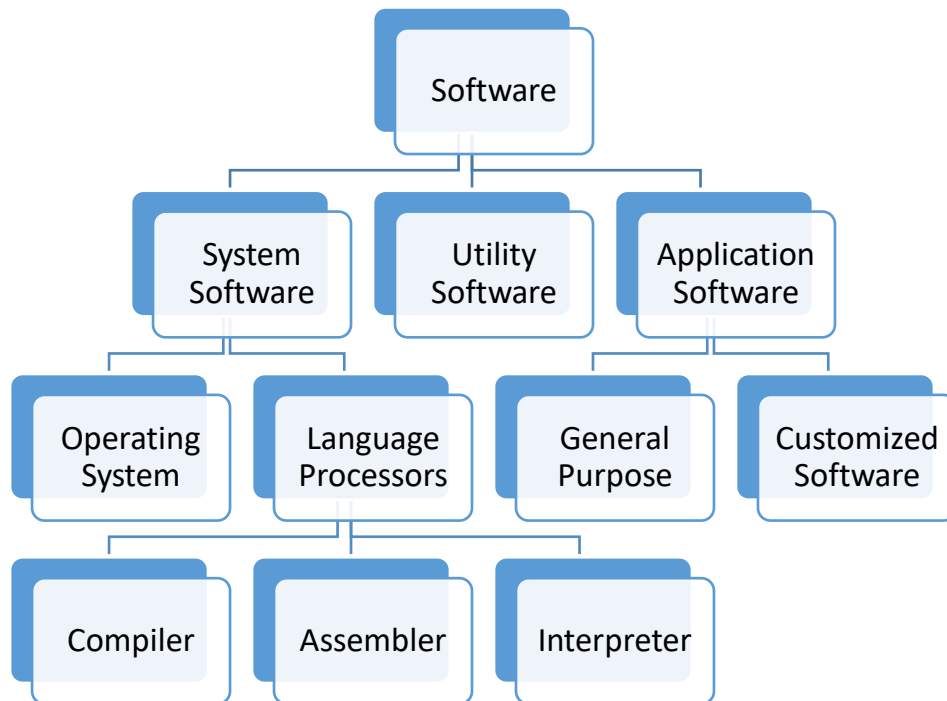
<E> Registers

These are temporary storage areas found in CPU of modern computers.

2.2.2 Software

Software is a set of computer programs that perform a particular task. Following are the categories of softwares:





<A> System Software

System software is a set of one or more programs designed to control the operation of a computer system.

Operating systems and language processors come under the category of system software.

Operating System

Operating system is a master control program that runs the computer. When the computer is switched on, operating system is the first program loaded into the computer's memory.

Examples of operating system are Windows, UNIX, MS-DOS, Mac OS, Solaris, etc.

Language Processors

A computer understands instructions in the form of machine code, i.e., 0 and 1. The programs are written in English like high level language called source code. The source code must be converted into machine language in order to be executed. The translator program that is used to convert source program written in high level language to machine code is called language processor. The program translated into machine code is called the object program.

Language processor is of three types:

1. **Assembler**:- It is a program that translates an assembly language program into machine language.
2. **Compiler**:-It is a program that translates a high-level language program into machine language. For example C++ compiler.
3. **Interpreter**:-It is a program that translates a high-level language into machine language program line by line. For example, Visual basic Interpreter.

<C> Application Software

Application software is a computer program that is designed to perform a certain type of work. This type of software pertains to one specific application. For example, software written to calculate salary of the school employees cannot be used to prepare school result.

Application softwares can be classified as General purpose software and Specific purpose application software.

General purpose application software includes word processing software, like, Microsoft Word., spreadsheet software, like, Microsoft Excel, etc.

Specific Purpose Application software

Specific purpose application software are the softwares that perform a particular task. Examples of specific purpose application software are Accounting management software, Reservation system, Payroll system, etc.

<D> Utility Program

A utility program is used to perform maintenance work on a system or on the components of the computer.

Examples of Utility program are;- anti-virus software, file management programs, etc.



Antivirus software:- This program helps in detecting and removing viruses. For example, Norton antivirus, McAfee virus scan, etc.

File management tools:-These tools help in storing, searching, and sorting files and folders on the system. For example, Windows Explorer.

Compression:- This program helps in compression of large files so that they take less storage space. For example, WinZip.

Disk Management Tools:- These programs include

- **Disk Cleaner:-**This utility scans for the files that have not been used since long. These files may be occupying large amount of space. It prompts the user to delete such files to create more disk space.
- **Disk Defragmenter:-**It rearranges the files and free space on the computer so that files are stored in contiguous and free space is consolidated in one contiguous block. This speeds up the disk access.

- **Backup**:- backup means making a duplicate of the files and data stored on the computer. This program is used to take backup copy of the data. In case the original data is lost, the backed up data can be used.

Lets Try It

1. Discuss various components of a computer system.
2. List few hardware devices.
3. List names of few softwares.
4. Identify and name application software(s) installed in your computer.
5. Identify and name anti-virus software installed in your computer.
6. Identify few Utility softwares in your computer system.
7. Discuss different types of softwares.

Worksheet 1

1. What is the difference between system software and application software?
2. Name any three disk management tools.
3. Name the program that rearranges the files and folders in the computer system.
4. Give example of file management tool.
5. Name the types of language processors.



Worksheet 2

1. Give full form of the following:
 - a. ALU
 - b. CU
 - c. CPU
2. Name the unit of computer that controls the flow of data from input device to memory.
3. Name logical operations that can be performed in ALU.
4. Identify the following arithmetic operations:
 - a. *
 - b. ^
 - c. /
5. Which unit of computer is called the brain of the computer?
6. Identify as hardware or software.
 - Monitor
 - MS Word
 - Operating system
 - Mouse
 - Keyboard
 - MS PowerPoint
7. Differentiate between hardware and software.
8. What is the difference between data and information/
9. Name the unit of computer where arithmetic operations are performed.
10. Name any three input devices.

2.3 PRIMARY AND SECONDARY MEMORY

The storage unit consists of the following components:

- Primary storage
- Temporary Storage

2.3.1 Primary Storage

The primary storage is also called the primary memory. It is directly accessible by the CPU. It can be:

- RAM (Random Access Memory)
- ROM (Read Only Memory)

Functions of primary memory are:

- Here data is fed and held until it is ready to be accessed.
- It is used to hold the data being processed and the intermediate results of processing.
- It holds the result of the processing.
- It holds the processing instructions.

<A> Memory Units

Units of computer memory are:- Bit (Binary Digit), Byte (Kilobyte, Megabyte, GigaByte, TeraByte, PetaByte, ExaByte, ZettaByte, YottaByte)

The elementary unit of memory is a bit. A group of 4 bits is called a nibble and a group of 8 bits is called a byte.

One byte is the minimum space required to store one character.

1 Byte = 8 bits

One kilobyte (KB) = 1024 bytes

One Megabyte (MB) = 1024 KB = 1024 x 1024 bytes

One Gigabyte (GB) = 1024 MB = 1024 x 1024 x 1024 bytes

One Terabyte (TB) = 1024 GB = 1024 x 1024 x 1024 x 1024 bytes

One petabyte (PB) = 1024 TB = 1024 x 1024 x 1024 x 1024 x 1024 bytes

One ExaByte (EB) = 1024 PB = 1024 x 1024 x 1024 x 1024 x 1024 x 1024 bytes

One ZettaByte (ZB) = 1024 EB = 1024 x 1024 x 1024 x 1024 x 1024 x 1024 x 1024 bytes

 Random Access Memory (RAM)

RAM is used to hold active information of data and instructions. Information in RAM is stored in random order, that is why it is known as Random Access Memory.

It is a temporary memory. When power supply is switched off, the information stored in RAM is lost, so it is also known as volatile memory.

It is also known as read/write memory as information can be read from RAM and also written onto it. Information stored in RAM may be erased or written over.

<C> Read-Only memory (ROM)

ROM is a part of computer's main memory. It is used to store the instructions provided by the manufacturer to check basic hardware and to load operating system from appropriate storage device.

The storage of data and instructions in ROM is permanent until it is written over.

The contents of the ROM are not lost when power supply is switched off. That is why, ROM is called non-volatile memory.

2.3.2 Secondary Storage

Since the computer's main memory stores the data and information temporarily, the secondary memory is used. Secondary memory is used to store bulk of information.

The information stored in secondary memory is not lost, so it is also a non-volatile memory. These devices are non-volatile as data is stored in these devices till it is deleted.

Secondary storage devices include hard disk, CD, DVDs, Pen drive , etc.

2.4 INPUT, OUTPUT AND STORAGE DEVICES

<A> Input devices

Input devices are used for entering data or instructions into the computer.

Another most important device that is commonly used is the computer mouse. It is a pointing device that is used to point to an object or menu option on the computer screen. It can also be used to open a document or a software. Mouse can also be used to move the selected object by using drag-and-drop method.



Scanners are another important hardware devices that are used to convert a picture or text in a book or page in a digital form.

 Output Devices

The output unit comprises of devices such as Monitor, Printer, speaker, etc. to display information to the user.

<C> Storage Devices

All computers have a hard disk drive installed in them. It is used to store files of Operating system, softwares and other files. A computer cannot function without this installed hard disk drive.



Nowadays, external hard disk drives are used to take backup of data on the computer. External hard disk drives are available in different sizes and storage capacity. These are portable and can be moved from one place to another easily.

Lets Try It

1. Discuss different secondary storage devices, their uses and their storage capacities.
2. Name a few external storage devices.
3. Discuss various output devices and their uses.

Worksheet

1. Give full form of the following:
 - a. RAM
 - b. ROM
2. Which memory- RAM or ROM is called the volatile memory and why?
3. Name the parts of primary memory.
4. What is one byte?
5. Complete the following:
 - a. 1 KB= _____ Bytes
 - b. 1 GB = _____ bytes
6. Arrange in increasing order of storage capacity.
TB, MB, GB, KB, Byte
7. Name the memory which is also known as read/write memory.
8. Name few output devices.
9. Write three functions of primary memory.
10. Name the elementary unit of memory.

Unit 3. Identify Various Peripheral Devices

3.1 VARIOUS PERIPHERAL DEVICES AND THEIR USES

A peripheral device is an internal or external device that connects directly to a computer but does not contribute to the computer's primary function, such as computing. It helps end users access and use the functionalities of a computer.

For example, a computer mouse, keyboard, monitor, printer and scanner.

Different peripheral devices, fall into following three general categories:

1. Input devices, such as a mouse and a keyboard
2. Output devices, such as a monitor and a printer
3. Storage devices, such as a hard drive or flash drive

3.2 EXAMPLES OF PERIPHERAL DEVICES

3.2.1 Input Devices

<A> Keyboard



A keyboard is a device used to enter data directly into the computer. First six alphabets of first row of alphabet keys contains alphabets Q, W, E, R, T, Y. That is why it is known as QWERTY keyboard.

Different types of keyboards are available but keyboards with 101 keys is the most popular one.



Keyboard can be wired or wireless.

A wired keyboard is attached to the CPU with a wire. Earlier there were PS2 keyboards. PS2 was a type of port for the keyboard. Nowadays, there are USB keyboards.



A wireless keyboard uses radio frequency or Bluetooth technology. A wireless keyboard can be attached to different gadgets like – PC, smart phone, tablet or laptop that supports wireless technology. There are two parts of wireless keyboard – a transmitter and a receiver. The transmitter is attached to the keyboard and the receiver is attached to the CPU or the

parent device.

Multimedia keyboards are very popular as they have keys to control the media. It includes additional keys to play, pause, stop, etc for playing the music. There are keys for controlling the video playback also.





Laptops have inbuilt keyboard but they are very delicate.

A virtual keyboard is not a physical keyboard. It is not a hardware but a software. You must have used a full touch Smart phone. The keypad of your Smartphone is an example of a virtual keyboard. In Windows operating System, there is an On Screen keyboard, which is an example of a virtual keyboard. It can be made to appear when required.



Different types of keys of the keyboard are:

- **Alphanumeric keys** are used to type alphabets, numbers and special symbols like \$, %, @, A etc.
- **Special keys** such as Shift, Ctrl, Alt, etc. are used for special functions.
- **Function keys** such as F1, F2, F3 etc. are used to give special commands and these commands may be different for different softwares.
- **Cursor Movement keys.** These keys are used to move the cursor in a document. These include the arrow keys, PAGE UP, PAGE DOWN, etc.

Numeric keypad. The numeric keypad is present to the right of the keyboard and can be used to enter numbers quickly.

 Mouse

A mouse is a pointing device and is used to move mouse pointer on a computer monitor. When you move the mouse on a flat surface, the mouse pointer on the computer monitor moves in the direction of the mouse's movement.



A computer mouse may be connected to a computer using wire and connected to PS/2 or USB post. Some of the computer mouse are wireless.

A mouse usually has two buttons with a scroll wheel in the center.

When you move the mouse, the mouse pointer moves in the same direction on the screen.



Earlier, mechanical mouse were used. These had a hard rubber ball that rolled when the mouse was moved. There were sensors inside the mouse that could detect the movement and translate it into information that was interpreted by computer.



Nowadays, we have Optical mouse that uses an LED sensor to detect the movement of the mouse on the tabletop and send the information to the computer.

Cordless mouse are also available. These need batteries to give the power required by the mouse.

A laptop has a touchpad as a mouse.



<C> Joystick



A Joystick is used to play games on the computer. It consists of a vertical stick that is moved to control objects on the computer screen.

<D> Light pen

A light pen is a pointing device. It is used to draw directly on the screen. It can also be used to point to an object or option directly on the computer screen.



<E> Graphics Tablet



A graphic tablet is used to create digital drawings by hand drawing image on a flat surface called the tablet using a special pen. This special pen is called stylus.

<F> Scanner

A scanner is a device that is used to convert text or image into a digital file.



<G> Barcode Reader

A barcode consists of a combination of thick and thin vertical lines found on products. The bar code identifies the product and the manufacturer. These barcodes can be read by a device called Barcode reader.

<H> Microphone

A microphone is a device used to record your voice and save it in the form of a digital file in the computer.



Let's Try

1. Go to a grocery shop/ store. Ask the accountant to demonstrate the use of barcode reader to read the barcode. Note what happens/appears on the computer screen when he clicks the barcode.

Worksheet

1. A peripheral device can be _____ or internal.
2. Different categories of peripheral devices are:

3. Name the device used to enter data directly into the computer. _____
4. Name the device used to play games on the computer. _____
5. What is the name given to thick and thin lines on any grocery item called? Name the device used to read these lines.

3.2.2 Output Devices

<A> Computer Monitor

A computer monitor, resembles a TV screen and can display both text and images. The output displayed on computer screen is called the soft copy.

The size of a computer monitor is measured in diagonal length of the screen. Computer monitors are available in different sizes, 14 inch, 15 inch, 17 inches, etc.



The monitor has a grid of tiny dots called pixels. Information on monitor is displayed using these pixels. There is a graphics card in the monitor that helps monitor to display the information. Quality of the picture depends of the resolution of the computer monitor. Higher the resolution, i.e. more number of pixels, better is the quality. Nowadays, monitors with resolution 1024 x 768 are widely used.

The first computer monitors used Cathode Ray tubes. They were big in size.



Then came the LCD (liquid Crystal Display) monitors. These were thinner and lighter than Cathode Ray Tube monitors.



The LED (Light -emitting monitors) are very popular.

Touch screen monitors are becoming very popular these days. In Touchscreen Monitors of computers, Smartphones, and Tablets, you simply have to touch the screen to activate a menu option or perform a specific function. Even ATM's have touch screen monitors.



 Printer

A printer is a device used to print the files stored on the computer on paper. The output produced on paper is called the hard copy.

Commonly used printers are:

- Dot matrix printer
- Inkjet printer
- Laser printer

Dot matrix printer

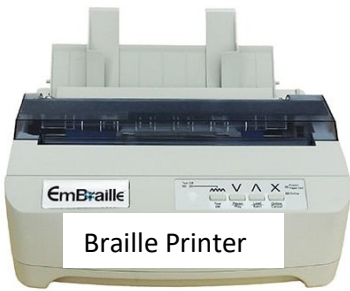
It is the most commonly used character printer, i.e, it prints one character at a time. Most of the dot matrix printers are bidirectional, i.e., they print one line of text from left to right and then the next line from right to left.



Inkjet Printer

These printers use a continuous stream of ink drops to print on paper.





Braille Printer

Laser Printer

These printers print one page at a time and are very fast.

Braille Printers

A Braille Printer or embosser produces Braille printouts, i.e., patterns of raised dots of computer files. It works with software that translates text to Braille.

<C> Plotters

A plotter is a device used to print large size engineering and architectural drawing on a paper or a polyester film.



<D> Speaker



A speaker is a device used to listen sound from the computer. Speakers convert electrical current into sound.

Some computers have built-in speakers while others have external speakers.

Lets Try It

1. Discuss various input and output devices and their uses.
2. Attach a speaker to your computer and listen to the sound file you created in the previous session.
3. Identify with the help of your teacher, the type of printer in your computer lab.
4. Teacher can open any document on computer and demonstrate to the students how to take a print out.

Worksheet

1. Name the device used to listen sound from the computer.
2. Name the printer that prints one page at a time.
3. Differentiate between hard copy and soft copy.
4. Name the printer that prints one character at a time.
5. Name the printer that uses a continuous stream of ink drops to print on paper.

3.2.3 Storage Devices

<A> CDs/DVDs

Compact Disc (CD) and Digital Versatile disc (DVD) are optical media that is used to record data from computer. Data can then be read from the CD. To read data from the CD, we need to have a CD Drive in our computer.



There are two variations of CD-

- CD-R and
- CD-RW



In CD-R, data once recorded can be read only and cannot be erased. In CD-RW, previously recorded data can be erased and new data can be recorded.

Both CD and DVD look same in appearance but DVDs can hold much more data than CDs.

To read data from the DVD, we need to have a DVD drive in our computer system. We can read a CD using DVD drive but we cannot read a DVD using CD drive.

A CD can store upto 700 MB of data whereas a DVD can store 4.7 GB of data.

 Pen Drive/Flash Drive

A pen drive is a very small and portable device used to store data from a computer. It can also be used to access and transfer data. Pen drives are available in various capacities- 1 GB, 8 GB, 16 GB, 32 GB, etc.



<C> External hard disk



An external hard drive is a storage device located outside of a computer that is connected through a USB cable or wireless connection. An external hard disc has a high storage capacity compared to flash drives and are mostly used to take backup of computer files and other important data. External hard disk of capacity upto 1TB and 2TB are available.

Let's Try It

1. Discuss the need of secondary storage devices.
2. Discuss use of various secondary storage devices.
3. Insert a CD in CD/DVD drive in your computer system. Teacher should demonstrate how to view the contents of the CD/DVD?
4. Open Paintbrush software. Draw any figure using tools available in Paintbrush. With the help of your teacher, save the file in your pen drive.

Worksheet

1. Name any two external storage devices.
2. Which has more capacity- CD or DVD?
3. If you have to take your project from home to school in a digital form, which storage device is best suited for this purpose/
4. What is the use of external hard disk?
5. Which device has more storage capacity?
 - a. 16 GB pen drive or a CD
 - b. 16 GB pen drive or 1 TB hard disk

3.3 USE ANY TYPING TUTOR SOFTWARE TO PRACTICE TYPING AND LEARN USING DIFFERENT KEYS OF THE KEYBOARD.

Tux Typing tutor is a software used to teach typing to children and even adults. Regular practice will help you to increase typing speed and reduce the mistakes while typing.

Before learning typing, you should learn how to place your fingers properly on the keyboard.

Before typing we should always place our fingers on the second row of alphabet keys.

Proper Finger Placement on the Keyboard

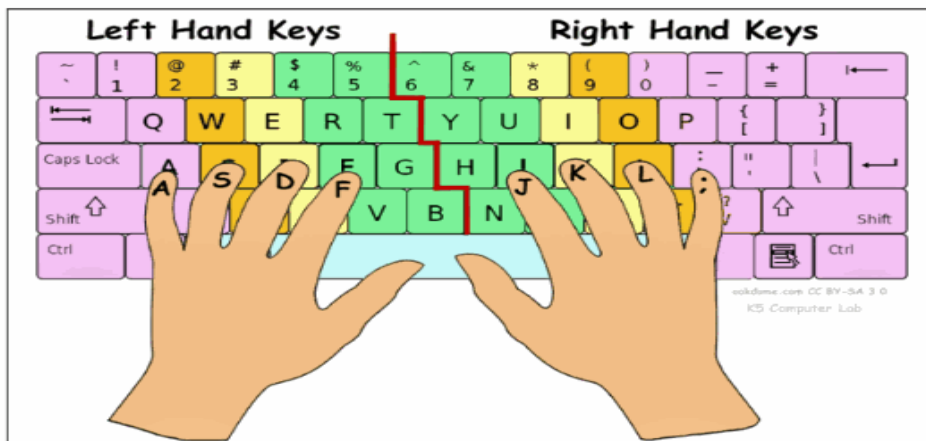
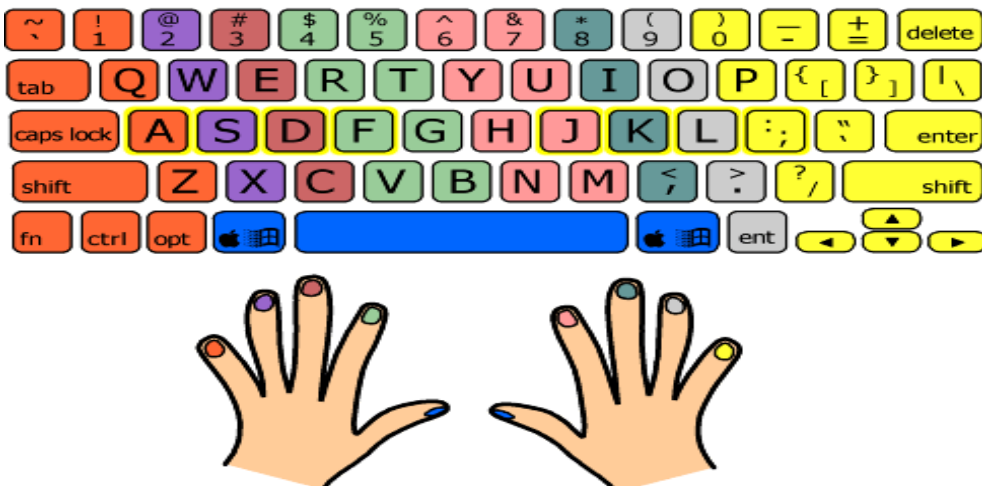


Fig Placing fingers

The figure shown below shows which finger is used for which key.



- a. Start Tux Typing
- b. The Tux Typing main window appears (Fig 1).



- c. Click Lessons. The Lessons mode window appears (Fig 2).

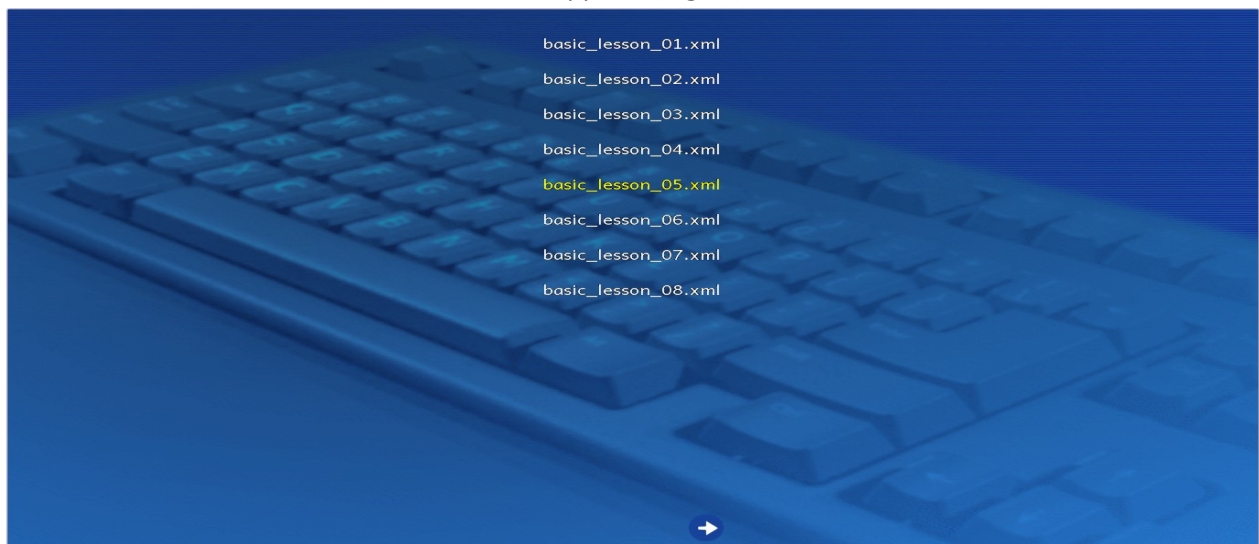


Fig 2 Lessons mode window

- d. A number of lessons are available. Start from lesson 1 and then try other lessons.

3.4 Recording your voice using Sound Recorder in Windows 7.

- a. Make sure that microphone is properly attached to the computer.
- b. Select **Start** ➤ **All Programs** ➤ **Accessories** ➤ **Sound Recorder**.
- c. The Sound Recorder window appears (Fig 3)

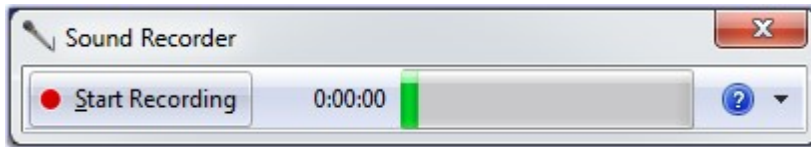


Fig 3 Sound recorder

- d. Click **Start Recording** button to click start your recording. (Fig 4)

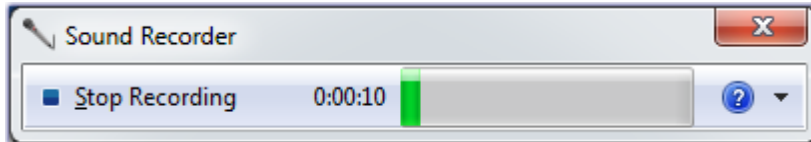


Fig 4 Recording

- e. To finish recording, click Stop Recording button.
- f. The Save As dialog box appears (Fig 5)

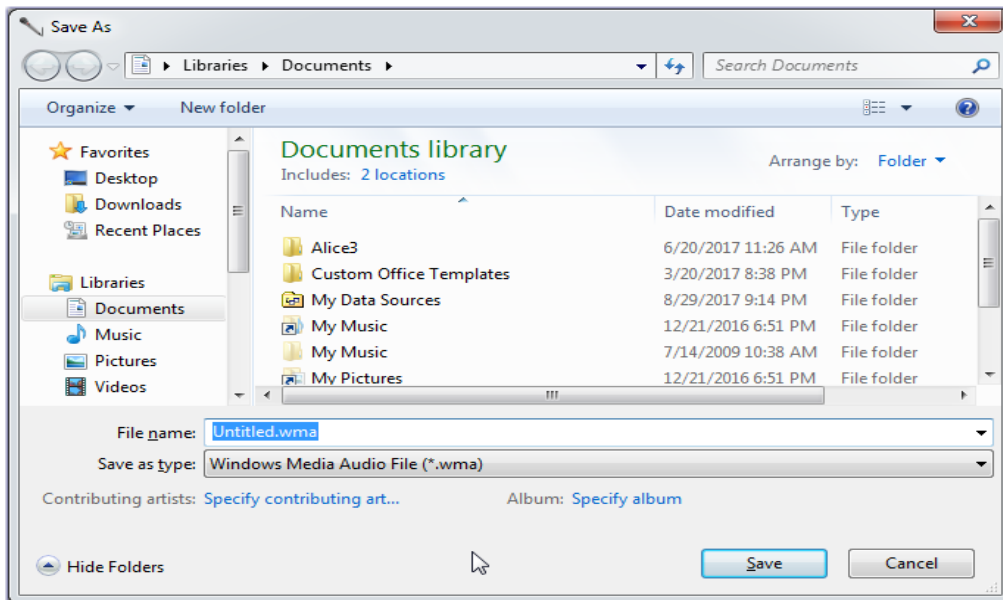


Fig 5 Save As dialog box

- g. Select the drive and folder. Type the filename and click Save button.



Unit 4. Performing Basic Computer Operations

4.1 PROCEDURE FOR STARTING AND SHUTTING DOWN A COMPUTER

As we all know that computer is a very useful machine. It is very important to properly start the computer and after finishing the work, it needs to be properly shut down. If the power of the computer is switched off, and the files you were working on were not closed, the files and the operating system may get corrupted.

4.1.1 Starting a Computer

The steps to start a computer are given below:

1. Press the Power button of the computer.
2. When you turn on the computer, lights on the keyboard may blink for a while and you may hear a beep sound. This indicates that the Power-on-self test (POST) has started. POST is a sequence of tests that determines if the computer hardware like, keyboard, RAM, disk drives, etc are working correctly. The monitor may display a message, if a component is not functioning.
3. After the POST, the computer starts the operating system. The process of bringing up the operating system is called booting. The computer knows how to boot because the instructions of booting are built into a chip called BIOS (Basic Input/ Output System).
4. When the operating system starts, say Windows 7, Windows welcome screen appears. The first screen that appears after Windows 7 is successfully loaded is called desktop.
5. Now, you can perform various tasks on the computer.

4.1.2 Shutting down the computer

Before shutting down the computer, you need to save and close all the files and applications. You can completely turn off the computer, you can make it sleep or hibernate it.

To turn off the computer completely, click the Start button, and then click Shut Down.

If you choose Sleep option, the system uses very little power, the computer starts up faster and you are back to where you left. You can use sleep option if you going away for a short time. Laptops and tablets goes to sleep when you close the lid or press the Power button.

If you select Hibernate option, system uses less power than Sleep. When you start the PC again, you are back to where you left.

4.2 Operating Systems

An operating system is the basic software that controls the computer. It serves as an interface between the user and the computer.

Some of the functions of Operating system are:

- It manages all the devices of a computer and keeps track of the status of the device, whether it is busy or not.
- It also checks whether the device is functioning properly or not.
- It also controls software resources of the computer.

- It manages the computer memory and keeps track of which memory space is in use by which program and which space is free.
- It manages the structure of the files and directories on a computer system.
- It keeps track of the amount of disk space used by a specific file.
- It allows you to create, copy, move and delete files.

4.3 TYPES OF OPERATING SYSTEMS

4.3.1 Commonly used operating systems

<A> DOS

DOS (Disk Operating System) is an operating system for a personal computer. Early computers were able to run one program at a time. It had a command line interface in which a user has to remember the commands to run the program and do other operating system tasks. For example, the DOS command, *dir*, will display the list of files in the current directory.

 Windows

It is an operating system developed by Microsoft. Some popular versions of Windows operating system are- Windows 98, Windows, 2000, Windows XP, Windows 7, Windows 8, and Windows 10.

<C> Linux

It is an operating system designed for personal computers. It is a free and open-source software, which means it can be modified and redistributed.

4.3.2 Mobile operating Systems

Some popular operating systems that are used in mobile phones are:

<A> Android It is an operating system used in mobile phones and tablets. It is owned and maintained by Google and is an open-source operating system. The android releases were nicknamed after sweets or dessert items like Cupcake (1.5), Donout (1.6), Éclair (2.0), Frozen Yogurt (2.2), Honeycomb (3.0) and Jelly Bean (4.1), Kitkat (4.4), marshmallow (6.0),

** Symbian** It is an operating system used in mobile phones. Symbian was developed and sold by Symbian Ltd. It is primarily used by Nokia. It is also used by Japanese mobile phone manufacturers for handsets sold in Japan.

<C> Windows Phone It is a mobile operating system developed by Microsoft for smart phones and pocket

PCs. Windows Mobile. Windows 8.1 is the latest release of this operating system.

iOS It is a mobile operating system developed by Apple Inc. for iPhones, iPads, and iPods. It is supported only by Apple hardware. iOS 9 is the latest release of this operating system.

Lets Try It

1. Start your computer and see the changes on the computer screen. Shut down the computer properly.
2. Identify and name the operating system installed in your computer.
3. Discuss the functions of operating system.
4. Discuss how to properly start the computer and shut down the computer.

Worksheet

1. What is an operating system?
2. Write functions of operating system.
3. Name any three operating systems for computers.
4. Name any two mobile operating systems.
5. Why is it necessary to properly shut down the computer?

4.4 DESKTOP OF WINDOWS AND LINUX

4.4.1 Windows 7 operating system

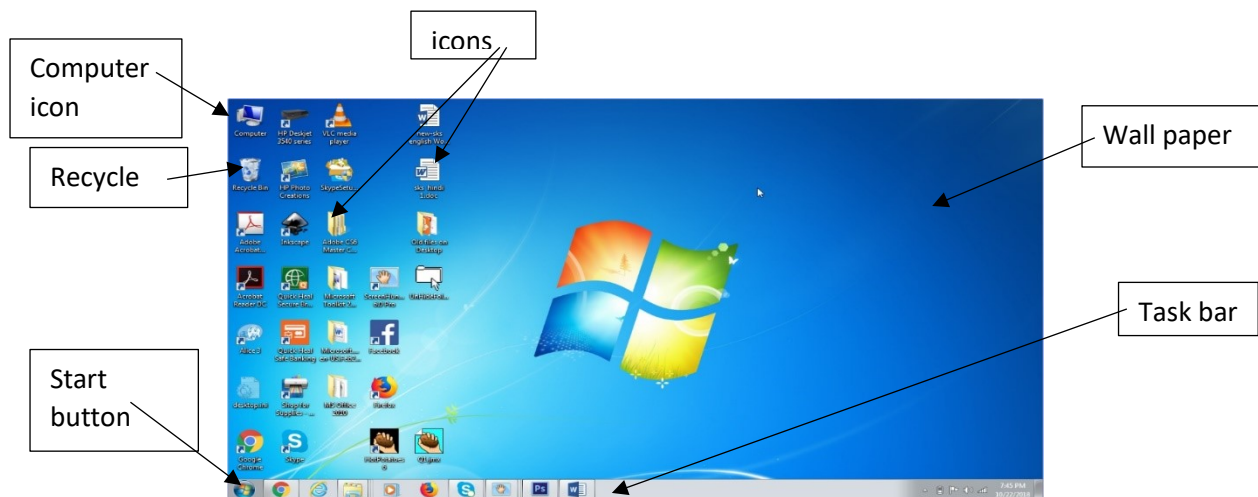
Windows 7 is an operating system developed by Microsoft and is used on personal computers.

After loading Windows 7, the first screen that appears on the monitor is called **desktop**. From the desktop, you can access different components of Windows 7.

By default, Windows 7 has a picture for the desktop background. This is called **wallpaper**.

Small pictures on the desktop are called **icons**. These icons represent files, folders, applications, etc. At the bottom of the desktop is a long bar called the Taskbar. To the left of the taskbar is the Start button.

<A> Components of Windows 7 Desktop are shown below in figure 1:



Let us discuss some special icons on the Desktop – Computer, Documents, My Network Places, and Recycle Bin.

 Computer

It displays all the storage areas of the computer. Through the Computer icon, you can access all drives, files, and folders on the computer.

<C> Documents

This contains area to store files on the computer.

<D> My Network places

It contains information about the interconnected computers.

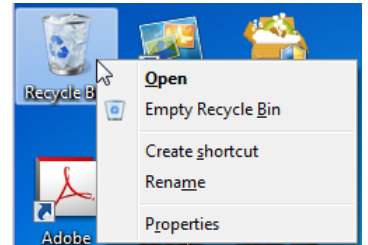
<E> Recycle Bin

Files and folders deleted by the user are stored in the Recycle Bin. From Recycle Bin, you can retrieve files or folders deleted by mistake.

Permanently Deleting Files

You can permanently delete the contents of the Recycle Bin in any one of the following ways:

Right-click the **Recycle Bin** icon and then click **Empty Recycle Bin**.



OR

1. Double-click the **Recycle Bin** icon.
2. The **Recycle Bin window** appears. (Fig 2)
3. Click **Empty the Recycle Bin**.

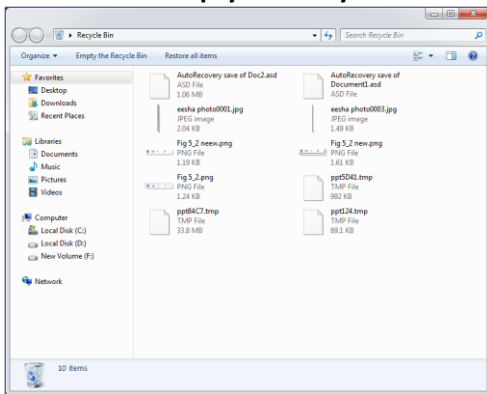


Fig 2

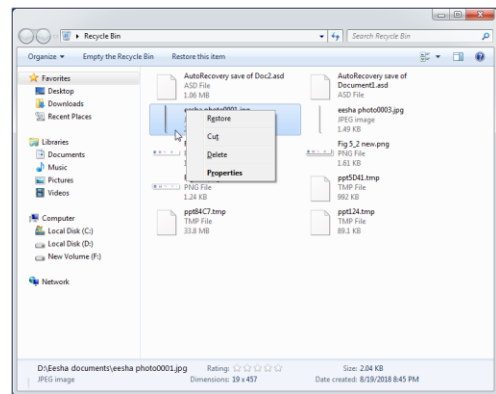


Fig 3

Restore Files/Folder from Recycle Bin window

To recover a file from the **Recycle Bin**, right-click the file, and then click **Restore**. (Fig 3)

Or

Select the file and click **Restore this item**

<F> Taskbar

Taskbar is the long horizontal bar present at the bottom of the screen. To the left is the Start button. Right of the taskbar contains Date/Time. You can also see icons of active applications and some shortcuts on the Taskbar

The main components of Taskbar are shown in the following **figure 4**:

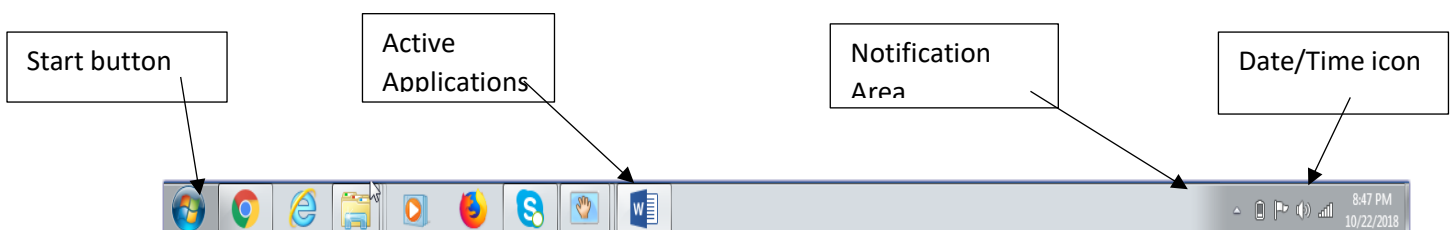


Fig 4 Taskbar

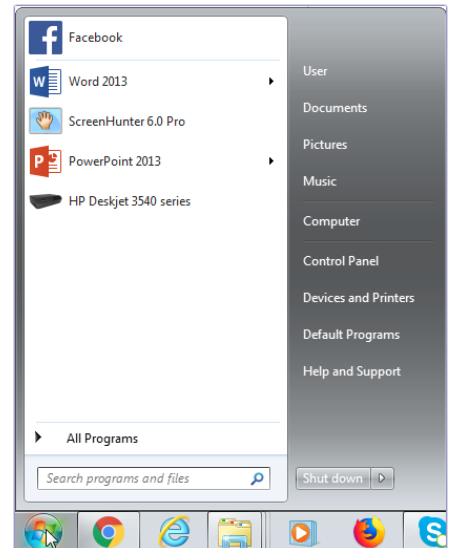
<G> Start button It is located on the left of the taskbar. Clicking the Start button opens the Start menu and provides access to programs and features, like:

Shut Down:- allows the user to turn off the computer

All Programs:- Provides access to all the installed programs and applications. To start an application, just click it.

Search Box:- This allows the user to search a file or a folder or run executable files.

Control panel:- This allows the user to change various settings.



Lets Try It

1. Start your computer.
2. Name the operating system on your computer. _____.
3. Observe the icons on the desktop. Identify Computer icon, Recycle Bin, Start button, taskbar, etc.
4. Double-click Computer icon.
5. Write down the partitions of the hard disk.

6. Identify removable disks on the computer.

7. Double-click Recycle Bin.
8. Restore any one file.
9. Empty Recycle Bin.
10. Click Start button.
11. Write names of any three programs/applications installed in your computer.

12. Change the Wallpaper using following steps:
 - a. Click Start > Control panel.
 - b. Under Appearance and personalization, click Change desktop background.
 - c. In the window that appears, select the desired picture.
 - d. Click Save Changes button.

Worksheet

1. The first screen that appears after starting the computer is called _____
2. Small pictures on the desktop are called _____
3. The long horizontal bar present at the bottom of the desktop is called _____
4. Name the folder where all the temporarily deleted files are stored.
5. How can you recover files from Recycle Bin?

4.5 FILES AND FOLDER

Everything you store on your computer is stored in the form of a file. Files can be separately placed into groups, called folders/directories. Each directory/folder can contain related files and/or sub-folders. This allows easy accessibility of files.

4.5.1 Creating a folder

The steps to create a new folder are:

1. Double-click the **Computer icon. (Fig 5)**

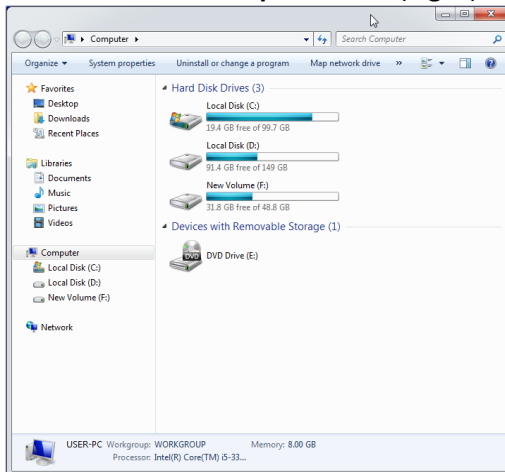


Fig 5

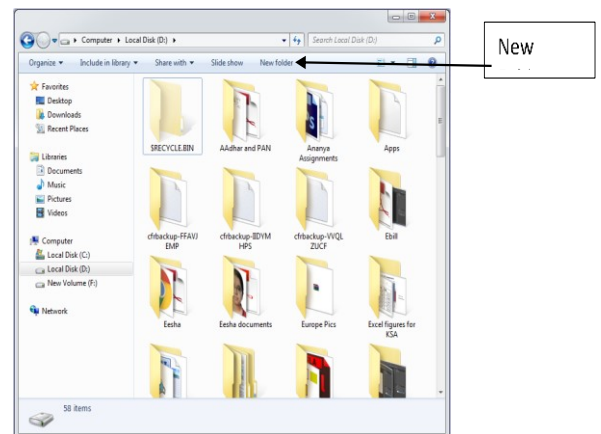


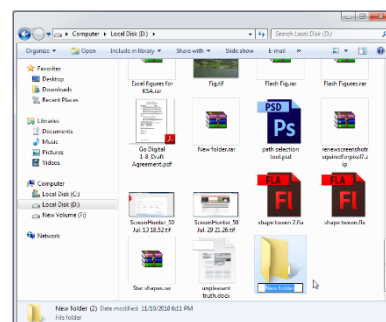
Fig 6 Files and folders in Local

2. Select the drive in which you want to create a new folder. Say, Local Disk D:.
3. Window will open up showing files and folders in Local Disc D: (**Fig 6**)
4. Click **New Folder** on the toolbar.

Or

Right-click anywhere in the blank area of the right column. A shortcut menu appears. Select **New > Folder** from the shortcut menu. (**Fig 7**)

Fig 7 Shortcut Menu



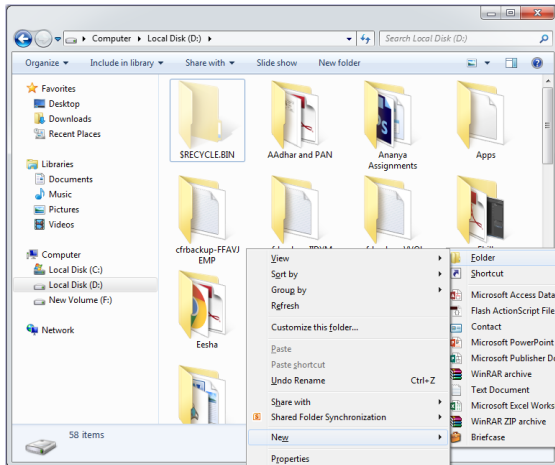


Fig 8 New Folder created

5. A new folder is created with name **New Folder** highlighted (Fig 8).
6. Type a name for the folder (Fig 9). Press Enter key.

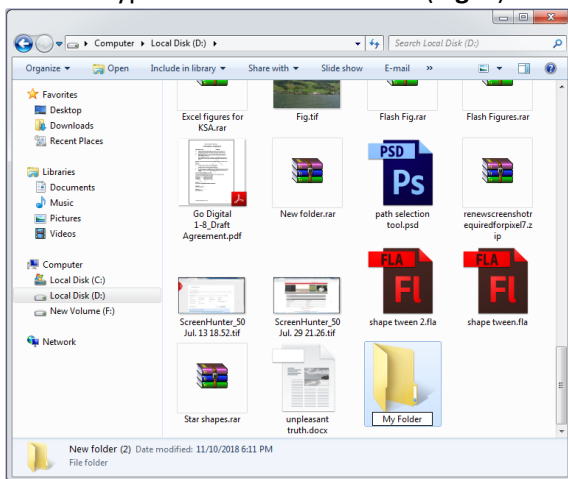
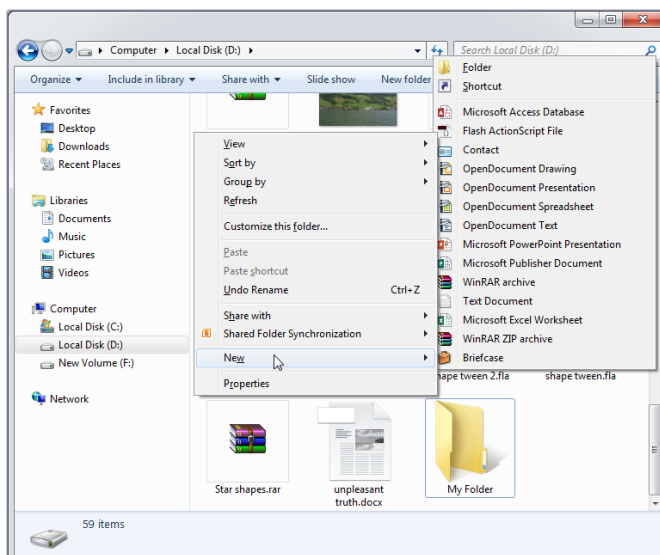


Fig 9 Naming a folder

4.5.2 Creating a file



To create a new file:

1. Right-click anywhere in the blank area of the right-column.
2. In the Shortcut menu, click **New** and select the type of the file you want to create. (Fig 10)

Fig 10 Creating a new file

4.6 KEYBOARD AND MOUSE ACTIONS

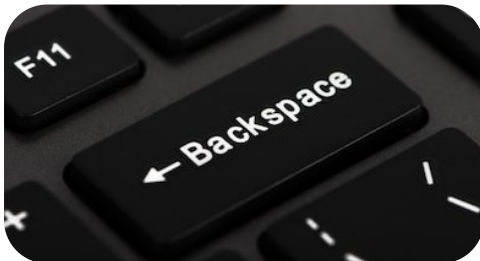
4.6.1 keyboard operations

We already know that a keyboard has many keys on it. We can type numbers, letters, and symbols by pressing keys of the keyboard. The characters we press on the keyboard appear on the screen.

The most common keyboard used these days is QWERTY keyboard. It is so called because the first six letters on the keyboard are Q, W, E, R, T, and Y.



Let us discuss some special keys of the keyboard.



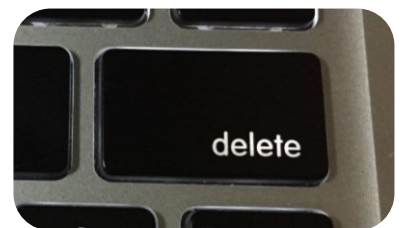
Backspace key

This key is used to erase the character to the left of the cursor.

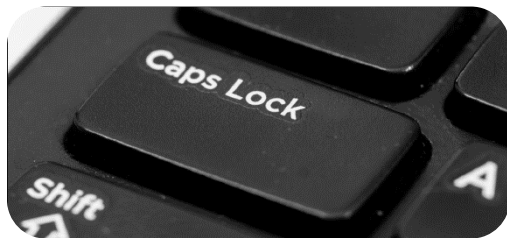
Delete key

This key is used to delete the

character to the right of the cursor.



Caps Lock key



The Caps Lock key is present on the left side of the keyboard. When you press the Caps Lock key, a light is turned on. When the Caps Lock key is ON, all the letters you type will appear in uppercase (capital).

If the Caps Lock key is turned off, all the letters you type will appear in lowercase.

Alt key

This key is used in combination with other keys to perform certain actions. It is located on both sides of the space bar key. It can be used to access the options in the File menu or Ribbon. For example, pressing Ctrl + Alt + Del keys together, opens the Windows Task Manager window.



Shift Key



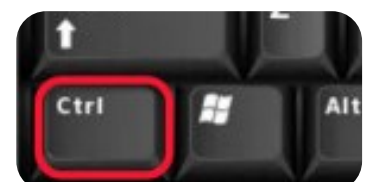
The Shift key is used along with the other keys. There are two shift keys on the keyboard. The Shift key is used to type the upper symbol present on some of the keys of the keyboard.

It is also used to type letters in uppercase, if Caps Lock key is off.

If Caps Lock key is on, the Shift key can be used to type alphabets in lowercase.

Ctrl (Control) key

This key is used in combination with other keys for performing particular operation. For example, Ctrl + C is keyboard shortcut for Copy command, Ctrl + V is the keyboard shortcut for paste command.



Esc (Escape) key

Esc key is found on the top left corner of the keyboard. This key is used to stop an action, leave a program, close a dialog box, etc. For example, you can stop a browser from loading web page if it is taking too long. You can also close a dialog box by pressing Esc key.



Function keys

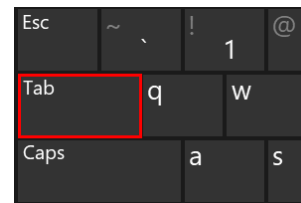


On the top of the keyboard, there are function keys marked from F1, F2, F3, and so on. These keys have special function defined by operating system or currently running program. They may be combined with Alt or Ctrl keys. For example, F1 key is used as the Help key in almost every program. On pressing this key, the help screen appears.

Also pressing Windows key + F1 opens the Microsoft Windows help and support centre.

Tab key

Pressing this key moves the cursor several places along the same line.



Fn (Function) key



Function (Fn) key is found in most laptop computers and some desktop computer keyboards. This key can be used to perform special hardware functions, such as adjusting the screen brightness, volume of the speaker, etc.

On pressing the fn key and the key that increases the brightness on the laptop screen.

Print Screen key

When you press this key, the current screen image is sent to the computer clipboard. Once the image is stored in the clipboard, you can paste the image in any image editor or any other program.



4.6.2 Mouse actions

When you move the mouse, a tilted arrow, called the mouse pointer moves on the screen. The mouse pointer helps in pointing and selecting objects on the screen.

Different mouse actions are:

- Click
- Double-click
- Right-click
- Drag and drop

Click

Clicking the mouse means pressing the left mouse button once and releasing it. A click is used to select an item on the computer monitor.

Double-click

Double-clicking the left mouse button twice within a short period of time and releasing it. This action is used to open a program, a file, or a folder.

Right-click

Right-clicking the mouse means clicking the right button of the mouse once. This shows a list of commands.

Drag and drop

Drag and drop action of mouse is used to move an item from one position to another.

4.7 COMMON DESKTOP OPERATIONS

4.7.1 Moving an icon from one position to another

Lets see how to move the icon 'Recycle Bin' on the Desktop from one position to another.

1. Place the mouse pointer on the icon 'Recycle Bin'.
2. Press and hold the mouse button. (**Fig 11**)



Fig 11

3. Holding the mouse button, drag the icon to the new position. (Fig 12)

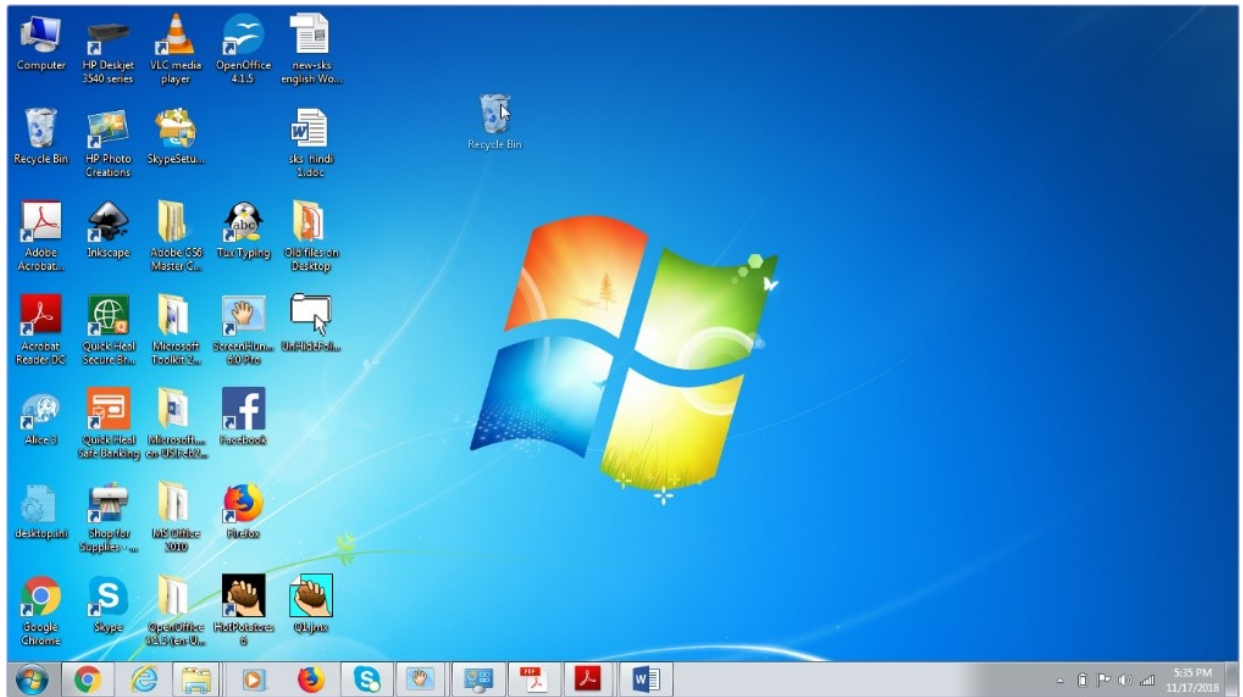


Fig 12

4. Release the mouse button.

4.7.2 Using Computer icon on Desktop

When you double-click Computer icon, a window shown below appears on the screen. In the following figure, you can see that hard disk has three partitions- Local Disk (C:), Local Disk (D:), and New Volume (F:). Also a removable DVD Drive (E:) is there in the system.

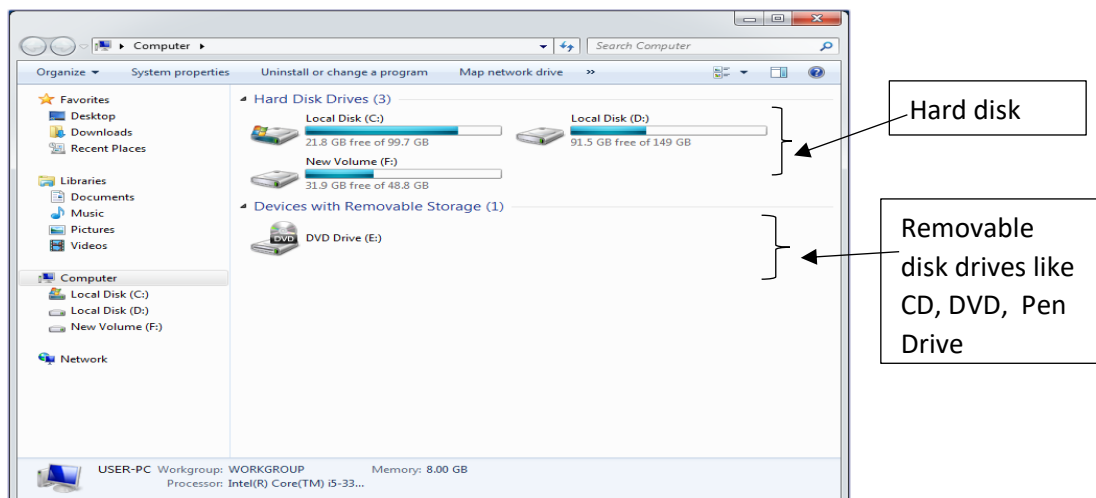


Fig 13 Computer Window

To view the contents of any item, e.g., a particular hard disk drive partition, double-click its icon.

Lets Try It

1. Create a folder on the desktop named 'MyPracticalFile'.
 - a. Open this folder 'MyPracticalFile'.
 - b. Right-click anywhere in the blank area of the right-column.
 - c. In the Shortcut menu, click New and select the type of the file you want to create, say Text Document.
 - d. The default name for the text document appears. Type the desired name and press Enter key.
 - e. Double-click to open the file in Notepad (in this case).
 - f. Type few lines on the topic 'Functions of Operating system'.
 - g. Save the file by pressing Ctrl + S or by selecting Save option from the File menu.
2. Discuss the concept of files and folders. Also discuss the importance of creating folders.



Unit 5. Connect with the World Using Internet and its Applications

5.1 INTRODUCTION TO INTERNET

Internet is a network of networks. It is an interconnection between several computers of different types belonging to various networks all over the world. The Internet is a medium of communication and exchange of information.

Exploring information on the web is called web surfing.

5.1.1 Some common terms related to Internet

WWW (World Wide Web)

WWW stands for world wide web is a network of world wide computers.



Protocol

Protocol is a set of rules to be followed while communicating or transferring data on internet.

HTTP (Hyper Text Transfer Protocol): This protocol defines the rules to be followed while transferring the information. The information may be in the form of text, images, videos, etc.

This is the most commonly used protocol over world wide web.

HTTPS is the secured version of http. It ensures better protection against data theft.

URL (Uniform Resource Locator)

Each web page has a unique address which identifies its location on the network. This unique address is called the URL.

The URL has two parts:

- Protocol identifier: It identifies the name of the protocol used.
- Resource name: It specifies the complete address to the resource on the Internet.

For example,

<http://www.mywebsite.com>

here, http is the protocol

www.mywebsite .com is the resource name

5.2 APPLICATIONS OF INTERNET

Some of the services provided by internet are:

- Email
- Chatting
- Video conferencing
- Social networking
- E-learning



- E-shopping
- E-reservation
- E-banking, etc.

5.2.1 Email

E-mail stands for electronic mail. It is a message in an electronic form that is sent or received from one computer to another.

5.2.2 Chatting

Chatting on internet refers to textual communication that offers a real-time transmission of text messages from one person to another. These messages are generally short.

5.2.3 Video Conferencing

Video conferencing using internet is a visual communication between two or more persons who may be present at different locations.

5.2.4 Social Networking

Social networking is the use of internet based social media sites that is used by people to stay connected with friends, family, etc.

5.2.5 E-learning

E-learning or online learning refers to a learning system that is done using an electronic device with internet connection.

5.2.6 E-shopping

Buying products online, i.e., using an electronic device with internet connection is called e-shopping. Customer can buy products from the comfort of their home. It saves time and effort. You can even compare products, even cancel the transactions. Most important, this facility is available 24 X 7 and 365 days.

5.2.7 E-reservation

E-reservation means booking of tickets online. You can book airline tickets, train tickets, movie tickets and even hotel rooms and tour packages online.

5.3 INTERNET BROWSER

A web browser or internet browser is a program that is used to view the web sites. It acts as an interface between the web server and the world wide web. Some commonly used web browser are – Google Chrome, Microsoft Internet Explorer, Microsoft Edge, opera, etc.

A web browser performs the following tasks:

1. It connects to the web server and sends a request for the information.



2. It displays the information on the computer.

5.4 WEBSITES AND WEBPAGES

5.4.1 Web site

A web site is a collection of two or more related web pages. Web pages of a web site are linked together through hyperlinks.

5.4.2 Web page

An individual page of a web site is called a web page. It is written in a special computer language called HTML (Hyper text markup Language).

There are two types of web pages:

- Static web pages
- Dynamic web pages

Static web page is a web page in which all the information is presented to the user exactly as it is stored. For example, any tutorial web site.

Dynamic web page is a web page which shows different content each time you visit the page. For example, shopping web sites.

5.4.3 Home Page

The first web page of a website is called the home page.

5.5 EMAIL APPLICATIONS

Some of the advantages of e-mail are:

- It is fast and easy to use.
- It is the fastest means of communication. A message can reach any part of the world in a fraction of a second.
- You can send text message, pictures, sound messages across the globe.
- Message can consist of few lines or more. It is not charge by weight.
- You don't have to pay anything extra for the sending or receiving the email. You just pay for the internet connection.
- You need not be on your computer or online to receive the e-mail.
- E-mails are eco-friendly as no paper is used.
- You can also send bulk messages to a large number of people at the same time.

5.6 EMAIL ACCOUNTS

To send or receive email messages, you first need to open your email account and have your email address.

Email address

An email address has two main parts:

- User name
- Host name

These two parts are separated by @ symbol.

For example, consider the following email address:

myemail@gmail.com

In the above email address, **myemail** is the user name and gmail.com is the host name.

Email program

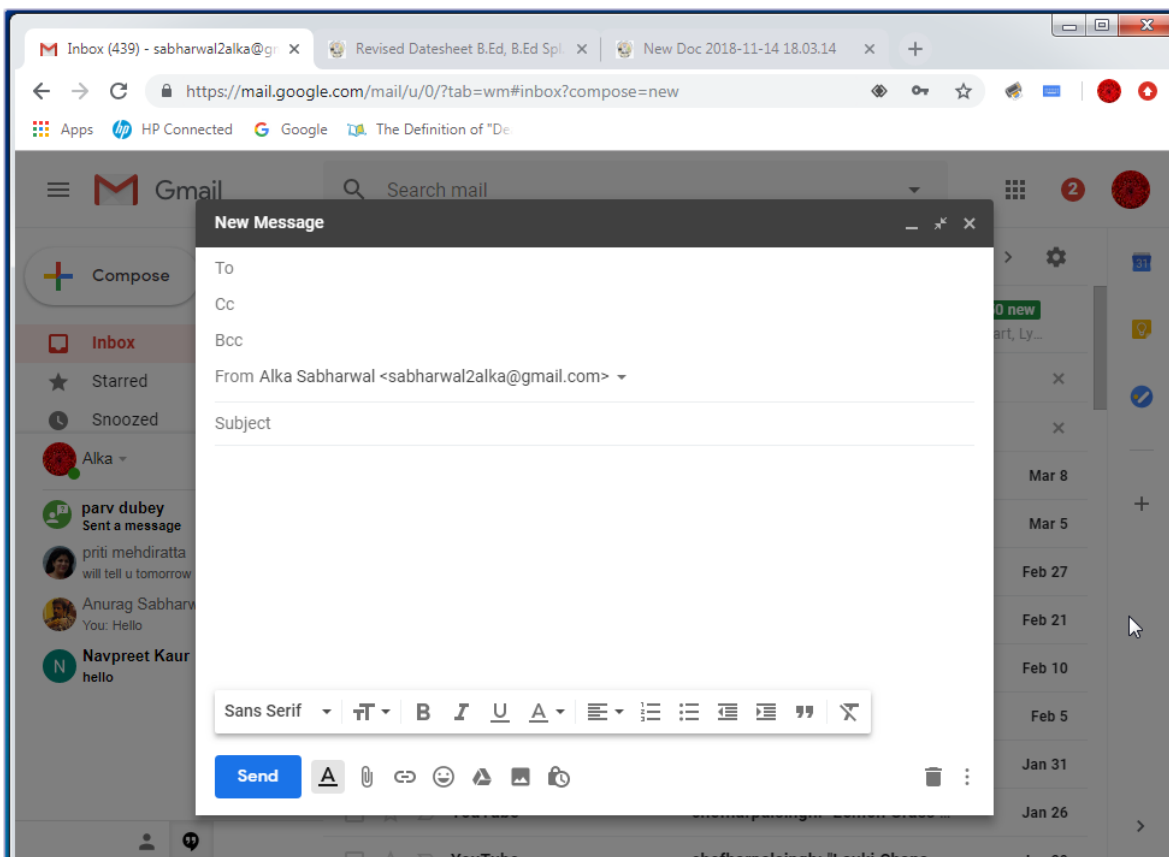
An email program enables you to send and receive email messages. Some of the popular email programs are:

Gmail.com

Yahoo.com

Rediff.com

5.7 SENDING AND RECEIVING EMAIL



To send an email, you first open your email account. Then click Compose option. The following window opens.

Some of the options while composing an email are:

To This option allows you to write the email address of the person you want to send the message to.

Cc It stands for carbon copy. This option allows you to send the same message to several persons at the same time and every recipient will know all the recipients of this mail. The multiple email addresses are separated by semicolon.

BCc It stands for Blind Carbon copy. This option allows you to send the same message to several persons at the same time but a recipient will not know who the other recipients of this message are.

Subject This option allows you to write in few words about the content of the message.

Attachment This icon helps you to attach files such as, documents, presentations, images, videos, etc with your email message.

5.8 INTRODUCTION TO SOCIAL MEDIA

Social media refers to different online communications channels that are dedicated to community-based input, interaction, content-sharing and collaboration.

A social networking service is an online platform which people use to build social networks or social relationship with others. Social networking has created a change in the way we communicate with one another.

A website that provides facility to people to keep in touch with friends, build social relations, or share common interests is called a social networking website.

People often use these websites to communicate and share ideas, information, post comments, messages, images, etc. on a social networking website.

Benefits of Social Networking Websites

The benefits of social networking websites are:

- These sites provide a way to connect with people around the world.
- Social Networking site, like Facebook can be used to stay in touch with the family, and connecting with old friends has become very easy
- These sites help us to learn about current events.
- These sites also work as a platform to launch new business ideas, or for advertisers to market their products and services to their subscribers.
- Social networking sites can be used to disarm social stigmas.

Disadvantages of Social Networking websites

- These sites expose people to a lot of information, which may or may not be authentic.
- If you share your current location over social media, you can easily become a target.
- Peer pressure and cyberbullying are also important issues.

- Online interactions have now substituted the face-to-face interactions and this has reduced the social skills.
- Social networking has become a distraction for most of the people. Students who use social networking too often have lower grades.
- Using social networking for long hours in a day can lead to a sedentary lifestyle.
- Social networking sites can spread false or unreliable information quickly.

How to stay safe on Social networking Websites

The following actions keep you safe on social networking websites:

- Do not post and share private information like mobile phone number, home address, etc. on social networking websites.
- You should be familiar with the privacy policy of the social networking sites. You can adjust your privacy settings on social networking websites, so as to control who can access your information.
- Use a strong password. Longer password is more secure than a shorter one.
- Use a different password for each social media account.
- Be selective with friend requests. Don't accept the friend request if you don't know the person personally.
- Be careful while clicking at any link or any pop-up window.
- Protect your computer with anti-virus software and keep it updated.
- Always Log Off when you are done.

5.9 BLOG

Blog

A blog is a website which is maintained by an individual. The person who creates and maintains the blog is called the blogger.

5.10 TWITTER



Twitter is a social networking service that allows you to send short messages to communicate with your friends or followers. You can send short messages of upto 140 characters, which are called tweets. Twitter is used by people to inform others about the latest happenings in their lives.

5.11 FACEBOOK

Facebook, founded by Mark Zuckerberg, is the most popular social networking site. To use Facebook, you need to first create an account. Then add other users as friends. You can then exchange messages, pictures, etc. with your friends on the Facebook.

Companies also setup their own Facebook pages to connect and communicate with customers and clients.



5.12 YOUTUBE



You tube allows people to watch and share self-created videos.

Companies are also using You tube to launch and advertise their product.

5.13 WhatsApp

WhatsApp is a free messenger app for smartphones. WhatsApp uses internet to send text messages, pictures, audio or video. You can make audio and video call to any person having WhatsApp in their smartphone, in any part of the world. You don't have to pay anything extra for sending message or making calls. You just pay for the internet connection.



5.14 DIGITAL INDIA

Digital India

Digital India is a campaign launched by the Government of India in 2015, to ensure that the Government's services are made available to citizens electronically by improved online infrastructure. It also aims at increasing Internet connectivity and making the country digitally empowered in the field of technology.

5.15 CYBER CRIME

5.15.1 Introduction to Cyber Crime

Cyber crime refers to any crime done using computer or any electronic device with internet connection.



Some of the cyber crimes are:

- Cyber Bullying
- Cyber Stalking – It refers to harassing an individual or an organization using internet. This may include making false accusation or defaming, threatening, damaging data, etc.
- Hacking – If someone tries to get into computer systems in order to steal, corrupt or illegitimately view data, then it is called hacking. The person who does hacking is called a hacker.
- Phishing – Phishing means an attempt to acquire a sensitive information such as username, password, etc.
- Spamming – Spam refers to unsolicited email which is sent in large quantities to a large number of users.

5.15.2 Cyber Bullying

Cyber bullying is when a student uses any electronic device like, computer, smart phone, tablet, etc.to post text and images with the intention to hurt, embarrass, threaten or humiliate the victim. Cyber bullying usually involves posting or sending gossip, posting or sending offensive, rude post to damage a person's reputation, relationship with others.

Children usually bully others to seek attention, for revenge, for pleasure, to satisfy their ego, jealousy, peer pressure, etc.

Cyber bullying can lower the confidence of the child. It can also result in poor academic performance. Child may get stressed, loose appetite, become a loner, may be unwilling to got to school, afraid of using technology and even have suicidal thoughts.

5.15.3 Cyber Addiction

Internet has become an essential part of our life. We use internet for various purposes like, for communication, for upgrading our knowledge, for shopping, in schools, for payment of bills, at home and in office.

Above all, we use internet as a companion when we are alone and we cannot live without it.

Addiction is generally thought to be a mental disorder involving compulsive behavior and when a mental condition characterized by excessive use of the internet it is called Cyber/Internet addiction. When someone is constantly online, they may be described as addicted to it.

Some of the factors responsible for cyber addiction are:

- Lack of family interaction
- Change in life style
- Lack of social circle
- To compete with latest up comings and technology to keep updated.
- Mostly both the parents are working and doesn't have time for kids and want their kids to be busy on computer or mobiles.

Some warning signs of cyber addiction

- Loss of control when trying to stop or limit the amount of time on the internet.
- Breaking promises to self or others
- Feeling of depression or anxiety when someone stops or interrupts while working on the computer.
- Feeling of guilt over excessive use of internet



After Effects of Cyber Addiction

Over use of internet may lead to:

- Headaches
- Back aches
- Irregular eating habits
- Sleep disturbances
- Neglect of family and friends
- Dry eyes and eye problem
- Feeling of depression, irritation

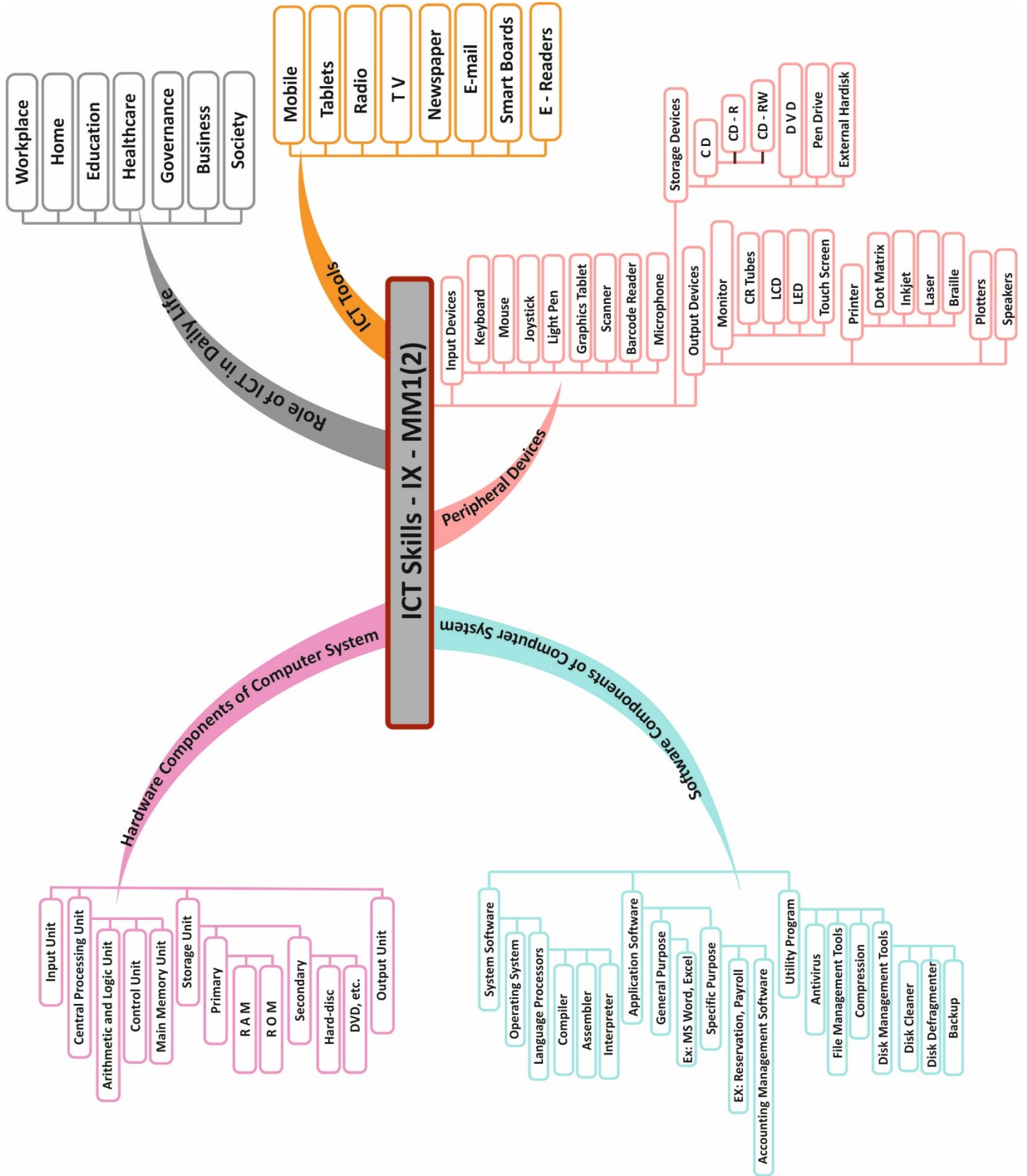
Cyber addiction may lead to cyber crime.

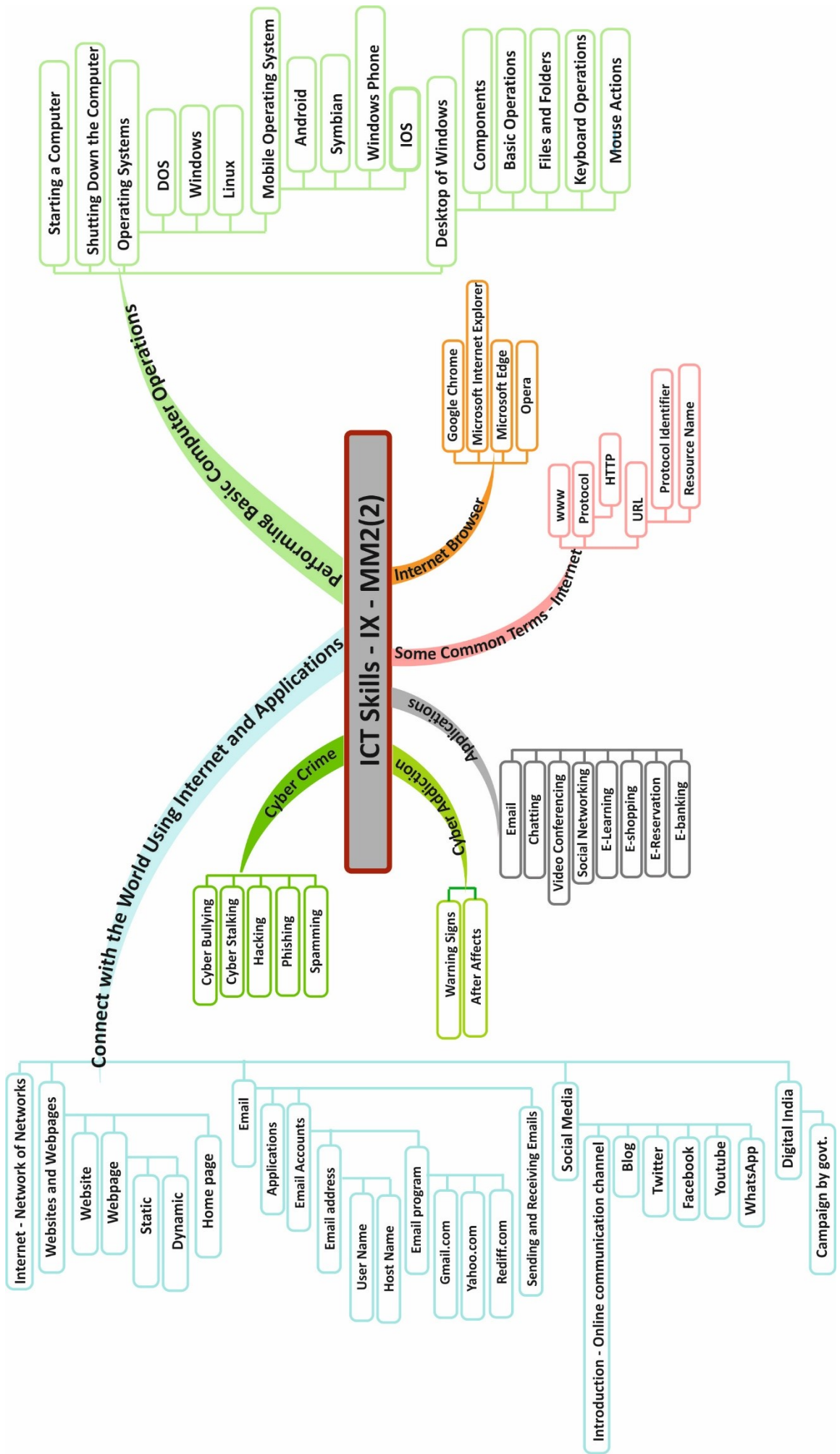
Lets Try!

1. Discuss various applications of Internet.
2. List names of various Internet browsers
3. Demonstrate how to search information on a website.
4. Demonstrate how to create an email account, compose and send a message and also open the received message.
5. Discuss various social media.

Worksheet

1. What is cyber bullying?
2. What are the affects of cyber addiction?
3. What can be the possible causes of cyber addiction?
4. What is the difference between website and web page?
5. What is WWW?
6. What do you mean by URL?
7. Define the following terms
 - a. Phishing
 - b. Spamming
 - c. Cyber stalking
8. Name any two social networking sites.
9. Explain different parts of an email address with an example.
10. What are the benefits of social networking websites?





8. Introduction

In simple words, entrepreneurship can be defined as the creation of a new business venture. However, it is important to recognize entrepreneurship is much beyond that. Entrepreneurship is everywhere. In our daily lives, we use various products and services that are provided by businesses. These businesses were created because of entrepreneurs. Entrepreneurship not only initiates creation of new businesses in different industries, but also positively impacts economic development. In economic development, entrepreneurship plays a crucial role. It is characterized by dynamic economic activity and has its own rewards for the entrepreneur as well as for the economy.



WHAT IS
ENTREPRENEURSHIP?

2. Business – Meaning and Types



A business is defined as a continuous activity, where economic actions are taken by humans with the objective of earning a profit by either producing, sourcing, buying and selling of goods and services.

Hence, a business refers to an entity or organization engaged in industrial, commercial or professional activities.

Businesses vary across industries and sectors. Based on economic activity, businesses are categorized in manufacturing, service and trading. Based on size, businesses are categorized into micro, small scale, medium scale and large scale. Based on business model, they might be categorized differently. Based on legal form, they have to follow different procedures and norms and thus are categorized differently.

Irrespective of nature, size, scale or ownership, businesses have some common features:

2.1 Trade-related: Most businesses involve the purchase and sale of goods or services and hence are trade-based.

2.2 Economic or social motive: Usually, most businesses performs economic activities such as production, distribution, exchange, expansion etc. with the objective of earning a profit. However some businesses have the sole motive of social welfare. Yet, there are other businesses which have both the motives – social and economic.

2.3 Presence of an entrepreneur: More than an entrepreneur, there is a forerunner in every business. This person is responsible for taking the initiative of establishing, running and growing the business, making key decisions and undertaking the risks involved with it.

2.4 Regular Transactions: A business must be doing and dealing in transactions on a regular basis. An activity that involves only a one-time transaction where the transaction deals in exchange or transfer of goods and services cannot be necessarily considered as a business even if a profit is earned.

2.5 Uncertainty: Every business is featured with uncertainty of sales, return and success. There is no guarantee that the amount invested will come with return or the business will earn a specific amount of profit. Similarly, there is uncertainty about whether customers will choose the product or service offered.

3. Types of Businesses

A business entity is defined as an enterprise or organization that uses economic inputs or resources, converts them into goods or services and provides them to its customers in exchange for money. In line with this definition, businesses are also categorized as follows:

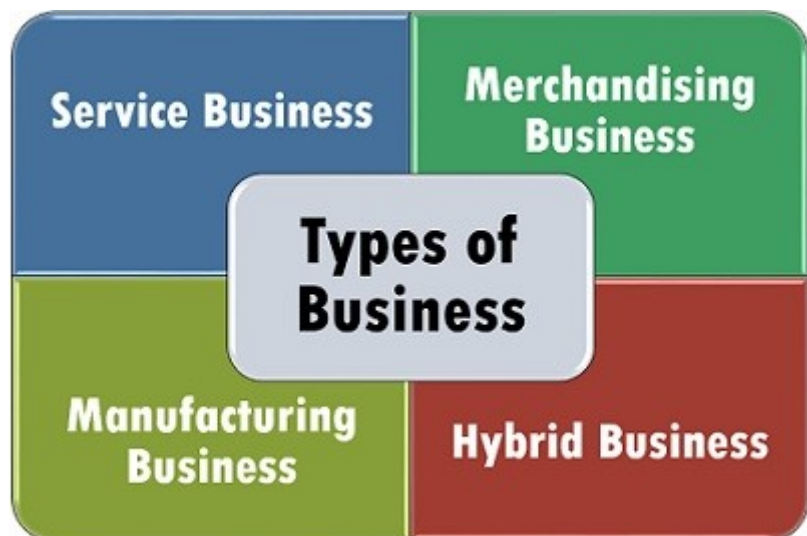
3.1 Manufacturing Business:

Manufacturing businesses source products that can be used as raw materials, with the intention of converting these

materials to make an end product. This new product could be something that can be directly sold in the consumer market or could be a product that can be used in the value chain. These businesses focus on transformation of one product to create a new product. Most manufacturing businesses combine raw materials, technology, labor, plant and machinery and overheads in the process of production. Some examples of such businesses include manufacturing and selling of shoes, clothes, mobile phones, laptops, suitcases, metal products etc.

3.2 Service Business: As mentioned in the tertiary sector, a service business is involved into provision of intangible offering, i.e. a service that does not have a physical form but provides value to the customer. Services businesses offer value using skills, consultancy, expertise, efficiency etc. Some service businesses include banks, law firms, chartered accountants, financial consultants, beauty salons, schools, e-commerce platforms, event planners etc.

3.3 Merchandising Business: Merchandising businesses involves transfer of ownership or tangible products. Most of the times, in these type of businesses, products are bought at a wholesale price and sold at retail price. These businesses profit by selling products at a higher price than the purchase cost. The form of the product is not changed by a merchandising business, but it is sold in the same form. In merchandising businesses, it is important for the business to have keep enough inventory or stock.



For example, convenience stores, resellers, distributors, grocery stores, supermarkets, retail clothing stores are examples of merchandising businesses.

3.4 Trading Business: A trading business is also involved in reselling of goods. However, the difference between a trading business and a merchandising business is that in trading business, a trader does not necessarily have to keep stock of inventory. Trading businesses work with different kinds of products and services that is sold to consumers, businesses or government organizations. Some activities trading businesses are involved in are buying of products or brokering of services, negotiating for prices and coordinating delivery. A trading business earns money from the profit margin purchase cost and selling price. Import and export of goods and services largely make up the trading sector. Some examples of trading businesses are real estate brokers, middlemen, importers, exporters, foreign exchange traders etc.

3.5 Hybrid Business: Hybrid businesses are some businesses that are involved in different activities ranging from manufacturing, service, merchandising etc. These could be business groups involved in different types of businesses that cannot be classified as a definite service business or a manufacturing business. It may not use the traditional methods of production and distribution. Sometimes, businesses that focus on socially beneficial goals are also termed as hybrid businesses. For example, though a traditional restaurant business is classified as a service business, some are also considered to be hybrid businesses. If they are involved in combining ingredients to make different products, they are performing a manufacturing activity. If they are involved reselling of alcoholic items, it can be considered to be involved in merchandising. Similarly, it also provides the service of fulfilling customer orders. Hence, it can be categorized as a hybrid business.

4. Features of Types of Businesses

	Manufacturing	Services	Merchandising
Primary activity	Production of goods	Provision of service/s	Purchase and sales of goods
End-products	Physical/ tangible goods	Intangible	Physical/ tangible goods
Inventory	Common forms of inventory include raw materials, work-in-progress & finished goods	No inventory	Finished goods
Labour	Skilled & unskilled	Skilled - Professionals & experts	Sales person/s
Location	Where infrastructure is good & supportive, labour is relatively cheap & raw materials are easily accessible at a fair price	Where potential customers/clients need the service and are willing to pay for it	Where end-users or customers make the purchase for the product

Customer demand	Demand is forecasted and goods are produced accordingly	Services provided as per needs and demands of the clients	Procured goods are sold
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5. Types of Businesses in Our Community

5.1 Based on size:

5.1.1 Micro Enterprise: A micro enterprise is a business enterprise where the investment in plant and machinery or equipment is not more than INR 1 crore and turnover does not exceed INR 5 crores.

5.1.2 Small Enterprise: A small enterprise is a business enterprise where the investment in plant and machinery or equipment is not more than INR 10 crore and turnover does not exceed INR 50 crores.

5.1.3 medium enterprise: A medium enterprise is a business enterprise where the investment in plant and machinery or equipment is not more than INR 50 crore and turnover does not exceed INR 250 crores.

5.2 Based on legal form:

5.2.1 Sole proprietorship: In a sole proprietorship, the ownership and control of the business is with one single person, and the liability of the owner is not separate from the entity.

5.2.2 One Person Company: A One Person company also has only one person as a member, who acts in the capacity of both, a shareholder and a director, but an OPC is legally separate from its owners. There is no threat on the owner's personal property in case of unmet liabilities.

5.2.3 Partnership: Partnership is a legal form, where at least two people, or more start a business as co-founders or co-owners and divide the share as per agreement. The partners are personally liable for an unlimited amount of liabilities.

5.2.4 Limited Liability Partnership: In a Limited Liability Partnership, there are two or more partners. In this, no one single partner or owner is individually responsible for any other partner's or member's negligence or misconduct or liability.

5.2.5 Company: A company is defined as a legal entity formed to get engaged in business, by a group of individuals. Usually, these individuals have limited liability, and the capital in units of equal value of a company are called 'shares'. Company can be public or private.

5.3 Based on sector:

5.3.1 Primary sector: This sector includes businesses that involve extraction, retrieval, harvest and production of raw materials using natural products from the earth. For example, some raw materials include coal, wood, grains, iron, corn etc. Thus, some primary sectors include mining, agriculture, fishing, horticulture etc.

5.3.2 Secondary sector: The main activity of businesses in this sector is transformation of raw materials into finished goods. It takes products from primary sector and organizes all factors of production to make utility as well as luxury products.

5.3.3 Tertiary sector: This sector is defined by provision of services to businesses and customers. It is completely based on a service and there is no production of goods involved.

Activity I

Read the case study below and answer the questions given below:

Case Study: Naukri.com

Sanjeev Bikhchandani, the founder of Naukri.com, believes that entrepreneurship is all about taking action to convert creative ideas into a business plan and then into a successful business. Though, action is not the only thing that one needs to be an entrepreneur. The need to deal with failure, stay persistent and handle uncertainty is the difficult part in entrepreneurship. Sanjeev learnt the difficult part during his entrepreneurial journey.

During his adolescent years, Sanjeev often noticed that everyone around him wanted job security through government jobs. However, the salary in a government job was meagre. Sanjeev realized at the age of 12 and decided that he would make a different choice for his career. Business was one career option that he thought would give him money and freedom. With this, he was determined to not look for jobs. However, his parents pressured him to pursue higher education and give the IIT-JEE entrance exam. Though he was able to clear the exam, Sanjeev decided to not take admission in IIT and pursued a Bachelor of Arts degree in economics.

After this, he pursued an MBA from IIM Ahmedabad and started working at Hindustan Milkfood Manufacturers (HMM). While working at HMM, he often observed his colleagues skim through magazines and newspapers that contained job listings. Although they were already employed, they were still curious to know the options available out there. This behavior was observed for working professionals at all levels. Many of his colleagues also received calls from head-hunters at least twice or thrice a week for jobs that were not even advertised anywhere. After keenly observing this pattern and talking to some people in the office, Sanjeev thought that he must figure out a way to market these jobs. For this, he realized that he would have to create a database of jobs. The only problem was people had not even heard of the internet in India, thus there was no facility as such where a database could be created and eventually accessed by customers and head-hunters.

With this, Sanjeev decided to drop the idea and started to think of other ideas. Soon, he quit his job and started two companies in partnership with his friend, 'Info Edge' and 'Indmark'. Leveraging the technology of creating databases, Info Edge provided the information about entry level salaries for graduates from different fields, where these salary reports were ultimately sold to companies. Indmark was a database that provided assistance for trademark registration, where the client paid for these consultancy services. Most of Indmark's clients were pharmaceutical companies, who paid to get detailed reports about pending applications, likelihood of trademark getting accepted etc. While these companies made little money, Sanjeev struggled to sustain them. Ultimately, the two partners decided to split up and Info Edge was taken by Sanjeev.

While Sanjeev was selling salary reports and conducting market studies, he came across the technology of the World Wide Web at an exhibition in Delhi. At this time, it was a very new concept. After deeply understanding the technology, he contacted his brother in the US to help him hire a server that could be used to build a portal for finding and marketing jobs. With this, he launched Naukri.com, the first India-based job portal.

Soon, Sanjeev started to get media coverage. Both his businesses, Info Edge and Naukri.com started to grow. While Info Edge could earn profit, it was not enough for even distribute salaries for all

employees. On the other hand, Naukri.com was gaining more and more popularity as it was a pioneer in this space. Sanjeev decided to shut Info Edge and focus on building and running Naukri.com. As a result, by the third year of its operations, Naukri.com earned a turnover of INR 3.6 million. This is when the expected journey of Naukri.com was set.

Sanjeev grew the business by securing external finance and innovating in terms of building an efficient sales force. Soon the competition grew but Sanjeev was able to keep the business afloat by offering value-added products to customers. Seeing the success of Naukri.com, Sanjeev expanded its operations to other countries. He also acquired Jeevansathi.com, a matrimonial website and launched 99acres.com, a marketplace for real estate sites. In 2006, Sanjeev decided to do an Initial Public Offering for the company Info Edge that was the umbrella company for all of Sanjeev's businesses. This was an extremely successful move, which eventually led to Sanjeev's worth coming to INR 720 crore by 2007. Using his initial idea of commercializing databases and staying driven towards his goal of entrepreneurship, Sanjeev Bikhchandani is known to be one of the most successful Indian entrepreneurs.

Q. Which type of business does Sanjeev own?

Q. Do you think Sanjeev is an entrepreneur? Explain.

Q. What made Sanjeev start his business?

Q. What did Sanjeev do to grow his business?



Skill- Based Activities

I. Business Around ME

- Enlist businesses you can think of, that provide products/services and take money in exchange for it.
- Prepare posters of businesses found in towns/villages/cities, using pictures. For example, malls in cities, kirana stores in villages, shopping complexes in towns etc.
- Identify and discuss key activities carried out by small businesses in a local community.

II. Creativity in Business

- Create 3 or more products out of waste materials.
- Calculate the costing of the products made out of waste.
- Decide the prices and sell the products made from waste materials.

Entrepreneurship development is the process of strengthening the skills and knowledge of budding and existing entrepreneurs by handholding them during their entrepreneurial journey.

However, before delving into entrepreneurship development, let us understand the concept of entrepreneurship.

Entrepreneurship is the process of identifying an opportunity and turning it into a venture.

It is a skill or an ability to act on ideas and build on opportunities.

An entrepreneur is a person who undertakes risk to start a business of his/her own.

An entrepreneur is the one who always searches for change, responds to it and exploits it as an opportunity.

Entrepreneurship Development involves enabling entrepreneurs through institution-building learning & development programs and structured training. Largely, the objective of these programs is to empower budding entrepreneurs to start and run their business effectively and efficiently. These programs cover aspects of entrepreneurial skills, business planning, fundraising, setting-up of a new venture and growth & development strategies.

7. Objectives of Entrepreneurship Development

The main aim of entrepreneurship development is to enlarge the base of entrepreneurs, encourage overall entrepreneurial activity and catalyze the pace at which new ventures are created. Some of the core objectives of entrepreneurship development include:

- Assisting entrepreneurs in undergoing the process of entrepreneurship.
- Handholding budding entrepreneurs to recognize and design unique business opportunities.
- Helping aspiring entrepreneurs start and grow dynamic businesses that provide high value add.
- Developing the motivational needs of entrepreneurs.
- Training entrepreneurs to develop the required skills and gain knowledge for running and managing a new business.
- Providing support to entrepreneurs for effective business planning
- Accelerating and incubating new ideas.
- Aiding in the availability of technology or raw material.
- Creating adequate infrastructure for entrepreneurial activities.
- Providing financial assistance from banks and other financial institutions.
- Enabling a suitable entrepreneurship ecosystem and business environment.
- Implementing norms, policies and rules for establishment of new ventures and enterprises.
- Providing tax benefits, incentives, subsidies etc. for creation of new enterprises.
- Encouraging research and development across industries.

8. Phases of Entrepreneurship Development

Entrepreneurship development is also a process in itself and can be divided into following three phases:

8.1 Stimulatory phase: Stimulatory phase involves stimulating or generating need, interest, motivation and awareness among individuals to become entrepreneurs. It is done by orienting them towards the meaning, process, benefits and practice of entrepreneurship.

8.2 Support phase: Support phase is about providing support for various activities of new ventures by mentoring, incubating, financing and advising the entrepreneurs. Some of these activities include business model design, prototype and product development, legal registration, management consultancy, financial assistance, provision of land, shed and power, selection of plant and machinery, marketing support, approvals and licenses etc.

8.3 Sustenance phase: Sustenance phase focuses on helping enterprises to plan for growth. Guidance is provided around growth strategies, expansion, diversification, modernization etc. Support is also given in terms of research and development, additional finance, exploration of global markets etc.

8. Challenges of Entrepreneurship Development

- Lack of continued motivation
- Lack of formal education
- Low technical knowledge
- Absence of managerial skills
- Inadequate infrastructure and resources
- Lack of finance availability

- Lack of awareness about entrepreneurship schemes
- Strict regulatory framework
- Low margin market linkages

Activity II

The Indian government has also taken various initiatives for entrepreneurship development. Some organizations were set up to implement policies for entrepreneurship development.

Some of these organizations, policies and initiatives include:

- Ministry of Skill Development and Entrepreneurship**
- National Policy on Skill Development and Entrepreneurship 2015**
- National Skill Development Mission**
- Make in India**
- Start-Up India**
- Stand up India**
- ATAL Innovation Mission (AIM)**

Research, read and discuss about the above initiatives taken by the Indian Government for entrepreneurship development.

Activity III

You read about some initiatives taken by the Indian Government for entrepreneurship development. Entrepreneurship has proven to be beneficial for various sections of the society. Can it bring a difference in school children? Will learning entrepreneurship help college students? Can any working professional at the age of 30, 40 or 50 become an entrepreneur? Does entrepreneurship development have the potential to uplift farmers? Can entrepreneurship transform careers for women?

Think about different sections and cohorts of the society who can be benefited by participating in entrepreneurship development programs and list them below. After making the list, write some ways in which entrepreneurship development can take place for these sections. Keep in mind the objectives of entrepreneurship development given above.

9. Entrepreneurship – Characteristics, Role and Rewards

9.1 Characteristics of Entrepreneurship

9.1.1 Innovation: In simple words, innovation can be understood as creative use of one’s ideas to propose a solution that introduces something unique or new to the world. There are many types of innovation such as product, process, disruptive etc. Entrepreneurship is characterized by innovation as it is about using innovation to bring unique solutions to fruition. It involves continuously searching for new ideas, evaluate existing solutions, systems and processes, finding ways to increase efficiency and effectiveness of products and services etc.

9.1.2 Dynamic Economic Activity: Entrepreneurship involves creation of value or wealth through a business enterprise, that buys and sells commodities/product/services and uses resources optimally. Hence, entrepreneurship is an economic activity. The process of value creation occurs in an uncertain and dynamic business and economic environment. A lot of ambiguity is involved in running a business due to many unknowns or things not going as planned. Due to this, entrepreneurship is considered a dynamic economic activity.

9.1.3 Risk bearing: Since entrepreneurship is about starting something new, it involves uncertainties and risks. Entrepreneurs have to take risks in implementation of certain decisions and ideas. There are some risks that can be projected by businesses such as supply shortage, increase in cost of raw materials, volatility in market prices, changes in government regulations etc. while there are some risks which cannot be projected such as disasters, pandemics, economic slowdowns etc. The risk of profit versus loss is always prevalent in a business.

9.1.4 Potential For Profit: “Profit potential is the likely level of return or compensation to the entrepreneur for taking on the risk of developing an idea into an actual business venture.” For a commercial entrepreneur, profit is usually the main goal. Even for social entrepreneurs, profit might not be the main motive, but a way to sustain the organization has to be found. Without recurring revenue transactions and low profitability, entrepreneurship can turn into a theoretical and leisurely activity.

9.2 Entrepreneur Vs. Entrepreneurship Vs. Enterprise - Characteristics

Entrepreneurship	Entrepreneur	Enterprise
Process	Person	Entity
Organisational	Organiser	Organisation
Leadership	Leader	Goal-Driven

Motivation	Motivator	Motive
Risk-bearing	Risk- bearer	Risk Management
Visualisation	Visionary	Vision
Creativity	Creator	Creation
Innovation	Innovator	Innovative

9.3 Role of Entrepreneurship

9.3.1 Capital Formation: Entrepreneurship leads to value addition and creation of wealth, because entrepreneurs promote capital formation by mobilising the idle savings of public.

9.3.2 Employment Generation: There is potential for increase in large-scale employment opportunities with increase in entrepreneurial activity. As more enterprises, offices, factories, businesses, trading entities etc. are set up, numerous job opportunities are created for skilled, unskilled and unemployed people, especially in developing countries.

9.3.3 Balanced Regional Development: Entrepreneurship helps to remove regional disparities through setting up of industries in less developed and backward areas. Micro businesses and cottage industries also play a role in increasing entrepreneurial activity in many specific cultural regions.

9.3.4 Value Creation: Value creation occurs when the worth of products and services increases for a customer base and a business earns profit by selling the product or service to fulfil customer needs and wants. Value is created when outputs are more valuable than inputs. Value creation is the foundation of every entrepreneurial activity or business.

9.3.5 Wealth Distribution: Wealth and income are distribution across people and geographies due to entrepreneurship and transaction-based activities. Employees are paid salaries, vendors are paid for their supplies, goods are sold in multiple markets, services are provided at large scale etc. This stimulates distribution of wealth to larger sections of society.

9.3.6 Industrialization and Development: Establishment of even a single enterprise can lead to beginning of a new industry. In a specific region, if a business is set up and seen to be a profitable opportunity, it is likely that others will get motivated to set up similar businesses. Additionally a business might require certain inputs, which leads to setting up of businesses that can supply those inputs. Hence, entrepreneurship catalyses industrialization in almost a chain reaction form, which in turn contributes positively to economic and infrastructural development.

9.4 Rewards of Entrepreneurship

9.4.1 Economic development: Some features of economic development include optimal use of resources, creation of new ideas, wealth generation, continuous flow of money, skill building etc. All these factors are enabled due to entrepreneurship and are essential for economic development of a nation.

9.4.2 Enterprise and Business Creation: Business creation is a direct result of entrepreneurship. Many types of enterprises can be created by coordinating and combining different types of resources

such as physical, financial, human, intellectual and entrepreneurial skills such as risk taking, innovation, leadership, resource planning etc.

9.4.3 Capacity Building: Skilled development and training is a significant reward of entrepreneurship as an entrepreneur invests in training employees and building their managerial capabilities. Similarly, an entrepreneur also develops his/her own capabilities by solving problems, making decisions, embracing failures, experimenting with alternative approaches etc.

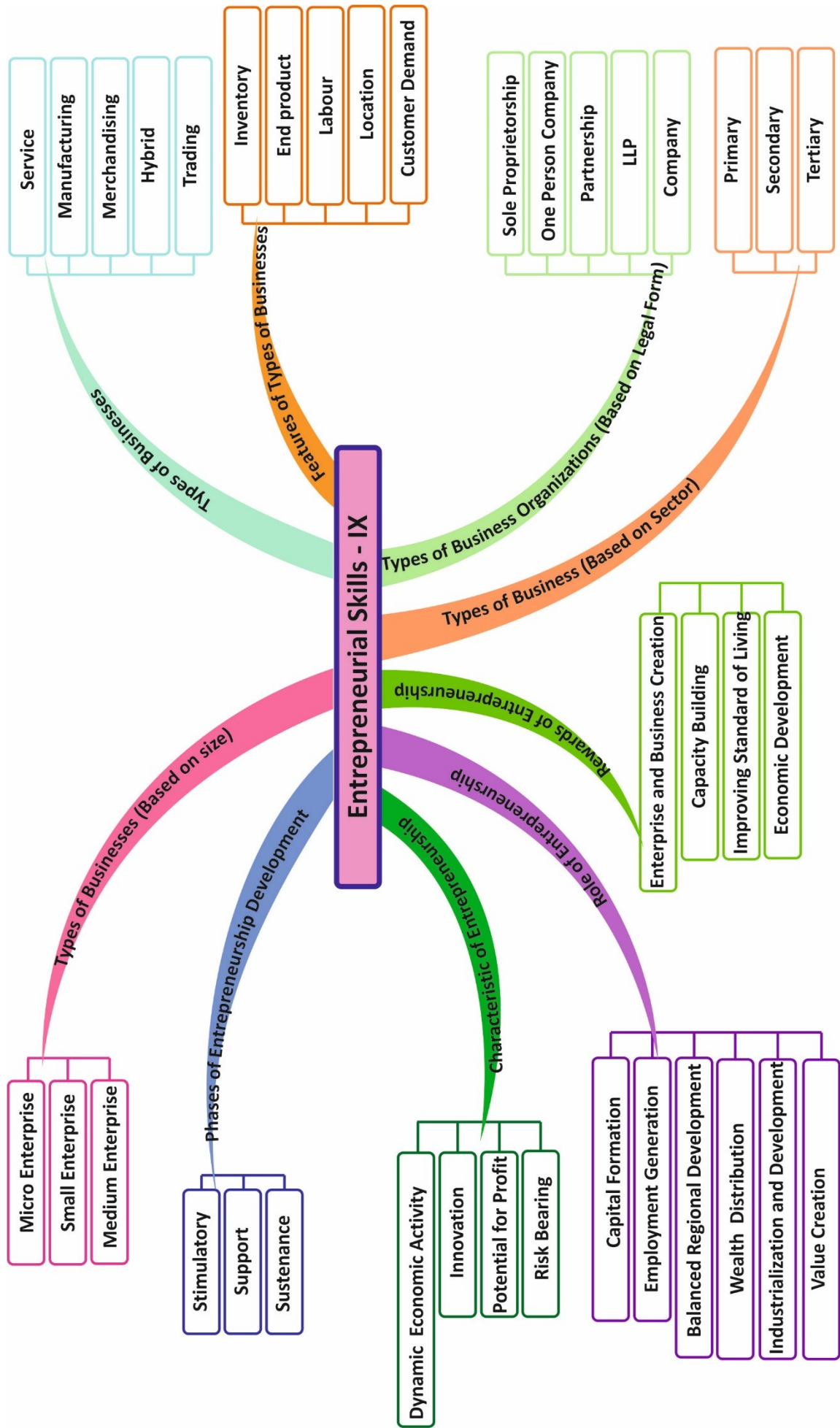
9.4.4 Improved Standard of Living: With entrepreneurship, customers have many options of choosing from different products and services to solve the same purpose. This variety and availability of improved goods and services offered by enterprises leads to higher standards of living.



Skill- Based Activities

- I. Explore the world of entrepreneurship
 - Discuss in groups and prepare a chart to explain advantages of entrepreneurship, based on its characteristics, role and rewards.
 - Interact with 5 entrepreneurs in your community OR Read about any 5 successful Indian entrepreneurs and their success stories.
 - From the interviews/stories, identify at least 15 skills and qualities of a successful entrepreneur.







9. Introduction

We cannot imagine our lives without the environment around us. Everything that surrounds us comprises Environment - Living beings, flora and fauna, non-living things, the vegetation, climate, natural resources. Each of these affect us in one or the other way and in turn our actions also have a deep impact of all these, largely called as the environment.

According to Collins' English Dictionary, The **environment** consists of the particular natural surroundings in which we live or exist, considered in relation to their physical characteristics or weather conditions.

2. Relationship Between Society and Environment



The society constitutes of group of people living together in a community, a village, a city, a town, a states or a country. It is these group of people with their own set of ideologies and beliefs that affects the environment. If a group of people believe that rivers are sacred, then all people belonging to that group will resonate the practices that support their belief. If a group of people believe that killing of animals is a heinous crime, the people in that community will reflect it in their

behaviour shaping their relationship. But, if a group of people is greedy and is concerned to accumulate wealth, their actions will echo their mind-set and will have adverse effect on the environment.

As said every action have an equal and opposite reaction. So, is this true in case of the Society and Environment. To fulfil our greed, we are exploiting the resources nature has given us, while nature has its own way to show its fury. Issues like Global Warming, Climate change, other man-made disasters are a few that have a directly implication of man's activities. Natural Disasters like earthquakes have a direct impact on the economy hence affecting the society. Hence, it may be concluded that both society and environment are interdependent and cannot exist in isolation.

3. Ecosystem and Factors Causing Imbalance

Ecological Imbalance is caused when natural or a man-made disturbance disrupts the natural balance of an ecosystem. Human activities have a direct implication in causing ecological imbalance.

Following are the man-made disruption that causes ecological imbalance:

3.1. Deforestation: Due to increase in population the need for building houses has emerged. To overcome this challenge more and more houses are built in hilly regions due to which trees are cut. Also, in order to maintain the life style a lot of forests have been cut. With increasing deforestation, problem related to climate change has risen in past few decades. Many species of birds and other animals are on verge of extinct due to changing climatic conditions.

3.2. Degradation of Land and Soil Erosion: Deforestation has also given rise to problems like soil erosion and degrading quality of land. The poor quality of land and soil is resulting in rising health concerns for human beings. It is also leading to problems for herbivorous animals causing concerns of their extinction. Many animal species found in mountains are losing their habitat because of which their existence is becoming difficult.

3.3. Overexploitation of Resources: To satisfy our needs, we are not only using the resources available to us but we are exploiting them as well. We are great tons of waste due to over usage of resources making it difficult for our ownselves to breathe fresh air. The overexploitation of resources is also one of the factors adding to degradation of land in urban cities. The natural resources that take millions of years to prepare are being used at a rampant rate by us that is not only causing pollution but will make the life of the future generation also difficult.

3.4. Industrial and Atmospheric Pollution: The rising number of industries is one of the major concerns these days. The pollution caused by these industries and factories is not limited to air. The presence of the industries near the rivers to dispose the waste is causing water pollution. Some industries also dump their waste in landfills, mounting to increase in land pollution. Though number of measure has been taken to curb this problem but still a lot of efforts need to be made in order to put a stop to atmospheric pollution.

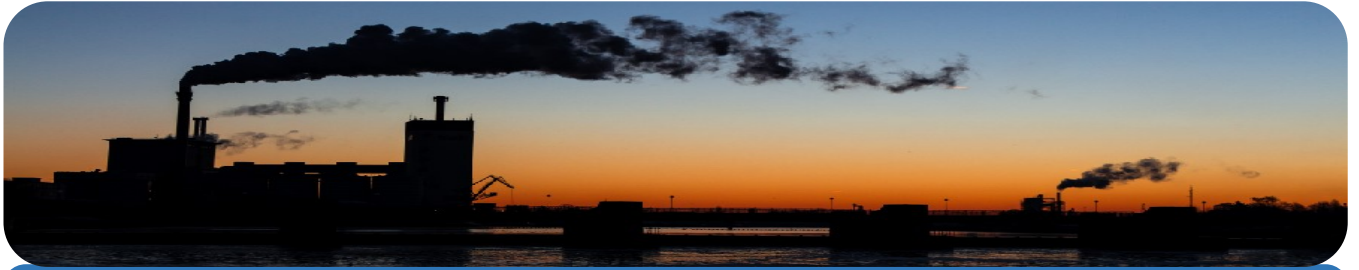


Class_IX Factors Causing imbalance in Ecosystem

3.5. Faulty Mining Practices: Large scale mining has cause conversion of agricultural land and forests to become stockyards, railway tracks, roads etc. Not only this, mining dust is also degrading

the quality of air around us. Improper disposal of mining waste is resulting in degradation of land. Faulty mining practices have severe implication on human health.

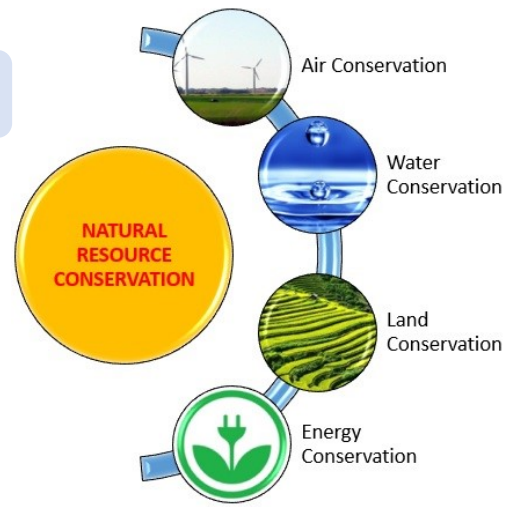
A 1 **ACTIVITY**



Discuss in groups Hazards of Deteriorating environment, factors affecting same and what could be the probable solutions.

4. Natural Resource Conservation

Natural resources can largely be seen as Air, Water, Land (Soil and Forest), Energy. In the prevalent time where pollution levels have risen to the extent of causing health hazards, conservation of these resources is the primary concern. Conservation is the key to the world environmental problems. This means that we need to judiciously use the resources around us and without wasting them.



Class_IX_ Natural Resource Conservation

4.1. Air Conservation: At largely level, minimizing the release of toxins and green-house gases by the Industries will help us conserve fresh air. Every individual can also contribute in preserving the quality of air by adopting environmental friendly ways. Using public transport or carpooling, use of electric vehicles, vehicles that run on natural gases rather than petrol or diesel, pollution check and maintenance of vehicles at regular interval are few ways in which we can ensure that air pollution is not caused. Use green ways to renovate and construct buildings and houses will also help reduce air pollution.

4.2. Water Conservation: Scarcity of Water has caused International agencies to act immediately. Wisely using the water is need of the hour. Adopting Rain Water Harvesting Systems in our communities and waste water treatment plants shall contribute in conserving water for future generations. Judiciously using water in our day-to-day life, using water aerators in taps shall also help preserving water. Correspondingly, ensuring that the marine life is not disturbed due to improper waste management will also contribute in preserving quality of water. About 70% of our planet

consists of water, and if this water is available to us in impure form, it will be as good as not having any water to support life on Earth.

4.3 Land Conservation: Conserving land means to act at two levels. First, promoting afforestation and discouraging deforestation for material benefit. This will help promote other life forms to survive and help to maintain balance in the eco system. Second, improving the quality of soil, most of the health concerns today are due to poor quality of food. The landfills and degradation of land and agricultural fields is resulting in poor quality of crops leading to major health concerns. The call of the action is to manage our waste using 4Rs' and 1U – REFUSE, REDUCE, REUSE, RECYCLE and UPCYCLE. Segregating the waste at source should become a part of our life in order to manage waste generation.

4.4. Energy Conservation: We use a lot of non-renewable sources of energy to fulfil our daily needs. Conservation of Energy means to conserve these resources and use alternative sources of energy to meet our needs such as wind, solar, wave energy. Using these means of energy will promote sustainable living and will ensure that other resources are available for future generation use. Using Air conditioner with doors closed, not keeping the door of refrigerator open for too long, keeping the lights and fans switched off while not in use, using public transport or carpooling etc. are some practices that we can adopt in our daily life to conserve energy.

Project Work

Prepare posters advertising the environmental friendly ways for the conservation of Natural Resources.

5. Green Economy and Its Importance



Class_IX_Green economy & its importance

Collins' English Dictionary defines Green Economy as Biological economy that is concerned with *renewable energy, green buildings, clean transportation, water, waste and land management.*

This would mean that without compromising on the ecological aspects we create options that promote the economy. According to UNEP (United Nations Environment Program) a green economy is defined as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by

public and private investment into such economic activities, infrastructure and assets that allow

