

TOUCHPAD

IT-402 Ver. 4.0

9

TEACHER'S MANUAL

Extended Support for Teachers



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DEVELOPMENT MILESTONES IN A CHILD

Development milestones are a set of functional skills or age-specific tasks that most children can do at a certain age. These milestones help the teacher identify and understand how children differ in different age groups.



Age
5 - 8 Years

Physical

- First permanent tooth erupts
- Shows mature throwing and catching patterns
- Writing is now smaller and more readable
- Drawings are now more detailed, organised and have a sense of depth

Cognitive

- Attention continues to improve, becomes more selective and adaptable
- Recall, scripted memory, and auto-biographical memory improves
- Counts on and counts down, engaging in simple addition and subtraction
- Thoughts are now more logical

Language

- Vocabulary reaches about 10,000 words
- Vocabulary increases rapidly throughout middle childhood

Emotional/ Social

- Ability to predict and interpret emotional reactions of others enhances
- Relies more on language to express empathy
- Self-conscious emotions of pride and guilt are governed by personal responsibility
- Attends to facial and situational cues in interpreting another's feelings
- Peer interaction is now more prosocial, and physical aggression declines

“ If you cannot do great things, do small things in a great way. ”

Age
9 - 11 Years

Physical

- Motor skills develop resulting in enhanced reflexes

Cognitive

- Applies several memory strategies at once
- Cognitive self-regulation is now improved

Language

- Ability to use complex grammatical constructions enhances
- Conversational strategies are now more refined

Emotional/ Social

- Self-esteem tends to rise
- Peer groups emerge

Age
11 - 20 Years

Physical

- If a girl, reaches peak of growth spurt
- If a girl, motor performance gradually increases and then levels off
- If a boy, reaches peak and then completes growth spurt
- If a boy, motor performance increases dramatically

Cognitive

- Is now more self-conscious and self-focused
- Becomes a better everyday planner and decision maker

Emotional/ Social

- May show increased gender stereotyping of attitudes and behaviour
- May have a conventional moral orientation

Managing the children's learning needs according to their developmental milestones is the key to a successful teaching-learning transaction in the classroom.

“Family is the most important thing in the world.”

TEACHING PEDAGOGIES



Lesson Plans

A lesson plan is the instructor's road map which specifies what students need to learn and how it can be done effectively during the class time. A lesson plan helps teachers in the classroom by providing a detailed outline to follow in each class.

A lesson plan addresses and integrates three key components:

- + Learning objectives
- + Learning activities
- + Assessment to check the student's understanding

A lesson plan provides an outline of the teaching goals:

Before the class

1. Identify the learning objectives.
2. Plan the lesson in an engaging and meaningful manner.
3. Plan to assess student's understanding.
4. Plan for a lesson closure.

During the class

Present the lesson plan.

After the class

Reflect on what worked well and why. If needed, revise the lesson plan.

“Knowing yourself is the beginning of all wisdom.”

Teaching Strategies

Numerous strategies have evolved over the years to facilitate the teaching-learning process in the classrooms.



Bloom's Taxonomy

Bloom's Taxonomy was created by Dr Benjamin Bloom and several of his colleagues, to promote higher forms of thinking in education instead of rote learning. There are three domains of learning: cognitive (mental), affective (emotional), and psychomotor (physical). However, when we refer to Bloom's Taxonomy we speak of the cognitive domain. Bloom's Taxonomy is a list of cognitive skills that is used by teachers to determine the level of thinking their students have achieved. As a teacher, one should attempt to move students up the taxonomy as they progress in their knowledge.



Teachers should focus on helping students to remember information before expecting them to understand it, helping them understand it before expecting them to apply it to a new situation, and so on.

“ If you have no confidence in self,
you are twice defeated in the race of life. ”

Part-A: Employability Skills**1** Communication Skills-I**Teaching Objectives**

Students will learn about

- ✦ Importance of Communication
- ✦ Elements of the communication Cycle
- ✦ 7C's of Effective Communication
- ✦ Perspective in Communication

SESSION 1: Introduction to Communication**Teaching Plan**

Number of Periods	
Theory	Practical
4	2

Begin the chapter by discussing the importance of communication and where is it required? Tell the students about the elements of communication cycle, you may take an example of 'your teaching in the class' as it is also a form of communication. Try to give special importance to 'feedback' element while explaining each element.

Discuss with the students 7C's of effective communication i.e. the communication should be clear, concise, concrete, correct, coherent, complete and courteous.

Tell your students about how perspective in any communication affects the overall exchange of ideas. Try to communicate each factor that affects the perspective.

Extension

Ask the students some oral questions based on this session.

- Q. Why is communication important? Explain with example.
- Q. Name the elements of communication sequentially.
- Q. Tell about any four C's of communication.

Q. Name any two important factors that effect the perspective in communication.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercises given on the page 25.

SESSION 2: Verbal Communication

Teaching Objectives

Students will learn about

- ✦ Methods of Verbal Communication
- ✦ Advantages and Disadvantages of Verbal Communication
- ✦ 3P's of Public Speaking

Teaching Plan

Initiate with making your students understand what is verbal and what is non-verbal communication. Explain to them the different methods of verbal communication and tell them about the advantages and disadvantages of verbal communication.

Discuss with them the 3P's of Public speaking: Prepare, Practice, Perform.

Extension

Ask the students some oral questions based on this session.

- Q. What is verbal communication?
- Q. Name two methods of verbal communication?
- Q. Tell any two major advantages and disadvantages of verbal communication.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 28.

SESSION 3: Non-Verbal Communication

Teaching Objectives

Students will learn about

- ✦ Definition of Non-Verbal Communication
- ✦ Importance of Non-Verbal communication
- ✦ Types of Non-Verbal communication
- ✦ Advantages and Disadvantages of Non-Verbal Communication
- ✦ Visual Communication
- ✦ Advantages and Disadvantages of Visual Communication

Teaching Plan

Begin with the explanation that non-verbal communication is the one that do not require words. Discuss with the students about the importance of Non-Verbal Communication, tell them about different types of Non-verbal communication that we experience in our day today life like Eye Contact, Posture, Touch etc.

Explain to the students the advantages and disadvantages of Non-Verbal communication.

Discuss with the students about visual communication and how is it important, giving examples from our daily life like the No-Smoking or the No-Honking sign board. Also tell about the advantages and disadvantages of Visual Communication in general.

Extension

Ask the students some oral questions based on this session.

- Q. What is non-verbal communication?
- Q. Where do we examples of non-verbal communication id daily life?
- Q. What are the types of non-Verbal communication?
- Q. Tell anyone advantage and disadvantage of verbal and non-Verbal Communication.
- Q. How is visual communication a part of non-verbal communication?
- Q. Why is Visual communication advantageous in certain situations?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 33.

SESSION 4: Writing Skills: Parts of Speech

Teaching Objectives

Students will learn about

- ✦ Using capitals
- ✦ Punctuation
- ✦ Parts of Speech

Teaching Plan

Explain the importance of sentences for students to convey their messages. Tell them where do we use capitals in sentences. Mention all the signs of punctuation and discuss their usage with example for each. Name each part of speech with meaning and purpose.

Extension

Ask the students some oral questions based on this session.

- Q. What is the use of capitals in general in a sentence?



Q. What is the difference between the usage of full stop and comma?

Q. What are conjunctions and interjections?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 37 and 38.

SESSION 5: Writing Skills: Sentences

Teaching Objectives

Students will learn about

- ✦ Parts of Sentence
- ✦ Types of Objects
- ✦ Active and Passive Voice
- ✦ Construction of Paragraph

Teaching Plan

Begin the session with the discussion of subject, verb and object in a sentence. Then tell your students about the types of object in a sentence i.e. direct and indirect. Talk about active and passive voice with suitable examples. Finally discuss the four types of sentences as follows:

1. Assertive/Declarative Sentences
2. Interrogative Sentences
3. Exclamatory Sentences
4. Imperative Sentences

Then give your students a quick overview of how to construct a paragraph with appropriate beginning, indentation and focus on the main theme.

Extension

Ask the students some oral questions based on this session.

- Q. What is subject, verb and object?
- Q. What do you understand by direct and indirect object?
- Q. What are different types of sentences, mention with their examples.
- Q. What are the basic rules to construct a paragraph?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 41 and 42.

SESSION 6: Pronunciation Basics

Teaching Objectives

Students will learn about

- ✦ Speaking Correctly
- ✦ Phonetics
- ✦ Types of Sounds

Teaching Plan

Engage your students into this session by asking them to speak few words and see if they pronounce them correctly. Let them know about phonetics i.e. sounds we make when we speak. Give a basic discussion of Vowels, Diphthongs and Consonants.

Extension

Ask the students some oral questions based on this session.

- Q. What is pronunciation?
- Q. What is phonetics?
- Q. What is a diphthong?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 44.

SESSION 7: Greetings and Introduction

Teaching Objectives

Students will learn about

- ✦ Types of Greetings
- ✦ Introducing Yourself and Others

Teaching Plan

Introduce students to the Formal and Informal greetings and greetings on the basis time of day. Then give a small overview of self-Introduction and Introducing others.

Extension

Ask the students some oral questions based on this session.

- Q. Differentiate between formal and informal greetings.
- Q. How would you introduce others?



Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 45 and 46.

SESSION 8: Talking About Self

Teaching Objectives

Students will learn about

- ✦ Talking About Yourself
- ✦ Filling Out A Form

Teaching Plan

Discuss with the students how to introduce yourself and giving an example for the same. Explain to them how fill out a form.

Extension

Ask the students some oral questions based on this session.

- Q. How to start introducing yourself?
- Q. What should be taken care of while filling out a form?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 47.

SESSION 7: Asking Questions I

Teaching Objectives

Students will learn about

- ✦ Need for Asking Questions
- ✦ Using the 5W+1H Method

Teaching Plan

Explain to the students using a suitable example why asking questions is necessary? Explain to them the comprehensive method of 5W+1H of asking questions.

Extension

Ask the students some oral questions based on this session.

- Q. Give important points to tell why asking questions is necessary?
- Q. What is the full form of 5W and 1H method?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 48.

SESSION 10: Asking Questions II

Teaching Objectives

Students will learn about

- ✦ Types of Questions- Framing Open-ended and Close-ended Questions.

Teaching Plan

Explain to the students the ways of framing Close-ended or Open-ended questions and what kind of responses do they get?

Extension

Ask the students some oral questions based on this session.

- Q. Why are questions important?
- Q. How do we respond Close-ended questions?
- Q. What words are used to create Open-ended Questions?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 50.

2 Self Management Skills – I

Teaching Objectives

Students will learn about

- ✦ Positive Results of Self-Management
- ✦ Skills of Self-Management

SESSION 1: : Introduction to Self-Management

Teaching Plan

Begin the chapter by Introduction of Self-Management and how it helps to regulate your attitude. Discuss with the students using a suitable example how efficient Self-Management makes your life

Number of Periods	
Theory	Practical
4	2

easy and what positive results do we see when we employ it. Discuss with the students, the skills of self-management that help in regulating day-to-day activities.

1. Self Awareness
2. Self-Control
3. Self-Confidence
4. Problem Solving
5. Self-Motivation
6. Personal Hygiene and Grooming
7. Positive Thinking
8. Teamwork
9. Time Management
10. Goal Setting

Extension

Ask the students some oral questions based on this session.

- Q. What is the need of Self-Management in our life?
- Q. Name few skills of Self-Management?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 55.

SESSION 2: Self-awareness – Strength and Weakness Analysis

Teaching Objectives

Students will learn about

- ✦ Analysing Strength and Weakness
- ✦ Identifying Strength and Weakness
- ✦ Difference between Interests and Abilities

Teaching Plan

Introduce the session by telling students that “Knowing Yourself” is an important aspect to achieve personal and professional goals. Let them know, this helps us in identifying strengths and weaknesses. Discuss that once you identify Strength and Weakness, you can identify the difference between interests and abilities.

Extension

Ask the students some oral questions based on this session.

- Q. What is a strength and weakness in a person?
- Q. How can we identify strength and weakness?
- Q. What is the difference between Interest and Ability?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 58.

SESSION 3: Self-confidence

Teaching Objectives

Students will learn about

- ✦ Self Confidence
- ✦ Factors boosting your Self-Confidence
- ✦ Qualities of Self-Confidence
- ✦ Building Self-Confidence

Teaching Plan

Introduce why self confidence is important. Tell the students how can they develop self confidence and discuss each factor boosting Self-Confidence like Social, Cultural and Physical Factors. Let your students know about qualities of a Self-Confident people Like Self-belief, Hard work, Positive attitude and Commitment.

Explain to the students how Building Self-Confidence is built using the following steps:

1. Appreciate Achievements and Accept Faliures
2. Have a Goal and Take Steps Towards it
3. Always Look at the Good Side and be Happy

Discuss the Self-Confidence Building Tips as follows:

1. Think Positively
2. Stay Happy with Small Things
3. Stay Clean, Hygienic and Smart
4. Grooming
5. Set Achievable Goals
6. Celebrate Successes
7. Practice Self-care

Then tell the students about the factors that cause low Self-Confidence.

Extension

Ask the students some oral questions based on this session.



- Q. What is self-confidence?
- Q. What are the factors that boost Self-Confidence?
- Q. Tell some qualities of Self-Confident People?
- Q. What are the steps to build Self-Confidence?
- Q. Give some tips to build self-confidence.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 63.

SESSION 4: Positive Thinking

Teaching Objectives

Students will learn about

- ✦ Positive Thinking and its Importance
- ✦ How to keep your Thinking Positive

Teaching Plan

Begin your chapter by giving an example of how positive thinking can actually turn around your life. Discuss the following importance of Positive Thinking one by one:

1. Improves Mental Health
2. Enhances Physical Health
3. Boosts Resilience
4. Improves Relationship
5. Increases Success and Achievement

Discuss the SMILE way to start your day in a positive way:

S – Start your Day in a Positive Way

M – Manage Time to Relax

I – Imagine the Best in Any Situation

L – Learn to Accept Feedback Positively

E – Express Gratitude

Extension

Ask the students some oral questions based on this session.

- Q. What is positive thinking?
- Q. What is the importance of positive thinking?

Q. Tell the full form of acronym 'SMILE'?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 66 and 67.

SESSION 5: Personal Hygiene

Teaching Objectives

Students will learn about

- ✦ Steps to Personal Hygiene
- ✦ Essential Steps of Hand Washing

Teaching Plan

Discuss with the students how personal hygiene is important. Elaborate 3 steps of personal hygiene i.e. CARE, WASH, AVOID. Discuss with them the essential steps one should follow while washing our hands.

Extension

Ask the students some oral questions based on this session.

- Q. Why is personal hygiene important?
- Q. What are the three steps to Personal Hygiene?
- Q. Tell the essential steps we should follow for our hand wash.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 69 and 70.

SESSION 6: Grooming

Teaching Objectives

Students will learn about

- ✦ Grooming and its Importance
- ✦ Guidelines for Dressing and Grooming

Teaching Plan

Begin the chapter by discussing grooming and its importance telling that, it is the practise of maintaining overall well-being. Tell the students how to handle clothes, hair and face.



Extension

Ask the students some oral questions based on this session.

Q. What is Grooming?

Q. Give few guidelines for dressing and grooming.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 72.

3

ICT Skills-I

Teaching Objectives

Students will learn about

- ✦ Role and importance of ICT at different places.
- ✦ ICT at Various Other Sectors

SESSION 1: Introduction to ICT

Teaching Plan

Number of Periods	
Theory	Practical
4	3

Begin the session with the introduction of Information and Communication Technology, how is it perceived in digital technology and how UNESCO defines it.

Discuss the role and importance of ICT and tell the students some basic ICT skills required by everyone. Now begin explaining the usage of ICT at workplace, at home and in our Daily Life.

Tell the usage of ICT in various other sectors like Agriculture, Retail, Beauty and Wellness.

Extension

Ask the students some oral questions based on this session.

Q. What is ICT?

Q. What are the basic ICT skills that are essential for everyone?

Q. How is ICT important in our daily life?

Q. What is the use of ICT in Agriculture and Health Care?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 75.

SESSION 2: ICT Tools: Smartphones and Tablets - I

Teaching Objectives

Students will learn about

- ✦ Smartphones
- ✦ Tablet
- ✦ Radio
- ✦ Television
- ✦ E-Mail
- ✦ Application

Teaching Plan

Introduce the most common tools like Smartphones, Tablet, Radio, Television, E-Mail etc. Along with it find the difference between Smartphone and a Tablet.

Discuss the most commonly used Apps and their use.

Extension

Ask the students some oral questions based on this session.

- Q. What is a Smartphone? How is it useful?
2. What is a Tablet? What are the advantages of a tablet over a smartphone?
3. What is the use of Email and Photos app?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 79.

SESSION 3: Computer Care and Maintenance

Teaching Objectives

Students will learn about

- ✦ Mobile Device Layout
- ✦ Basic features of a Mobile Device

Teaching Plan

As you go on with this chapter discuss the mobile device layout with the commonly used functions of your smartphone:

1. Power Button
2. Touchscreen



3. Back Button
4. Microphone
5. Menu Button
6. Home Button
7. Camera
8. Earpiece
9. Volume Buttons

Tell your students about the basic features of a Mobile Device, then what does a Home Screen of a mobile device has and also tell about the basic gestures used while using the mobile.

Extension

Ask the students some oral questions based on this session.

- Q. What is the use of Home Button and Back Button?
- Q. What is GPS and Touchscreen?
- Q. What does Status Bar and Dock do?
- Q. What is the use of pinch and drag?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 83.

SESSION 4: Parts of a Computer and Peripherals

Teaching Objectives

Students will learn about

- ✦ Hardware-Input, Output and peripheral devices
- ✦ Central Processing Unit
- ✦ Computer Memory
- ✦ Components of a Computer System – Motherboard, SMPS, Processor, Expansion Card, Ports and Connections.

Teaching Plan

Begin the chapter by introducing the basic parts of a computer like Hardware devices – Input, Output and Peripherals. Discuss the use of following input devices:

1. Keyboard
2. Mouse
3. Joystick

4. Scanner
5. Optical Mark Reader
6. Magnetic Ink Character Reader
7. Light Pen
8. Barcode Reader
9. Microphone
10. Digital Camera
11. Web Camera

Set up a discussion about the following output devices: Printer, Plotter, Speaker, Monitor, Liquid Crystal Display Monitors, Light Emitting Diode Monitors. Tell the students of benefits of LED over CRT and LCD Monitors.

Tell the students about Central Processing Unit as a 'Brain of a Computer' and tell about its functional elements namely Arithmetic Logic Unit, Control Unit, Memory Unit. Discuss few things about registers also.

Tell the students about Computer Memory, Memory Storage Units and Primary Memory, Secondary Memory and other components like Motherboard, SMPS, Processor, Expansion Card, Ports and Connections like Video Ports, DVI, Display Port, High Definition Media Interface, USB, Ethernet Port, RJ – 11 and FireWire.

Extension

Ask the students some oral questions based on this session.

- Q. What is the difference between input and output devices? Explain with example.
- Q. How do we measure Speed of Output devices?
- Q. What is the difference between Impact and Non-Impact Printer?
- Q. What are the three functional Elements of a CPU?
- Q. What is Computer Memory and what are its different units. Tell their relation as well.
- Q. Differentiate between RAM and ROM.
- Q. What is Pen Drive and Memory Stick?
- Q. What is SMPS, DVI and HDMI?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 104 and 105.



SESSION 5: Basic Computer Operations

Teaching Objectives

Students will learn about

- ✦ Software and its types
- ✦ Application Software
- ✦ System Software
- ✦ Starting a Computer
- ✦ Using Keyboard and Mouse
- ✦ Shutting down a Computer

Teaching Plan

Begin this session with a simple explanation of what is a software and how does it serve us? Then following it, explain Application Software and System Software to the students. Discuss with the students, the most commonly used System Software i.e. Microsoft Windows along with its features.

Show your students how to start a computer and all the basic functions that are performed when a computer is started. Describe the steps of logging in and logging out. Introduce the usage of keyboard and mouse. Discuss different types of keys in keyboard and functions performed using mouse.

Show the steps of shutting down a system.

Extension

Ask the students some oral questions based on this session.

- Q. What is a software? Define its broad categories.
- Q. Give any 4 features of Windows.
- Q. Name some punctuation keys.
- Q. What are command keys?
- Q. How do you shut down a system?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 103.

SESSION 6: Performing Basic File Operations

Teaching Objectives

Students will learn about

- ✦ File Management
- ✦ Creating a File

✦ Creating a Folder

Teaching Plan

Explain to the students about how different types of files are kept in a computer system. Discuss with the students the difference between files and folders with the help of examples.

Step by step tell the students how to create a new folder and following it tell how to create a new file and save it with a desired a name.

Make the students try out the Lab Assignment N Activity on page 107.

Extension

Ask the students some oral questions based on this session.

Q. What is file management?

Q. What is the difference between a file and a folder?

Q. What are the common extensions of Image and music files?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 108 and 109.

SESSION 7: Communication and Networking – Basics of Internet

Teaching Objectives

Students will learn about

✦ Internet and its uses

✦ Connecting to Internet- Types of Connections, Bandwidth

Teaching Plan

Begin the session with the introduction of Internet and its benefits in general. Tell the students about the common benefits of internet that most people are enjoying.

Explain to the students about the basic things that you require to connect to the internet like Device, Connection, Internet Service Provider. Tell the students about the types of connections like wired and wireless connection. Explain the concept of Bandwidth and the role of Internet Browser.

Extension

Ask the students some oral questions based on this session.

Q. What is Internet?

Q. What are the uses of Internet?

Q. How do we connect to the internet?



Q. What are the types of connections?

Q. What is Bandwidth?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 108 and 109.

SESSION 8: Communication and Networking – Internet Browsing

Teaching Objectives

Students will learn about

- ✦ World Wide Web
- ✦ Basic Internet Terms

Teaching Plan

Introduce the session by telling about the World Wide Web and that it contains images, graphics, audio and video etc.

Go on explaining the students about basic Internet Terms like:

1. Web Page
2. Website
3. Web Browser with their features and steps of using it
4. Domain Name
5. Web Servers
6. Protocol
7. Uniform Resource Locator and its categories

Extension

Ask the students some oral questions based on this session.

Q. What is WWW?

Q. What are the main features of any web browser?

Q. What is URL? Explain the difference between Absolute and Relative URL?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 118.

SESSION 9: Communication and Networking – Introduction to e-Mail

Teaching Objectives

Students will learn about

- ✦ Parts of e-mail address
- ✦ Advantages of Email
- ✦ Similarity between Email and Postal Letters
- ✦ Limitations of an Email

Teaching Plan

Begin the session by introducing an e-mail address and its two parts namely - User Name and Domain Name.

Discuss with your students the following advantages of an E-mail

1. Fast
2. Cost-Effective
3. Convenience
4. Resource Saving
5. Maintenance of Record
6. Resusable

Tell them about the similarity between Email and Postal Letters and then tell about the limitations of an Email. Describe the two kind of E-mail services namely Webmail and Email Applications.

Extension

Ask the students some oral questions based on this session.

- Q. What is an email address? What are its two parts?
- Q. Give two advantages of an E-mail.
- Q. Give any one similarity between Email and Postal Letters.
- Q. What is the difference between Webmail and Email Application?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 122.

SESSION 10: Communication and Networking – Creating an e-Mail Account

Teaching Objectives

Students will learn about

- ✦ Steps to create an email account



Teaching Plan

Give your students a walk through of all the steps given, for the creation of an email account.

Extension

Ask the students some oral questions based on this session.

Q. How is it confirmed that person creating the email account is not a robot?

Q. What is the use of recovery mail?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 127.

SESSION 11: Communication and Networking – Writing an e-Mail

Teaching Objectives

Students will learn about

- ✦ Composing and Sending E-mail Messages
- ✦ Attaching a File to an e-Mail
- ✦ Managing Folders

Teaching Plan

Begin the explanation of the session with Composing and sending an email with your students, then send another email for them with a single or multiple attachments.

Show you students the different folder in an email account and explain their usage.

Extension

Ask the students some oral questions based on this session.

Q. Which option is used to begin with, for sending an email?

Q. What is the difference between Junk and Trash?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 132.

SESSION 12: Communication and Networking – Receiving and Replying to e-mails

Teaching Objectives

Students will learn about

- ✦ Receiving an E-Mail
- ✦ Replying to E-Mail

- ✦ Forwarding to E-Mail
- ✦ Deleting an E-Mail

Teaching Plan

Begin your session with an explanation of how to receive an e-mail step by step, followed by the execution of steps for replying to e-mail. Show your students how to forward e-mail when desired. Finally explain how to delete an E-mail.

Extension

Ask the students some oral questions based on this session.

- Q. Where do we receive an e-mail?
- Q. Where is reply button in an e-mail?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 138.

4 Entrepreneurial Skills-I

Teaching Objectives

Students will learn about

- ✦ What is Entrepreneurship?
- ✦ Enterprise
- ✦ Successful Journey of an entrepreneur

SESSION 1: What is Entrepreneurship?

Number of Periods	
Theory	Practical
3	2

Teaching Plan

Define Entrepreneurship and elaborate its example. Explain the meaning of an enterprise, tell why it is important and how does it lead to the growth of society.

Elaborate the example of Riya and her journey from Creative Passion to successful Jewellery Entrepreneurship.

Extension

Ask the students some oral questions based on this session.

- Q. What is Entrepreneurship?

- Q. How do enterprises help society?
- Q. What important steps did Riya follow that made her successful?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 146.

SESSION 2: Role of Entrepreneurship

Teaching Objectives

Students will learn about

- ✦ Contribution of Entrepreneurship towards Development and improvement in the quality of life.

Teaching Plan

Discuss with the students about general contribution of entrepreneurship towards the society and to elaborate how is it working in favour of the country, tell the role it plays in the following spheres using suitable examples:

1. Economic Development
2. Social Development
3. Improved Standard of Living
4. Optimal Use of Resources
5. Quality and Affordability: Competitive Pricing for Products and Services

Extension

Ask the students some oral questions based on this session.

- Q. How do Entrepreneurship lead to social development?
- Q. Explain with examples, how standard of living is improved with the coming of more entrepreneurs?
- Q. How do we get more quality and affordability with the advent of Entrepreneurs?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 149 and 150.

SESSION 3: Qualities of a Successful Entrepreneur

Teaching Objectives

Students will learn about

- ✦ Traits of a Successful Entrepreneur
- ✦ Journey of a successful Entrepreneur

Teaching Plan

Begin your explanation of this session with the Traits of a Successful Entrepreneur following it, tell about the successful journey of a young entrepreneur named Arjun who loved creating things and he went on to become the creator of fun science kits liked by everyone and even used in schools.

Extension

Ask the students some oral questions based on this session.

Q. Tell some traits of a successful Entrepreneur.

Q. What challenges were faced by Arjun while he was creating his new kits?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 152 and 153.

SESSION 4: Distinguishing Characteristics of Entrepreneurship and Wage Employment

Teaching Objectives

Students will learn about

- ✦ Different Characteristics of Entrepreneurship and Wage Employment
- ✦ Common Reasons for Business Failures
- ✦ Wage Employment
- ✦ Difference between Wage employment and Entrepreneurship
- ✦ Benefits of Entrepreneurship

Teaching Plan

In this session, students shall be learning about the foundational difference between Entrepreneurship and Wage Employment, they will understand that in entrepreneurship they can make greater profits but the risk of losing is also greater.

Now the students will understand about the given distinguishing characteristics of Entrepreneurs:

1. Ability to Take Risks
2. Hard Work and Discipline
3. Adaptability and Flexibility
4. Knowledge of Products and Market Demand
5. Financial Literacy and Money Management
6. Effective Planning and Execution

Following it the students must learn about the common reasons for failure of a business that could from quality of Goods or Services to the level of risk taken.



Mak the meaning of Wage employment clear to the students.

Extension

Ask the students some oral questions based on this session.

Q. ?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 123 and 124.

SESSION 5: Business Activities and Its Types

Teaching Objectives

Students will learn about

- ✦ Business
- ✦ Types of Business Activities

Teaching Plan

Introduce your students to the basic definition of a business alongwith its main goals and example of a budding entrepreneur Amit whose passion of photography could be converted into a successful business venture by trying out various possibilities.

Then tell about the three foundational business activities with few examples.

Extension

Ask the students some oral questions based on this session.

- Q. What is Business?
- Q. What are the main goals of a business?
- Q. Name the types of business activities.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 159 and 160.

SESSION 6: Product, Service and Hybrid Businesses

Teaching Objectives

Students will learn about

- ✦ Product Business
- ✦ Service Business

- ✦ Hybrid Business
- ✦ Difference between Product and Service Business
- ✦ Types of Business found in our Community

Teaching Plan

Begin your session with how Product, Service and Hybrid businesses are foundationally different. Following it describe Product Business and its categories of Manufacturing Business and Trading Business. Then take your discussion to the exemplified explanation of Service Business telling about Pooja, The Event Planner and some more examples from your side.

Discuss the hybrid form of business that includes the features of both the types of businesses discussed previously, using the example of Nitin, the Art Studio and Coffee Bar Owner.

Elaborate the difference between Service and Product business under various aspects. Explain about the following types of businesses found in our community.

1. Sole Proprietorship
2. Partnership
3. Limited Liability Partnership
4. Cooperative Business
5. Limited Company
6. Corporation

Extension

Ask the students some oral questions based on this session.

- Q. What are two main types of product business?
- Q. How is a Hybrid business, a combination of product and service business?
- Q. Give few differences between Product and Service Business?
- Q. What is LLP and Cooperative Business?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 165 and 166.

SESSION 7: Entrepreneurship Development Process

Teaching Objectives

Students will learn about

- ✦ Entrepreneurship Development Process

Teaching Plan



Give a detailed explanation of how to start a business and delve into necessary skills and qualities that have marked the success of entrepreneurs like Falguni Nayar, the name behind successful online platform Nykaa. Tell about the steps that Falguni followed:

1. Idea
2. Getting Money and Material
3. Understanding Customer Needs
4. Improving Product/Service

Extension

Ask the students some oral questions based on this session.

Q. What are the general steps for starting a Business? Elaborate.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 169.

5

Green Skills–I

Teaching Objectives

Students will learn about

- ✦ Relationship between Society and Environment
- ✦ Ecosystem
- ✦ Natural Resources
- ✦ Factors causing imbalance in Ecosystem
- ✦ How to Save the Environment
- ✦ Implementing the 5 R's for effective Waste Management

SESSION 1: Society and Environment

Teaching Plan

Number of Periods	
Theory	Practical
4	2

Begin this session with explanation of all the things that make up our environment and how does society is affecting this environment. Tell the definition of ecosystem and discuss all the types of natural resources that we have namely:

1. Land Resources
2. Forest Resources

3. Water Resources
4. Mineral Resources
5. Food Resources
6. Energy Resources

Discuss few renewable resources and non-renewable resources like Water, Solar Energy, Wind, Biomass, Soil, Forests, Coal, Petroleum, LPG, Natural gas, Nuclear Energy, Minerals etc. Explain the difference between Inexhaustible Resources and Exhaustible resources.

Discuss how factors like population, overexploitation, deforestation, mining, Industrialisation and pollution are causing imbalance in ecosystem.

Enumerate few biodegradable and non-biodegradable pollutants with their definition. Describe three major types of pollution namely Land, Water and Air pollution. Tell the students about the effect of Climatic Change, Harmful radiation and Natural Disasters on our environment.

Now elaborate on the factors that are helpful in saving the environment like learning about through and for the environment. Tell them about the actions that can be taken for saving the environment. Finally conclude the session with discussion of the 5R's for Effective Waste Management.

Extension

Ask the students some oral questions based on this session.

- Q. What is ecosystem?
- Q. What are Natural resources and name its few types?
- Q. How does Mining cause imbalance in the ecosystem?
- Q. What is Land, Water and Air pollution?
- Q. What are the effects of Harmful Radiation and Natural Disasters?
- Q. What are the 5R's for effective waste management?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 179 and 180.

SESSION 2: Conserving Natural Resources

Teaching Objectives

Students will learn about

- ✦ Soil Conservation
- ✦ Water Conservation
- ✦ Energy Conservation
- ✦ Food Conservation
- ✦ Forest Conservation



Teaching Plan

Begin this session with the explanation of how conservation of energy is essential for maintaining the balance of our ecosystem and for ensuring the well-being of future generations. Explain your students the real meaning of conservation and the ultimate purpose of it.

Then one by one dive into the conservation of following and key methods to do it:

- Soil Conservation
- Water Conservation
- Energy Conservation
- Food Conservation

Let the students try out the Activity given on page 182.

Extension

Ask the students some oral questions based on this session.

Q. Why is conservation of natural resources essential?

Q. What are the key methods to conserve water?

Q. How do we conserve forests?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 183.

SESSION 3: Sustainable Development and Green Economy

Teaching Objectives

Students will learn about

- ✦ What is Sustainable Development?
- ✦ Green Growth
- ✦ Green Economy
- ✦ Green Skills
- ✦ Green Jobs
- ✦ Green Projects

Teaching Plan

Begin with the explanation of Sustainable development and discussing why is it important. Tell the key elements of sustainable development. Let the students know about the importance of Sustainable development.

Introduce 17 Sustainable Development Goals that are working on the critical issues faced by the businesses, governments and society.

Introduce the concept of Green Growth that ultimately makes an economy green. Define Green Consumer, followed by importance of Green Economy and Components of Green Economy given as follows:

1. Renewable Energy
2. Green Building
3. Well- managed Transport
4. Water Management
5. Waste Management
6. Land Management

Let the students know about the skill set needed for a green economy and try out the activity on page 187.

Make the students understand the importance of Green Skills for the economy. Let them know about green jobs and the sectors that require green jobs.

Conclude the session by introducing Green Projects in India, also tell about the targets these projects are meant to achieve.

Extension

Ask the students some oral questions based on this session.

- Q. What are the key elements of sustainable development?
- Q. What are 10th and 11th SDG?
- Q. What is Green Growth?
- Q. Name any 4 components of green economy?
- Q. What are Green Skills? What do they encompass?
- q. What are the important green skills in Forestry and Construction?
- Q. Tell in detail about any 2 green projects?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 192.



Part-B: Subject Specific Skills

Unit 1: INTRODUCTION TO IT-ITeS INDUSTRY

1

Introduction to IT-ITeS Industry

Teaching Objectives

Students will learn about

- ✦ Information Technology and Information Technology Enables Services
- ✦ BPO and its Types
- ✦ BPM Industry in India
- ✦ Application of IT

Teaching Plan

Begin the chapter by introducing Information Technology and hoe services like Customer Support, Administrative Services, Healthcare and Business Operations etc. are enable by Information Technology. Discuss with the students the full-form of term BPO, explain it, then discuss the different types of BPOs as follows:

1. Customer Support Services
2. Technical Support Services
3. Data-Entry Services
4. Accounting Services
5. Online Services

Also tell the students about other examples of services provided by BPO industry.

Explain to the students how Business Process Management Industry in India is leading to growth in Indian industry, also tell the factors working in its favour. Discuss the categories of IT-BPM industry.

Discuss the applications of IT as follows:

1. Home Computing

Number of Periods	
Theory	Practical
4	2

2. Everyday Life
3. Education- Anywhere classroom and LMS
4. Insurance
5. Marketing
6. Healthcare especially in Diagnostics
7. Science and Engineering
8. Research
9. Business
10. Entertainment
11. Library
12. Government and Public Service
13. Communication
14. It in New and Broadcasting
15. Social Networking
16. Banking

Extension

Ask the students some oral questions based on this session.

- Q. Name the categories in which opportunities in IT industry can be broadly classified.
- Q. In which area do ITes offer opportunities?
- Q. What are BPOs?
- Q. Name few services provided by BPO.
- Q. What are three categories of IT-BPM industry?
- Q. How IT is helpful in Communication?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 207 and 208.

1

Use Keyboard and Mouse for Data Entry

Teaching Objectives

Students will learn about

- ✦ Keyboarding Skills
- ✦ Types of Keys
- ✦ Typing Capital Letters, Symbols and Sentences
- ✦ Typing Ergonomics
- ✦ Positioning of Fingers on the Keyboard
- ✦ Pointing Devices - Mouse

Teaching Plan

Number of Periods	
Theory	Practical
4	3

Introduce why a person with high keyboarding skills is always preferred over a non-skilled one for educational and professional endeavors. Tell them about the types of keys on the keyboard, how to type capital letters and typing symbols.

Discuss with your students about the posture and hand position while working on a computer. Teach them to properly allocate their fingers on the keyboard. Tell them about successful keyboarding tips.

Tell them about the pointing devices and discuss in details the most common pointing device i.e. mouse and common terms related to it

Extension

Ask the students some oral questions based on this session.

- Q. What is the use of shift key?
- Q. What should be the placement of monitor with respect to your eyes?
- Q. Tell any 5 successful keyboarding tips.
- Q. Why is finger placement important?
- Q. What is the difference between drag and scroll?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 221 and 222.

Teaching Objectives

Students will learn about

- ✦ Using Typing Software
- ✦ Touch Typing Technique
- ✦ Rules of Touch Typing
- ✦ Beginners Typing Lessons
- ✦ Background and Text Colour
- ✦ Result Interpretation
- ✦ Student Statistics
- ✦ Lesson Editor
- ✦ Working with Lesson Editor
- ✦ Calculating the Typing Speed

Number of Periods

Theory	Practical
3	3

Teaching Plan

Introduce to the students the RapidTyping Tutor Software which is FOSS. Tell them about 3 stages of Touch Typing Technique. Discuss with them the rules and Tips for Touch Typing. Tell the students about the components of the RapidTyping Tutor, then begin the first typing lesson of students using the steps explained in the book.

Tell the students that they can change their background and text colour in the RapidTyping Tutor Software and the typing result can be interpreted in it. Let students know that they can even edit their lessons and courses in Lesson Editor Tab.

Inform the students that they can use the tutor for calculating the Typing Speed, Typing Accuracy and Typing Rhythm.

Extension

Ask the students some oral questions based on this session.

- Q. Tell few tips for learning Touch Typing.
- Q. Name any two Components of RapidTyping Tutor.
- Q. What parameters interpret the Typist capability?
- Q. What is the use of Error window?
- Q. How do we calculate the Typing speed and accuracy?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 240 and 241.

Unit 3: DIGITAL DOCUMENTATION

1

Create a Document Using a Word Processor

Teaching Objectives

Students will learn about

- ★ Word Processor
- ★ Common Applications for Word Processing
- ★ LibreOffice – LibreOffice Writer
- ★ Parts of LibreOffice Writer
- ★ Creating a New Document and basic functions on it

Teaching Plan

Number of Periods	
Theory	Practical
2	3

In the beginning of the chapter discuss with the students about typewriters were not that beneficial which finally led to the development of Word Processors. Tell the students about the most common word processors in industry and introduce LibreOffice Writer.

Show practically, how to open LibreOffice and what are the different parts of Writer window in order that students may understand your further instructions quickly.

Explain with practical how to create a new document in LibreOffice Writer and execute the following functions in front of the students:

1. Typing Text in a Document
2. Saving a Document
3. Saving a Document with Another Name
4. Saving a Document with Password
5. Opening an Existing Document
6. Closing a Document

Let the students try out the Lab Assignment given on page 249.

Extension

Ask the students some oral questions based on this session.

- Q. What are the disadvantages of using a typewriter?
- Q. Give few features of word processing.
- Q. Name any 3 most popular word processing applications.
- Q. On which platforms does LibreOffice suite work?
- Q. Name any 5 important parts of LibreOffice Writer.
- Q. How do LibreOffice Writer help us to protect our documents?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 251.

2 Apply Editing Features

Teaching Objectives

Students will learn about

- ✦ Cursor movements
- ✦ Basics of Mouse Pointer, Undo and Redo
- ✦ Selecting Text
- ✦ Copy, paste, move, find and replace text
- ✦ Spelling and Grammar- Spell Check, Thesaurus etc

Teaching Plan

In order to teach students about Editing the Text, you first have to tell them about different ways of selecting the text and even before that they should know how the cursor movements will help them do so. So, explain all the cursor movements that guides them for selection of text. Tell them about the cursor movements, and how Undo and Redo is used.

Give a practical demo of how text is selected consecutively, non-consecutively and how to select a vertical block. Also show them how to copy, paste, find and replace a text.

Practically show how can a cursor jump to a particular page number and how Non-Printing Characters are used in text.

Show them how Automatic Spell Check works and how a selected paragraph can be spell checked. Then finally show the execution of how thesaurus is used for synonyms and antonyms.

Number of Periods	
Theory	Practical
2	2

Let the students try out the Lab assignment on page 263.

Extension

Ask the students some oral questions based on this session.

- Q. What is the role of Shift+ Home/End in LibreOffice Writer?
- Q. Which key combination help you select entire document?
- Q. Which key helps us to get into the mode for selecting Non-Consecutive Text?
- Q. How to enter in Block selection mode?
- Q. What does Ctrl+G do?
- Q. What are Non-Printing characters?
- Q. What is the difference between Synonyms and Thesaurus options?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 265 and 266.

3 Apply Formatting Features

Teaching Objectives

Students will learn about

- ✦ Page Style Dialog Box
- ✦ Formatting a Document
- ✦ Paragraph Formatting
- ✦ Page Formatting
- ✦ Inserting Graphics like image, special characters, shapes and formatting them

Teaching Plan

Number of Periods	
Theory	Practical
2	3

Introduce the chapter by telling the relevance of formatting for a document. Show to the students how page formatting dialog box helps in formatting and managing page layout using its different tabs.

Now start with the practical display of formatting a document show the following one by one:

1. Changing Font
2. Changing Font Effects
3. Changing Text Case

4. Superscript and Subscript
5. Using Character Highlighting
6. Clone Formatting
7. Removing Manual Formatting

Practically show how following effects can affect a specific paragraph in a document:

1. Indenting Paragraphs
2. Modify Line Spacing
3. Modify Paragraph Spacing
4. Aligning Paragraphs
5. Using Background Colour
6. Assigning Border to a Paragraph
7. Using Bullets and Numbering

Practically show how following effects can help in formatting an entire page:

1. Setting up Basic Page Layout using Styles
2. Changing the Orientation of the Page
3. Margin
4. Inserting a Page Break
5. Dividing the Document Content into Columns
6. Assigning Border to Page
7. Adding Backgrounds to the Page
8. Creating Header/Footer
9. Adding Page Number

Show the practical execution of different actions for inserting images and graphics in a document:

1. Inserting Image from the Computer
2. Inserting Image from the Gallery
3. Inserting Special Characters
4. Inserting Shapes
5. Formatting the Shape or Image

Extension

Ask the students some oral questions based on this session.

- Q. Name any 4 tabs of Page Style dialog box.
- Q. Under which menu we find Clear direct Formatting?

- Q. Explain leading and fixed line spacing options.
- Q. What is the role of Toggle Unordered List button?
- Q. What is the difference between gradient and Pattern?
- Q. What is header and footer?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 297 and 298.

4 Create and Work with Tables

Teaching Objectives

Students will learn about

- ✦ Creating and Managing Table

Number of Periods	
Theory	Practical
2	3

Teaching Plan

Introduce the chapter to the students by telling them the importance of Tables for presenting data. Then show the execution of the following step by step on a computer system in your lab.

1. How to create a Table
2. Entering Data in a Table
3. Inserting Rows and Columns
4. Deleting Rows and Columns
5. Splitting a Table
6. Merging Tables
7. Copying a Table
8. Moving a Table
9. Deleting a Table

Extension

Ask the students some oral questions based on this session.

- Q. What key combination moves one cell Left in a LibreOffice Calc Table?
- Q. Can we split a table column wise and row wise both?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 309 and 310.

5

Use Print Options

Teaching Objectives

Students will learn about

- ✦ Printing Options in Word Processor

Number of Periods	
Theory	Practical
1	1

Teaching Plan

To begin with the chapter, explain the students why do we need hard copy of the documents. Then discuss the print preview option and how is it helpful.

Extension

Ask the students some oral questions based on this session.

- Q. Why is printing essential?
- Q. What is Print Preview?
- Q. What are different printing options?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 314 and 315.

6

Understand and Apply Mail Merge

Teaching Objectives

Students will learn about

- ✦ Mail Merge in general
- ✦ Creating the Data Source for Mail Merge
- ✦ Edit Individual Document
- ✦ Save Merged Documents
- ✦ Print Merged Documents
- ✦ Send Email Messages

Number of Periods	
Theory	Practical
3	4

Teaching Plan

Introduce to the students what a Mail Merge is? Then create a main document for practical execution of mail-merge. Then show them how to create data source with the following steps:

1. Select Starting Document
2. Select Document Type
3. Insert Address Block
4. Create Salutation
5. Adjust Layout

Tell the students how to change individual document for personalized effects. Then show them how to save merged documents.

Show the practical execution of printing merged documents and sending Email to the different recipients.

Extension

Ask the students some oral questions based on this session.

- Q. What is Mail Merge?
- Q. What is Main document?
- Q. What are the five steps of Mail Merge Wizard?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 327 and 328.

Unit 4: ELECTRONIC SPREADSHEET

1 Create a Spreadsheet

Teaching Objectives

Students will learn about

- ✦ Spreadsheet Applications
- ✦ Features of LibreOffice Calc Spreadsheet
- ✦ Parts of LibreOffice Calc Window
- ✦ Range of Cell
- ✦ Creating a Spreadsheet

- ✦ Moving in a Sheet
- ✦ Working with Spreadsheet and Navigation in it
- ✦ Saving Opening and Printing a Spreadsheet

Number of Periods	
Theory	Practical
2	2

Teaching Plan

Introduce the spreadsheet software to the students with the general advantages that it brings then start discussing the LibreOffice Calc with its features. Practically show the students how to work on LibreOffice Calc and introduce the following parts and their functions one by one:

1. Title Bar
2. Menu Bar
3. Toolbars - Standard Toolbar, Formatting Toolbar
4. Formula Bar
5. Spreadsheet and Sheet
6. Rows
7. Columns
8. Cells
9. Active Cell
10. Cell Address
11. Sidebar
12. Status Bar
13. Sheet Tab
14. Horizontal and Vertical Scroll Bar
15. Control Buttons

Enhance their knowledge by telling them about range of cells (Vertical, Horizontal and Mixed). Then show them how to create a spreadsheet and how to move cursor in it. Tell them how to add, delete, move, hide/Unhide a sheet practically. Show the working of navigation feature, finally save the worksheet and show how to open and print a saved worksheet.

Extension

Ask the students some oral questions based on this session.

- Q. Name some general applications of spreadsheet software.
- Q. What are the features of Calc spreadsheet?
- Q. Name two toolbars of LibreOffice Calc?

Q. What are three types of range of cells?

Q. Which feature of Calc helps the cursor be placed anywhere in the sheet?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 344 and 345.

2

Applying Formula and Functions in Spreadsheet

Teaching Objectives

Students will learn about

- ✦ Different Types of Data
- ✦ Entering Data in Sheet
- ✦ Using Formulas
- ✦ Editing Contents in a Spreadsheet
- ✦ Mathematical Operator
- ✦ Functions
- ✦ Entering Functions in a Cell
- ✦ Common Errors

Teaching Plan

Number of Periods	
Theory	Practical
2	3

Begin the chapter by telling the students about different types of data that can be entered in a spreadsheet and how to enter data in a spreadsheet. Introduce to the students how formula can be used with cell address or cell names. Then practically show the following step by step:

1. Modifying the Cell Content
2. Inserting Cells
3. Deleting Cells
4. Cutting/Copying the contents Inserting Rows and Columns
5. Deleting Rows and Columns
6. Undo and Redo

Discuss with the students how mathematical operators work in LibreOffice Calc. Introduce Calc functions and discuss the following types of functions with the students:

1. Mathematical Functions

2. Date and Time Functions
3. Statistical Functions
4. Logical Functions

Tell the students how to enter a function in a cell. Finish it up with common errors that may occur.

Extension

Ask the students some oral questions based on this session.

- Q. Name 4 data types that can be used in LibreOffice Calc.
- Q. What is a Formula?
- Q. What is a Function?
- Q. Name two Mathematical and Statistical Functions.
- Q. What does #Num! error mean?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 360 and 361.

3

Format Data in the Spreadsheet

Teaching Objectives

Students will learn about

- ✦ Formatting the Sheet
- ✦ Format Cell
- ✦ Auto Fill

Teaching Plan

Begin explaining the chapter by showing how to use Format Cells dialog box then show the practical executing of the following:

1. Changing Font
2. Formatting a Range of Cells with Decimal Places
3. Formatting a Range of Cells to be seen as Labels
4. Formatting of a Cell Range as Scientific
5. Formatting a Range of Cells to Display Date

Number of Periods	
Theory	Practical
2	3

6. Formatting a Range of Cells to Display Times
7. Formatting Alignment of a Cell Range

Then introduce students to the Auto Fill feature under following heads:

1. Copying a Formula
2. Using the Fill Handle
3. Custom List

Extension

Ask the students some oral questions based on this session.

- Q. What is the use of Format Cells dialog box?
- Q. Under which list do we have options like Boolean Value, Scientific and Currency?
- Q. What is the difference between Center and Middle alignment?
- Q. What is Autofill?
- Q. What is Custom List?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 360 and 361.

4

Understanding and Apply Referencing

Teaching Objectives

Students will learn about

- ✦ Cell Referencing and its Types

Teaching Plan

Start the explanation with the introduction and purpose of referencing. Then one by one explain relative referencing, absolute referencing and mixed referencing with practical examples.

Extension

Ask the students some oral questions based on this session.

- Q. What is referencing in LibreOffice Calc?
- Q. What is the difference between relative and absolute referencing?

Number of Periods	
Theory	Practical
2	3

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 379.

5

Create and Insert Different Types of Charts in a Spreadsheet

Teaching Objectives

Students will learn about

- ✦ Charts and Graphs- Advantages, Types and Components
- ✦ Making a Chart

Teaching Plan

Number of Periods	
Theory	Practical
2	3

Introduce to the students some additional features that help to represent information in the form of charts and graphs. Discuss the advantages. Tell the students its types as follows:

1. Line Chart
2. Column Chart
3. Bar Chart
4. Pie Chart
5. X-Y Chart
6. Area Chart

Introduce all the components of charts.

Tell them how to make a chart and show with a practical example.

Extension

Ask the students some oral questions based on this session.

- Q. What are charts and what are their advantages?
- Q. Differentiate between Column and Bar chart?
- Q. How pie chart and area chart are similar?
- Q. What is a legend?
- Q. What is Chart Wizard?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 386 and 387.

1

Understand Features of an Effective Presentation

Teaching Objectives

Students will learn about

- ★ Concept, Elements and Characteristics of Presentation

Number of Periods	
Theory	Practical
3	2

Teaching Plan

As You begin the chapter, tell your students how demonstration of a concept will make the communication effective. Tell your students how presentations on a computer add on to the understanding of the listeners. Then tell them about different presentation software.

Discuss with the students what are the key elements of a presentation and the possible areas where a presentation is used.

Explain why good presentation is necessary and how can you make your presentation engaging and clear.

Extension

Ask the students some oral questions based on this session.

- Q. Why do we need presentations?
- Q. Name any two commonly used software for making computer presentations.
- Q. Tell any four characteristics of a good presentation.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 391.

2

Create a Presentation

Teaching Objectives

Students will learn about

- ★ LibreOffice Impress and its Components
- ★ Creating a Presentation Using Template
- ★ Creating a Slide from Scratch
- ★ Saving and Running a Slide Show

- ✦ Exporting a Presentation
- ✦ Closing a Presentation and LibreOffice Impress
- ✦ Opening an Existing Presentation
- ✦ Using Help

Number of Periods	
Theory	Practical
2	3

Teaching Plan

Begin the chapter by introducing the features of LibreOffice Impress and show to the students how to start Impress, then tell about each of the following component.

1. Menu and Title Bar
2. Standard Toolbar
3. Presentation Toolbar
4. Drawing Toolbar
5. Horizontal and Vertical Scrollbar
6. Window Control Buttons
7. Slides Pane
8. Workspace
9. Insertion Point
10. Sidebar and Status Bar

Show the practical execution of creating a presentation from template and from scratch that includes selecting a layout, adding Text etc. Then teach the students about different types of saving formats and running a Slide Show.

Show to the students how exporting a presentation is helpful. Finally tell them how to close and open a presentation for the students to understand how presentation can be reassessed.

Extension

Ask the students some oral questions based on this session.

- Q. Tell any two important features of Impress.
- Q. What are the four buttons of Presentation Toolbar?
- Q. What is Slides Pane?
- Q. Why do we save presentations in different formats?
- Q. Tell any two ways to run a Slide Show.
- Q. Why do we export a presentation?
- Q. Why is Help used?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 412 and 413.

3 Work with Slides

Teaching Objectives

Students will learn about

- ✦ Inserting a New or a Duplicate Slide
- ✦ Copying and Moving Slides
- ✦ Renaming Slides
- ✦ Deleting Slides
- ✦ Copying, Moving and Deleting Content of Slides
- ✦ Undoing and Returning the Changes
- ✦ View a Presentation
- ✦ Workspace Views

Teaching Plan

Number of Periods	
Theory	Practical
3	4

Begin the chapter by telling to the students how a new slide is inserted in the presentation and how a slide is duplicated. Tell your students how to copy, move, rename, delete slide with practical execution. Following it show how to Copy, Move and delete the content of Slides.

Discuss how to undo a change. Show how a presentation is viewed, also tell how the size of the view is controlled. Show to the students the following view modes of the of the workspace:

1. Normal
2. Outline
3. Notes
4. Slide Sorter

Discuss with the students what is Master Slide, Master Notes, Master Handouts.

Extension

Ask the students some oral questions based on this session.

- Q. What is the difference between inserting a new slide and inserting a duplicate slide?
- Q. What is the short cut key for undo and redo?

Q. What is the difference between normal view and Outline View?

Q. What are Master Notes?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 360 and 361.

4 Format Text and Apply Animations

Teaching Objectives

Students will learn about

- ✦ Using Format Menu, Text Formatting Toolbar, Properties Deck and Keyboard Shortcut
- ✦ Aligning Text- Bullets and Numbering, Line Spacing and Paragraph Spacing
- ✦ Adding and Removing Custom Animation

Number of Periods	
Theory	Practical
3	3

Teaching Plan

As you begin with the chapter practically introduce to the students, how to use format menu. Introduce different options available in the text formatting toolbar. Show the usage of properties deck and discuss the keyboard shortcuts like Ctrl+B, Ctrl+R etc.

Introduce aligning the text and stepwise show how is it done. Show the usage of bullets and numbering. Display how line and paragraph spacing is adjusted.

For animations discuss the different types of animation effects that are possible, thereafter show the addition and removal of custom animation with an example.

Extension

Ask the students some oral questions based on this session.

Q. Name any four options in the formatting toolbar.

Q. What is the use of Ctrl+Shift+P?

Q. What is the difference between bullets and numbering?

Q. What are the different types of animation effects?

Q. What is custom animation?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 437 and 438.

5 Create and Use Tables

Teaching Objectives

Students will learn about

- ✦ Inserting Tables in a presentation
- ✦ Entering and Editing Data in a table
- ✦ Selecting Cell, Row/Column and Table
- ✦ Adjusting Column width and Row Height
- ✦ Changing Table Border and Background
- ✦ Deleting a Table

Teaching Plan

Number of Periods	
Theory	Practical
3	4

Introduce to the students how to insert tables in presentation, entering and editing data in the table and how to select cell, row, column and entire table. Show all of these step by step and also display the alternative paths to execute the same.

Now tell the students step by step how to adjust columns width and row height, also tell them about table border and background. At last practically execute the deletion of the table.

Now let the students try out the Lab Assignment N Activity on page 446.

Extension

Ask the students some oral questions based on this session.

Q. How do Tab and Shift+Tab work in the table?

Q. How do we delete a table? Tell 4 methods.

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 448 and 449.

Teaching Objectives

Students will learn about

- ✦ Inserting Image in a Presentation
- ✦ Formatting Image
- ✦ Drawing Graphics Objects
- ✦ Grouping and Ungrouping Objects

Number of Periods	
Theory	Practical
3	4

Teaching Plan

Discuss the importance of graphics in a presentation and then show the insertion of image from the file and from the gallery step by step. Thereafter show the formatting of images by moving image, resizing image and rotating the image step by step and then show the formatting toolbar and image section in the properties deck.

Teach the students step by step how to draw a line and how to draw a single and multiple shapes, following it teach them how to group and ungroup multiple objects with a practical example.

Let the students try out the activity on page no 459.

Extension

Ask the students some oral questions based on this session.

- Q. Why do we include graphics in a presentation?
- Q. Name the two sources for inserting the image in a presentation.
- Q. What is the difference between resizing and rotating images?
- Q. What do you understand by grouping objects how is it helpful?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the pages 461 and 462.

7 Work with Slide Master

Teaching Objectives

Students will learn about

- ★ Slide Master
- ★ Creating the Slide Master
- ★ Slide Transition

Number of Periods	
Theory	Practical
2	3

Teaching Plan

Introduce students to the importance and necessity of slide master in LibreOffice Impress. Practically show how a Slide Master is created and use few features to create a slide master step by step.

Tell the students about Slide Transition, the effects it creates and how is it used following the desired steps.

Extension

Ask the students some oral questions based on this session.

- Q. What is a Slide Master?
- Q. Which menu has the Master Slide option in it?
- Q. Name the sections in which Master Slide is divided?
- Q. What is Slide Transition?

Evaluation

After finishing this session, ask the students to complete the Unsolved Exercise given on the page 468.