

# MICROCOMPUTING PROGRAM

MAY 1996

# **MICROCOMPUTING PROGRAM**

**MAY 1996**

**Direction de la formation générale des adultes**

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La ministre de l'Éducation

Conformément aux dispositions de l'article 461 de la Loi sur l'instruction publique (L.R.Q., c. I-13.3), j'approuve le nouveau programme de *Micro-informatique* à l'éducation des adultes. Ce programme sera d'application obligatoire dans tous les centres d'éducation des adultes à compter du 1<sup>er</sup> juillet 1996.



PAULINE MAROIS

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# INTRODUCTION

## INTRODUCTION

### BACKGROUND

In 1985, the cornerstone of the Microcomputing program as we know it today was laid. In 1986, meetings with the provincial committee on microcomputing resulted in the formulation of a general outline of the program under the name of "Initiation à la technologie." By the end of that year, the program itself was ready. Some changes were necessary but the program of study and the MAX\* version of the individual learning guides for eight of the 21 courses were already completed. In 1987, the MAX versions were revised, IBM versions for the 21 courses were written, and 26 learning guides were distributed throughout Québec's adult education services.

Of course, no one could have anticipated the new capabilities offered by the most recent versions of the software programs in any of the programs of study. The challenges facing us today are no different from those we faced in the eighties. There have been numerous improvements in software design and, nowadays, it is no longer necessary to learn as many commands as before.

Some school boards have been offering computer courses to adults in general education for over 10 years, while others will begin doing so only this year. As it stands now, school boards can no longer obtain the versions of the software recommended for use with the learning guides of the existing program.

With more and more school boards offering these courses every year, it became evident that the program and the learning guides were due for a thorough update. As a result, this new program was developed to bring the study of microcomputing in line with the many technological changes that have occurred in the field, and to meet the various needs of adults.

\* Max is the name of the technology used throughout the school system in the eighties.

## **STUDY OF NEEDS**

In order to define the teaching and learning objectives of the Microcomputing program, we consulted members of the provincial committee on microcomputing as well as teachers in all the subject areas of adult education. This consultation enabled us to establish students' needs, draw up a list of the different programs and adapt these programs to adults' needs in their progression through school.

## **DETERMINING THE NEEDS OF ADULTS**

The needs of adults are the same today as those established during the development of the original program. The only difference, of course, is the fact that microcomputers now play an even greater role in North American society.

- Adults perceive computing science as a key to a better future.
- Adults today are still looking for practical training. Some of them have a personal microcomputer at home and want to learn to use it effectively. They also want to know about the kinds of software that can serve their needs most easily and efficiently.
- Adults are looking to acquire new knowledge that will help them save time and effort by applying this knowledge to their learning in other subjects.
- Adults will have to use the microcomputer for educational purposes, both as a work tool and as a focus of study at every level, from literacy training to Secondary V.
- Adults recognize the importance of acquiring basic microcomputing skills both for meeting the requirements of the job market and for use in daily life.

## GUIDING PRINCIPLES

- ***To introduce adults to the use of microcomputers for personal use.***  
Microcomputing is becoming a growing part of the adult's life. To meet the adult's needs, the program will focus on the general concepts of different applications with the aim of adapting the courses to the constant changes in the field of computing.
- ***To use a pragmatic approach***  
The approach used will be adapted to individual styles of learning to take account of the adult's immediate needs. The means that will be used to meet the adult's needs include a project-centred approach, individualized learning, group work and workshops. Rather than focusing on performance to develop competencies, which falls under the domain of vocational education, the emphasis of this program is on gaining knowledge of the computer itself and then using it as a tool.
- ***To allow adults to choose courses that correspond to their areas of interest, their level of knowledge and their level of schooling.***
- ***To approach the course content from a perspective that extends beyond the adult's immediate situation.***  
The training provided should prepare adults for self-directed learning and for creating links between what they have learned and the new capabilities that will become available within the same field of application.
- ***To help adults become more open-minded and more flexible in their choice of learning tools and methods.***
- ***To meet the needs of general education by using a more global approach.***

## ORIENTATIONS

- The objectives of the Microcomputing program fall into three main categories:
  - introduction to the microcomputer, with a focus on facilitating the use of the computer and its peripherals for both personal and educational purposes;
  - introduction to an integrated software package for immediate use in general education programs and in daily life;
  - introduction to a microcomputing application with a view to exploring its capabilities.
  
- The courses must be open to all adults in general education, regardless of their level of schooling.
- The program is designed on the basis of skills to be acquired.
- The program is designed around the two most widely used technologies: IBM and Macintosh, and the most widely used software tools.
- When choosing software, it is necessary to take into account its user-friendliness, utility, cost and the availability of instructional materials.

## **COURSES IN THE MICROCOMPUTING PROGRAM**

## COURSES IN THE MICROCOMPUTING PROGRAM

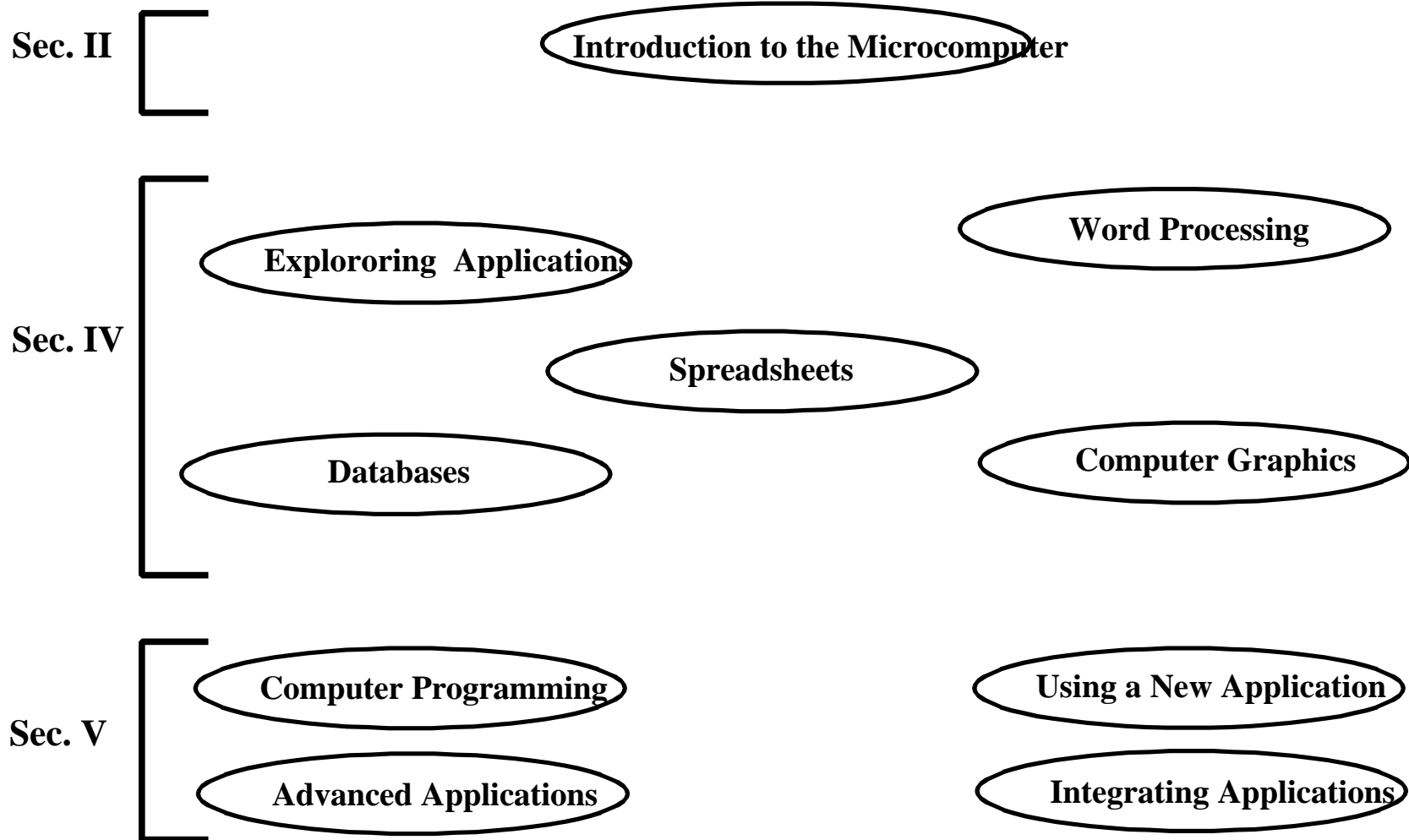
The grid used to develop the courses helps to decompartmentalize learning so as to better fit the adults' different needs and areas of interest. Also, it makes it possible to adjust to individual rates of learning.

Adults can adopt their own learning strategies by using either a conventional approach or choosing a learning project that incorporates one or several of the courses suggested in the program. Adults who choose the learning project approach must be sure to cover all the objectives of the course(s) selected.

Furthermore, the use of an integrated software package that offers adults a constant environment encourages them to explore different fields in microcomputing. This also produces a synergic effect during the learning process, which is very stimulating for the adult learner.

The Microcomputer program designed for adults in general education consists of ten main themes related to various fields in computing science.

# Table of themes



The different themes are subdivided into 13 courses. This decompartmentalizing approach allows adults to choose the courses that best fit their needs and areas of interest.

### GENERAL TABLE

TITLE	LEVEL	NO. OF CREDITS	NO. OF HOURS
Introduction to the Microcomputer and Its Peripherals	Sec. II	1	25
Exploring Microcomputing Applications	Sec. IV*	3	75
Word Processing I Word Processing II	Sec. IV*	1 1	25 25
Spreadsheets I Spreadsheets II	Sec. IV*	1 1	25 25
Consulting Databases Creating a Database	Sec. IV*	1 2	25 50
Computer Graphics	Sec. IV*	2	50
Computer Programming	Sec. V	2	50
Using a New Microcomputing Application	Sec. V	2	50
Advanced Microcomputing Applications	Sec. V	2	50
Integrating Different Microcomputing Applications	Sec. V	2	50

\* As long as rules applicable to the transitional certification system remain in force, Secondary IV courses will be associated with those of Secondary V in the SAGE system.

## LINKS BETWEEN THE COURSES

### Secondary II:

- The *Introduction to the Microcomputer and Its Peripherals* course is recommended for anyone looking for basic training in microcomputers. It provides an opportunity to learn the terminology used in the field and to acquire the basic skills required for using a microcomputer.

### Secondary IV:

- Adults must accumulate a total of 6 credits from among the Secondary IV microcomputing courses in order to meet the "science" requirement for certification, as stipulated in the Basic school regulation respecting educational services for adults in general education.
- Any combination of 6 credits for Secondary IV microcomputing courses qualifies adults for general training in microcomputing.
- The *Exploring Microcomputing Applications* course should be strongly recommended to all those who have not as yet determined their needs with regard to specific fields in microcomputing applications. This course requires the use of an integrated applications software package.
- The *Word Processing I* course is a prerequisite for *Word Processing II*.
- The *Spreadsheets I* course is a prerequisite for *Spreadsheets II*.
- The *Consulting Databases* course is not a prerequisite for *Creating Databases*.
- The *Computer Graphics* course requires the ability to use a mouse.

Secondary V:

- The four Secondary V microcomputing courses are optional.
- Although there are no admission requirements for these courses, learning the fundamentals of microcomputing will prove to be a significant advantage in achieving the different objectives of these courses.

## LINKS BETWEEN THE OBJECTIVES

- The sequence of terminal objectives for any given course may be changed to complement the selected instructional approach and the different tools used.
- The intermediate objectives suggest a process for attaining the different terminal objectives for a given course.
- The suggested related content gives an overview of the knowledge to be acquired in the specific field of a given application.

## **COURSES AND OBJECTIVES**

## TABLE OF COURSES AND OBJECTIVES OF THE PROGRAM

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Introduction to the Microcomputer and Its Peripherals	<p><u>ORIENTATION OF THE COURSE:</u>            The <i>Introduction to the Microcomputer and Its Peripherals</i> course focuses on the use of the microcomputer's different components and its peripherals. The course also aims to provide adults with the basic knowledge that will help them determine their needs with regard to acquiring or using computer equipment for personal use. This course introduces adults to the procedures for loading and running an application. Adults will be able to apply the skills acquired in this course throughout their studies.</p> <p><u>GENERAL OBJECTIVE:</u>            To encourage adults to acquire the basic knowledge required for choosing a microcomputer and to develop the skills necessary for using the different educational applications of the computer.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To use the procedures for starting up and checking a microcomputer.</li> <li>2) To use a keyboard and a mouse.</li> <li>3) Using the menus of an operating system, to format a diskette, to copy a diskette, to manage files and to start up an application.</li> <li>4) To recognize the main components and the different peripherals of a microcomputer by comparing specification sheets.</li> </ol>	<p style="text-align: center;">2</p> <p style="text-align: center;">4</p> <p style="text-align: center;">2</p> <p style="text-align: center;">4</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Exploring Microcomputing Applications	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Exploring Microcomputer Applications</i> course focuses on the different capabilities offered by microcomputing. It gives an overview of the role and capabilities of an operating system and of a word-processing, a computer graphics, a spreadsheet and a database program. In identifying the different capabilities offered by an integrated environment, this course also gives a general outline of how to integrate different applications. Using an integrated software package enables adults to become familiar with the environment in less time, thus encouraging them to explore different microcomputer applications. The objectives of this course cannot be attained without the use of integrated applications software.</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire a basic knowledge of an operating system, a word-processing program, a computer drawing program, a spreadsheet program, a database program and different ways of integrating the applications of an integrated software package.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To use the main capabilities of an operating system.</li> <li>2) To distinguish the various elements of an integrated software package.</li> <li>3) To produce a short text using the word-processing program of an integrated software package.</li> <li>4) To incorporate a modified image into a text.</li> <li>5) Using given files, to use basic commands for calculating, printing and displaying the spreadsheet application of an integrated software package.</li> <li>6) Using given files, to use the main commands for creating, calculating and sorting the database applications of an integrated software package.</li> <li>7) To carry out an assignment using the capabilities for integrating different applications.</li> </ol>	<p>3</p> <p>5</p> <p>3</p> <p>3</p> <p>4</p> <p>3</p> <p>2</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Word Processing I	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Word Processing I</i> course is designed to help adults acquire the basic knowledge related to word processing. It enables them to use the basic functions for producing a text on a microcomputer. After this course, adults will become sufficiently autonomous to be able to use word processing as a tool in all their courses.</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire the minimum skills required for using a word-processing program.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To use the basic commands for loading a word-processing program, managing files and printing a document.</li> <li>2) To produce a short printed text.</li> <li>3) To modify a given text.</li> <li>4) To reproduce a one-page text using various character formatting functions.</li> <li>5) To change the presentation of a text using paragraph formatting functions such as line spacing, paragraph alignment, paragraph indent and paragraph border.</li> </ol>	<p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">4</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Word Processing II	<p><u>ORIENTATION OF THE COURSE:</u> The <i>Word Processing II</i> course follows <i>Word Processing I</i>. It is designed to broaden the adults' understanding of the concepts related to text presentation and text editing.</p> <p><u>GENERAL OBJECTIVE:</u> To acquire the skills required for using the main functions of a word-processing program.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To change a text using electronic dictionaries and the search and replace functions.</li> <li>2) To incorporate images into a given text.</li> <li>3) To produce a printed version of a text consisting of several numbered pages with margins, headers and footers, taking into account the paper size and page orientation for printing.</li> <li>4) To produce a text containing a table and columns.</li> </ol>	<p style="text-align: right;">3</p> <p style="text-align: right;">2</p> <p style="text-align: right;">4</p> <p style="text-align: right;">4</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Spreadsheets I	<p><u>ORIENTATION OF THE COURSE:</u> The <i>Spreadsheets I</i> course helps adults acquire the basic knowledge related to using a spreadsheet program. It enables them to use the basic functions required for producing a spreadsheet on a microcomputer. At the end of this course, adults will become sufficiently autonomous to be able to use a spreadsheet program as a work tool in all their courses.</p> <p><u>GENERAL OBJECTIVE:</u> To acquire the minimum skills required for using a spreadsheet program.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To use the basic commands for loading a spreadsheet program, managing files and printing a document.</li> <li>2) To produce a printed version of a spreadsheet comprising text and numbers.</li> <li>3) To complete a spreadsheet using the mathematical formulas and statistical functions of a spreadsheet program.</li> <li>4) To use the main functions for formatting a spreadsheet.</li> </ol>	<p style="text-align: right;">3</p> <p style="text-align: right;">5</p> <p style="text-align: right;">2</p> <p style="text-align: right;">2</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Spreadsheets II	<p><u>ORIENTATION OF THE COURSE:</u> The <i>Spreadsheets II</i> course follows <i>Spreadsheets I</i> and is designed to enable adults to further their knowledge of the functions of a spreadsheet program.</p> <p><u>GENERAL OBJECTIVE:</u> To acquire the skills required for using the main functions of a spreadsheet program.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To change a spreadsheet using the commands for moving the cells, for inserting and deleting rows and columns, and for editing the contents of the cells.</li> <li>2) To arrange the contents of a spreadsheet.</li> <li>3) To prepare a spreadsheet model using the copy commands of a spreadsheet program.</li> <li>4) To produce a printed version of a spreadsheet consisting of several numbered pages with margins, headers and footers, taking into account the paper size and page orientation for printing.</li> <li>5) To produce a printed graph based on a spreadsheet, using the main graphics commands of a spreadsheet program.</li> </ol>	<p style="text-align: center;">4</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">4</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Consulting Databases	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Consulting Databases</i> course is designed to help adults acquire the basic knowledge related to using a database. It enables adults to use the basic functions for finding, querying and classifying information. In light of the development of new information technologies, this course enables adults to become sufficiently autonomous to be able to use a database as a work tool in all their courses. By using the knowledge acquired in this course, adults will be able to make the kind of links that will enable them to optimally exploit the many database applications available on the information highway and to use the various applications offered by databases available on compact disk (CD-ROM).</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire the minimum skills required for using a database.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To use the basic functions required for loading a database, and for managing and printing files.</li> <li>2) To use the main options for querying and displaying a file in a database.</li> <li>3) To change a database display by using the different options for classifying information.</li> </ol>	<p style="text-align: right;">3</p> <p style="text-align: right;">4</p> <p style="text-align: right;">2</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Creating a Database	<p><u>ORIENTATION OF THE COURSE:</u> The <i>Creating a Database</i> course enables adults to further their knowledge of the different database functions. At the end of this course, adults will be able to use the basic functions required for creating a database.</p> <p><u>GENERAL OBJECTIVE:</u> To acquire the skills required for using the functions of a database.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) Using a database, to produce a file that incorporates text, numbers and mathematical formulas.</li> <li>2) To change a database file by using the commands for inserting and deleting fields and records, and by changing the size and type of fields and the information contained in the records.</li> <li>3) To produce a printed version of a database consisting of several numbered pages with headers and footers.</li> <li>4) To produce a report, using a database.</li> </ol>	<p style="text-align: right;">4</p> <p style="text-align: right;">4</p> <p style="text-align: right;">3</p> <p style="text-align: right;">5</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Computer Graphics	<p><u>ORIENTATION OF THE COURSE:</u> The <i>Computer Graphics</i> course enables adults to acquire the knowledge required for using a computer graphics program. The terminal objectives will be attained through practical exercises.</p> <p><u>GENERAL OBJECTIVE:</u> To acquire the minimum skills required for using a graphics program.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To know the different elements of a graphics program.</li> <li>2) To create a drawing containing simple forms and text.</li> <li>3) To change an image using the main functions of a graphics program.</li> <li>4) To print a graphics assignment, taking into account the paper size and page orientation for printing.</li> </ol>	<p style="text-align: right;">2</p> <p style="text-align: right;">4</p> <p style="text-align: right;">5</p> <p style="text-align: right;">2</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Computer Programming	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Computer Programming</i> course is designed to familiarize adults with the basic concepts related to computer programming. It involves analyzing the configuration of a simple problem in order to divide it into smaller elements, write the sequence of steps to be performed and encode each of the instructions in a programming language.</p> <p>This course helps adults to become autonomous in the use of particular computer programming language by means of problem analysis and by applying the rules of file management.</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire the basic skills required for computer programming and for using a particular computer programming language.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) Using a given program, to establish the relationship between the program instructions and the results obtained on screen.</li> <li>2) To understand the organization and algorithm of a computer program that includes at least one program loop.</li> <li>3) To write a fully operational program designed to solve a given problem.</li> </ol>	<p style="text-align: center;">4</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Using a New Microcomputing Application	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Using a New Microcomputing Application</i> course enables adults to discover a new computing tool that was not dealt with in any of the other courses of the program. Furthermore, it is designed to help them broaden their sphere of knowledge of the numerous capabilities of microcomputing and to become autonomous in their methods of learning.</p> <p>In <i>Using a New Microcomputing Application</i>, adults will be able to trace the latest developments related to microcomputing. The choice of topic may be very varied and will be limited only by the availability of equipment at the different adult education centres. Possible topics include telecommunications, networks, voice and music applications, video and computer graphics, CD-ROMs and computer animation programs. The instructor will follow each step in the adult's learning process and provide support throughout the attainment of the objectives.</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire the skills required for using a new computing tool.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To know the application's main capabilities.</li> <li>2) To use the procedures for loading and starting up the application.</li> <li>3) To carry out an activity using the main functions of the application.</li> </ol>	<p style="text-align: right;">3</p> <p style="text-align: right;">3</p> <p style="text-align: right;">3</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Advanced Microcomputing Applications	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Advanced Microcomputing Applications</i> course offers adults the opportunity to expand their knowledge in a specific application field. The learning activities will be oriented towards furthering and enriching the knowledge and skills they have already acquired. Adults will be expected to identify and integrate the capabilities offered by a specific field of application, and to carry out an activity.</p> <p>Possible topics for the course include using desktop publishing to produce a newsletter for the adult education centre, using advanced commands to develop a computer program and using macro commands to automate a procedure. The instructor will follow each step of the activity and provide support throughout the attainment of the objectives.</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire the skills required for using the advanced functions of a computing application.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To analyze various advanced functions.</li> <li>2) To use the different functions that were identified while carrying out an activity.</li> </ol>	<p style="text-align: right;">4</p> <p style="text-align: right;">3</p>

Title	Orientation, General and Terminal Objectives	Intermediate Objectives
Integrating Different Microcomputing Applications	<p><u>ORIENTATION OF THE COURSE:</u>  The <i>Integrating Different Microcomputing Applications</i> course gives adults the opportunity to use more than one microcomputing application while carrying out an activity. Adults will be required to identify the possibilities for applying the knowledge they acquired in the other courses of the program to the objective of this course.</p> <p>Possible topics for the course include: using word processing for electronic mail; using the graphics capabilities of a spreadsheet program; a word-processing program and a graphics program to produce a class newsletter; or using a spreadsheet and a word-processing program to produce reports for a chemistry course. In addition to giving adults the opportunity to integrate different computing tools, this course encourages interaction between the Microcomputing program and the other general education programs in the adult sector. The instructor will follow each step of the activity and provide support throughout the attainment of the objectives.</p> <p><u>GENERAL OBJECTIVE:</u>  To acquire the skills required for integrating more than one microcomputing application.</p> <p><u>TERMINAL OBJECTIVES:</u></p> <ol style="list-style-type: none"> <li>1) To select the applications.</li> <li>2) To become familiar with the concepts associated with integrating applications.</li> <li>3) To carry out an activity that integrates the selected applications.</li> </ol>	<p style="text-align: right;">3</p> <p style="text-align: right;">3</p> <p style="text-align: right;">3</p>

DETAILED DESCRIPTIONS

**INTRODUCTION TO THE MICROCOMPUTER  
AND ITS PERIPHERALS**

## TITLE: INTRODUCTION TO THE MICROCOMPUTER AND ITS PERIPHERALS

LEVEL: Secondary II

DURATION: 25 hours

NUMBER OF CREDITS: 1 credit

ORIENTATION OF THE COURSE: The *Introduction to the Microcomputer and Its Peripherals* course focuses on the use of the microcomputer's different components and its peripherals. The course also aims to provide adults with the basic knowledge that will help them determine their needs with regard to acquiring or using computer equipment for personal use. This course introduces adults to the procedures for loading and running an application. Adults will be able to apply the skills acquired in this course throughout their studies.

GENERAL OBJECTIVE: To encourage adults to acquire the basic knowledge required for choosing a microcomputer and to develop the skills necessary for using the different educational applications of the computer.

TERMINAL OBJECTIVES:

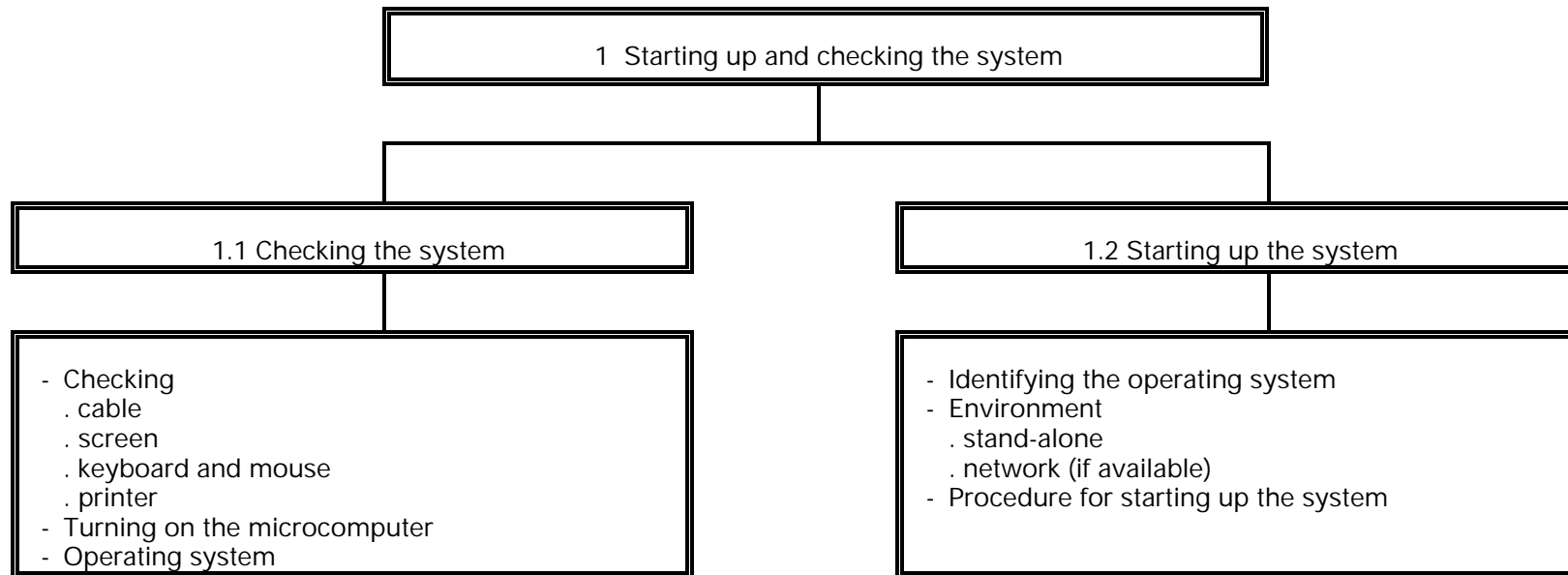
- 1) To use the procedures for starting up and checking a microcomputer.
- 2) To use a keyboard and a mouse.
- 3) Using the menus of an operating system, to format a diskette, to copy a diskette, to manage files and to start up an application.
- 4) To recognize the main components and the different peripherals of a microcomputer by comparing specification sheets.

## TITLE: INTRODUCTION TO THE MICROCOMPUTER AND ITS PERIPHERALS

TERMINAL OBJECTIVE: 1 To use the procedures for starting up and checking a microcomputer.

INTERMEDIATE OBJECTIVES: 1.1 To verify the presence of the various components required for operating a microcomputer.  
1.2 To start up a microcomputer, taking into account the procedures that are specific to the available computing environment.

### RELATED CONTENT

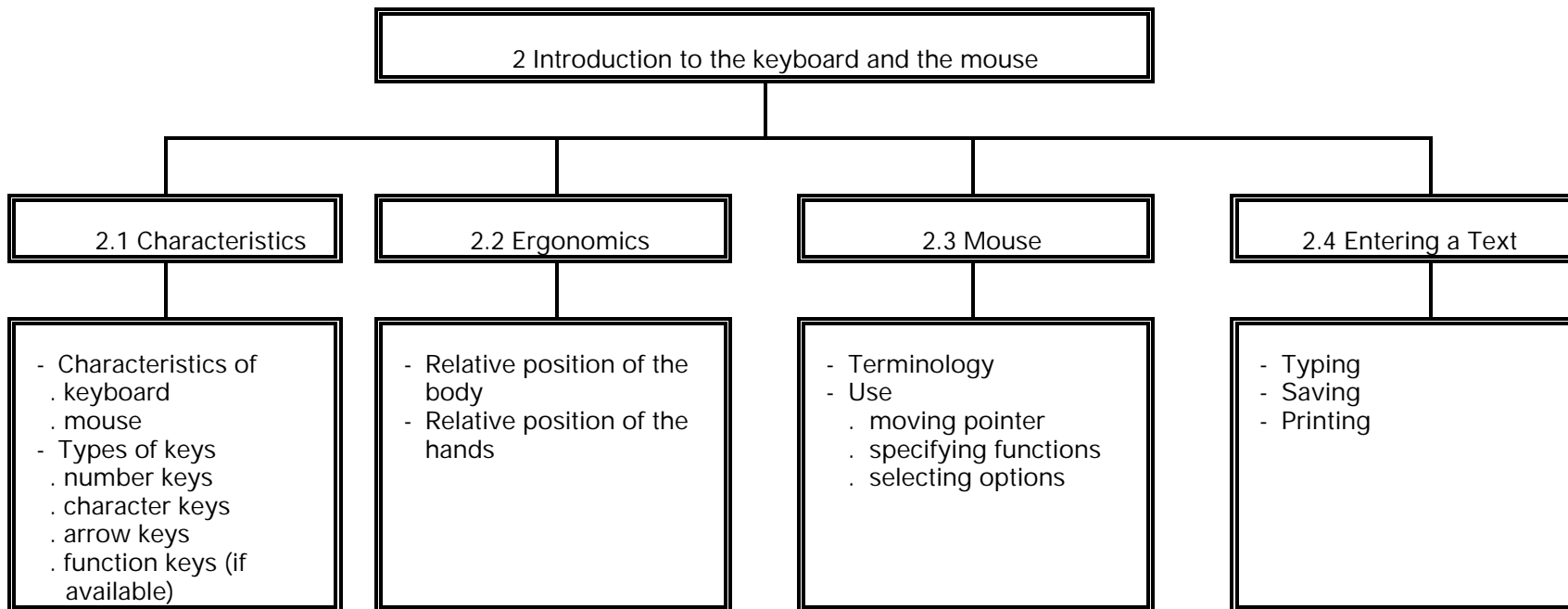


# TITLE: INTRODUCTION TO THE MICROCOMPUTER AND ITS PERIPHERALS

TERMINAL OBJECTIVE: 2 To use a keyboard and a mouse.

INTERMEDIATE OBJECTIVES: 2.1 To determine the main characteristics of a keyboard and a mouse.  
2.2 To determine the proper posture and position of the hands.  
2.3 To use the main mouse functions.  
2.4 To enter a short text.

## RELATED CONTENT

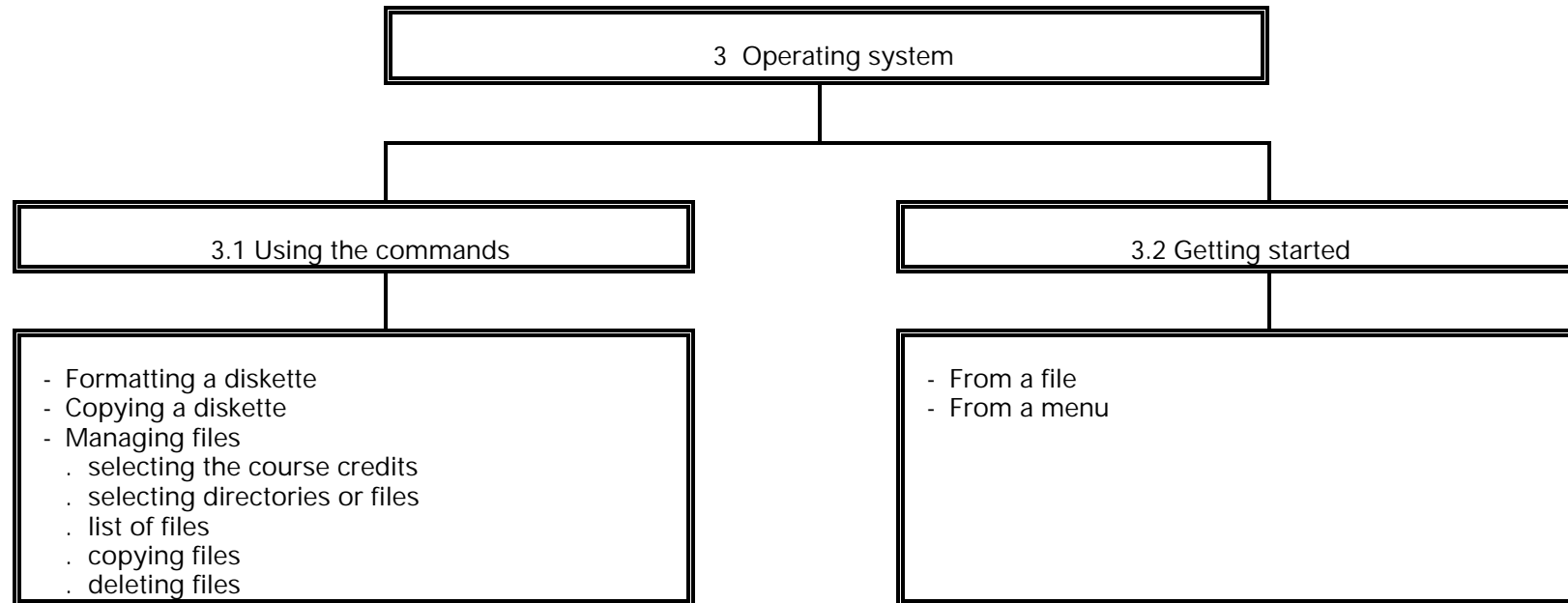


## TITLE: INTRODUCTION TO THE MICROCOMPUTER AND ITS PERIPHERALS

TERMINAL OBJECTIVE: 3 Using the menus of an operating system, to format a diskette, to copy a diskette, to manage files and to start up an application.

INTERMEDIATE OBJECTIVES: 3.1 Using the menus of an operating system, to use the commands for formatting a diskette, displaying a list of files, copying and deleting a file and copying a diskette.  
3.2 To use the appropriate procedures for starting up an application.

### RELATED CONTENT

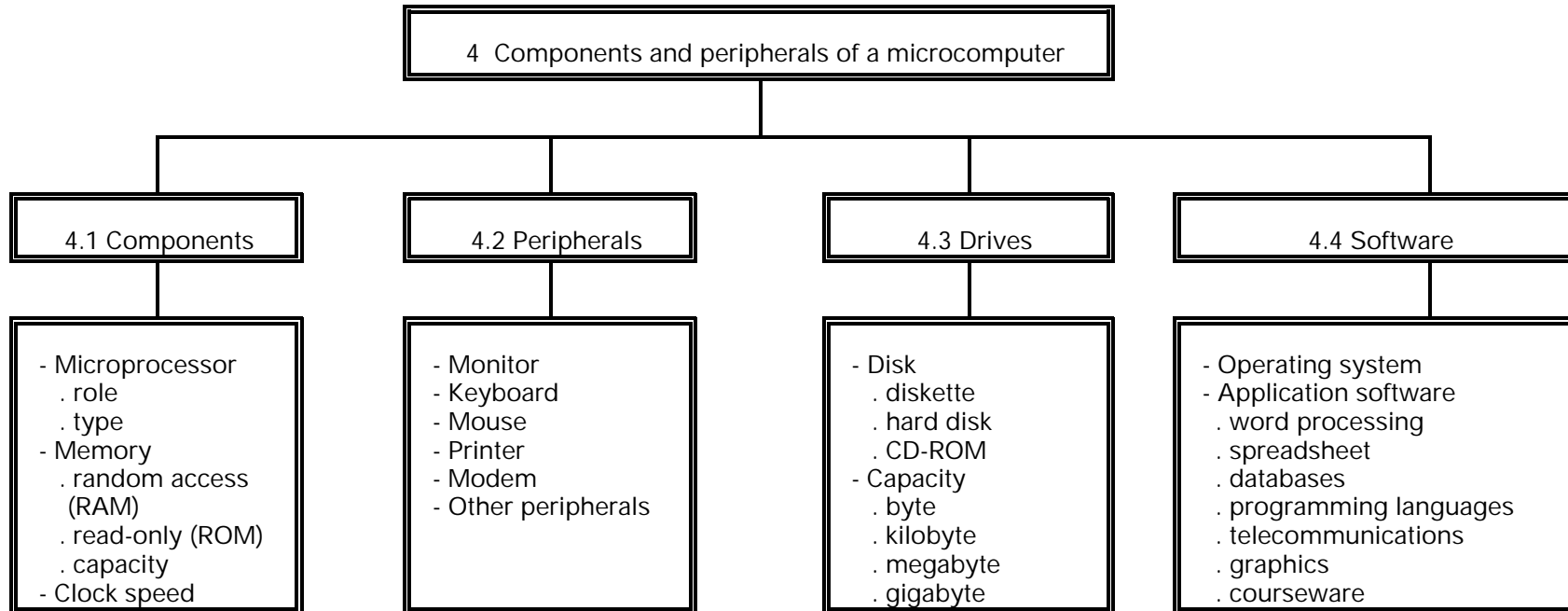


# TITLE: INTRODUCTION TO THE MICROCOMPUTER AND ITS PERIPHERALS

TERMINAL OBJECTIVE: 4 To recognize the main components and the different peripherals of a microcomputer by comparing specification sheets.

- INTERMEDIATE OBJECTIVES:
- 4.1 To associate the appropriate vocabulary to the main components of a microcomputer.
  - 4.2 To identify the different uses of the peripherals.
  - 4.3 To distinguish the different drives and their respective capabilities.
  - 4.4 To distinguish the role of the operating system from that of the application software.

## RELATED CONTENT



**EXPLORING MICROCOMPUTING  
APPLICATIONS**

## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

LEVEL: Secondary IV

DURATION: 75 hours

NUMBER OF CREDITS: 3 credits

ORIENTATION OF THE COURSE: The *Exploring Microcomputer Applications* course focuses on the different capabilities offered by microcomputing. It gives an overview of the role and capabilities of an operating system and of a word-processing, a computer graphics, a spreadsheet and a database program. In identifying the different capabilities offered by an integrated environment, this course also gives a general outline of how to integrate different applications. Using an integrated software package enables adults to become familiar with the operating environment in less time, thus encouraging them to explore different microcomputer applications. The objectives of this course cannot be attained without the use of integrated applications software.

GENERAL OBJECTIVE: To acquire a basic knowledge of an operating system, a word-processing program, a computer drawing program, a spreadsheet program, a database program and different ways of integrating the applications of an integrated software package.

TERMINAL OBJECTIVES:

- 1) To use the main capabilities of an operating system.
- 2) To distinguish the various elements of an integrated software package.
- 3) To produce a short text using the word-processing program of an integrated software package.
- 4) To incorporate a modified graphic into a text.

## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

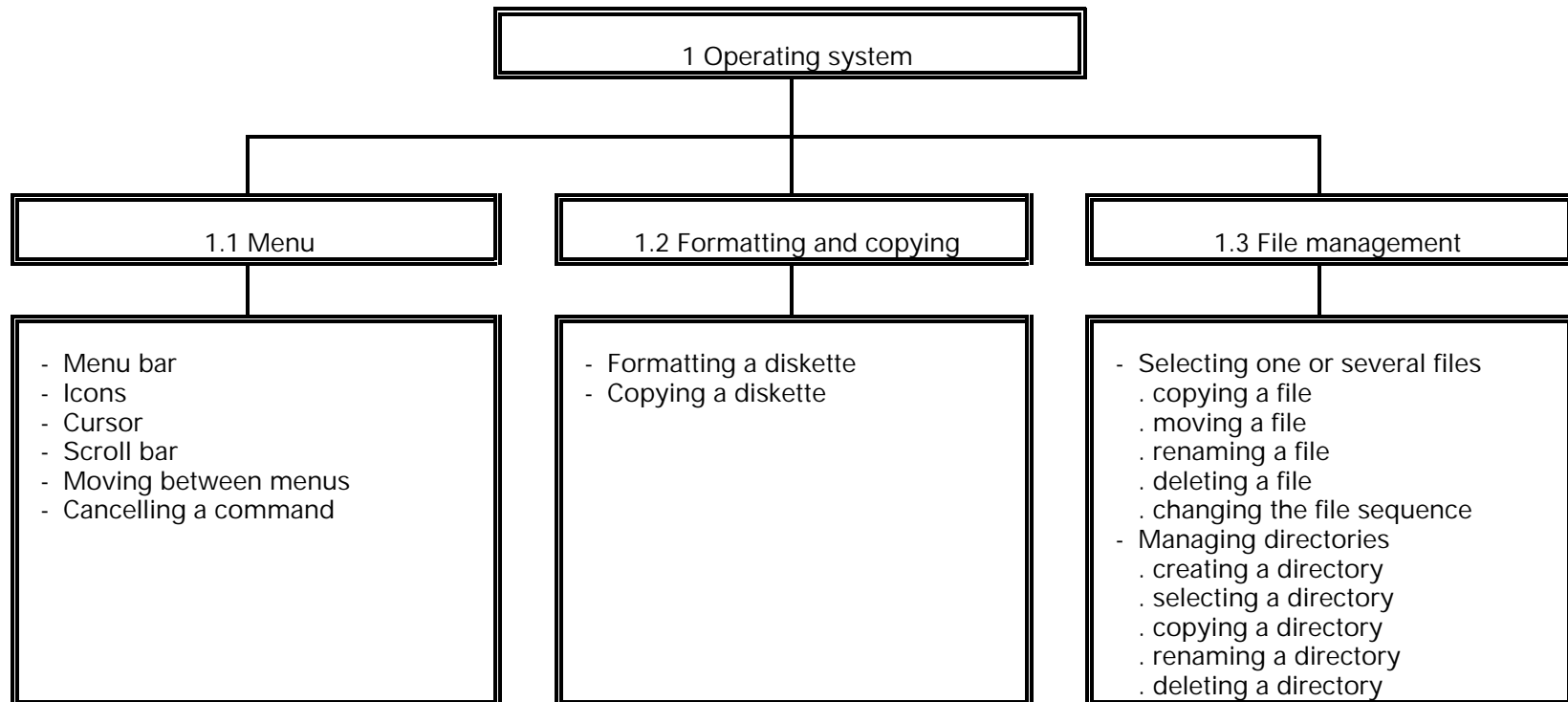
- 5) Using given files, to use basic commands for calculating, printing and displaying the spreadsheet application of an integrated software package.
- 6) Using given files, to use the main commands for creating, calculating and sorting the database applications of an integrated software package.
- 7) To carry out an assignment using the capabilities for integrating different applications.

# TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 1 To use the main capabilities of an operating system.

INTERMEDIATE OBJECTIVES: 1.1 To distinguish the different parts of the main menu of an operating system.  
1.2 To use the different commands for formatting and copying diskettes.  
1.3 To use the different file management commands.

## RELATED CONTENT

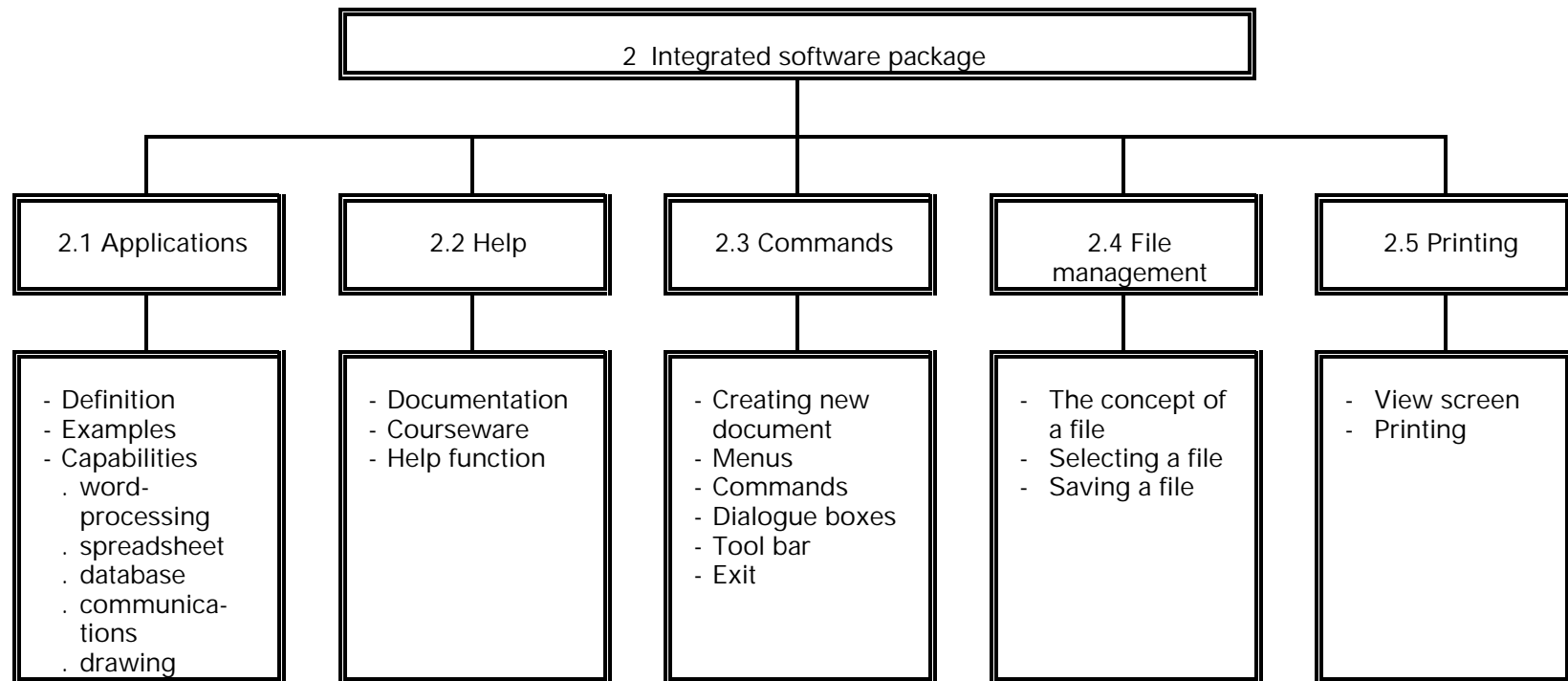


## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 2 To distinguish the various elements of an integrated software package.

INTERMEDIATE OBJECTIVES: 2.1 To describe the different applications.  
2.2 To use the information tools.  
2.3 To recognize the basic commands.  
2.4 To recognize the file management functions.  
2.5 To recognize the view screen and print functions.

### RELATED CONTENT

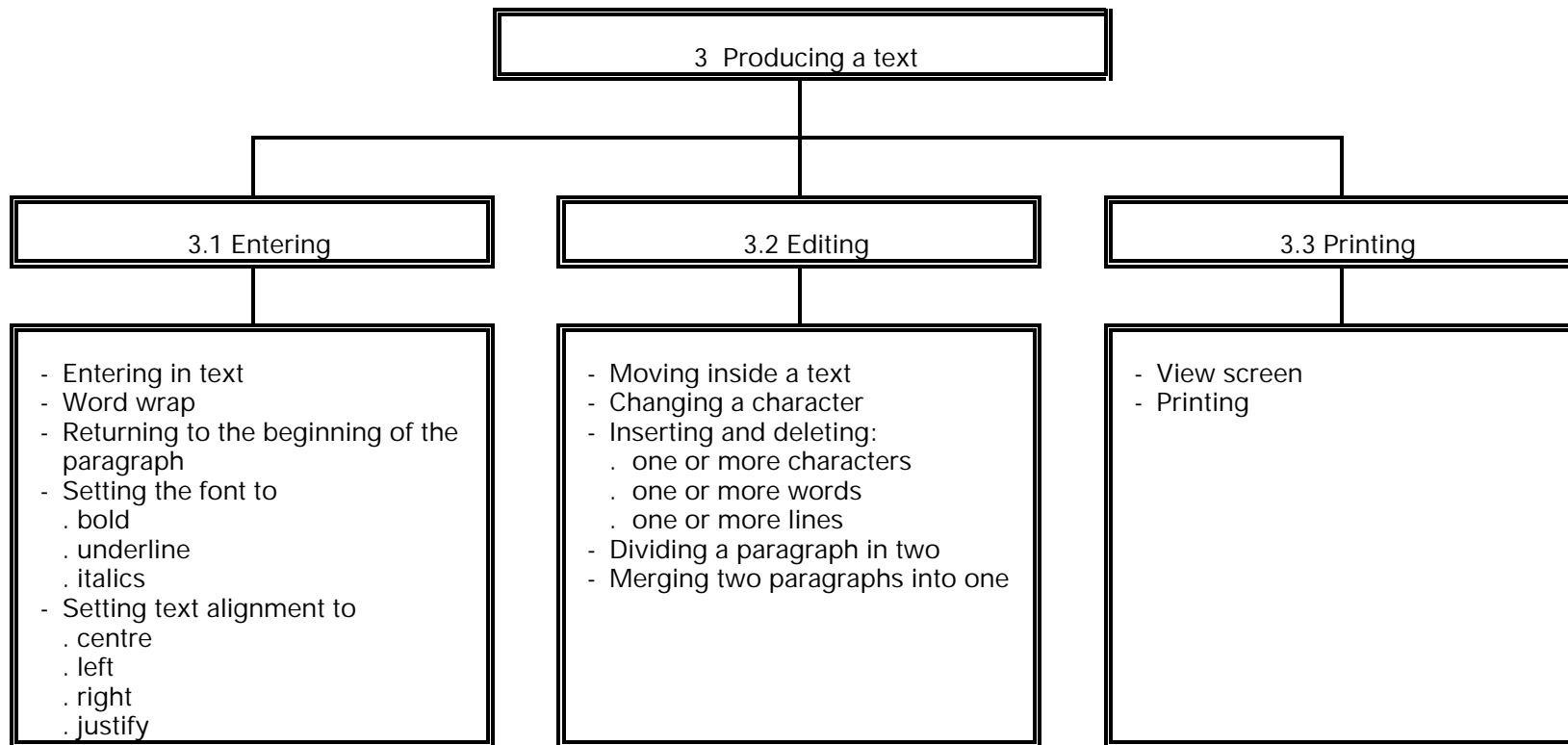


## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 3 To produce a short text using the word-processing program of an integrated software package.

INTERMEDIATE OBJECTIVES: 3.1 To key in a text.  
3.2 To use the functions for editing, deleting characters and for inserting and deleting lines.  
3.3 To print a text.

### RELATED CONTENT

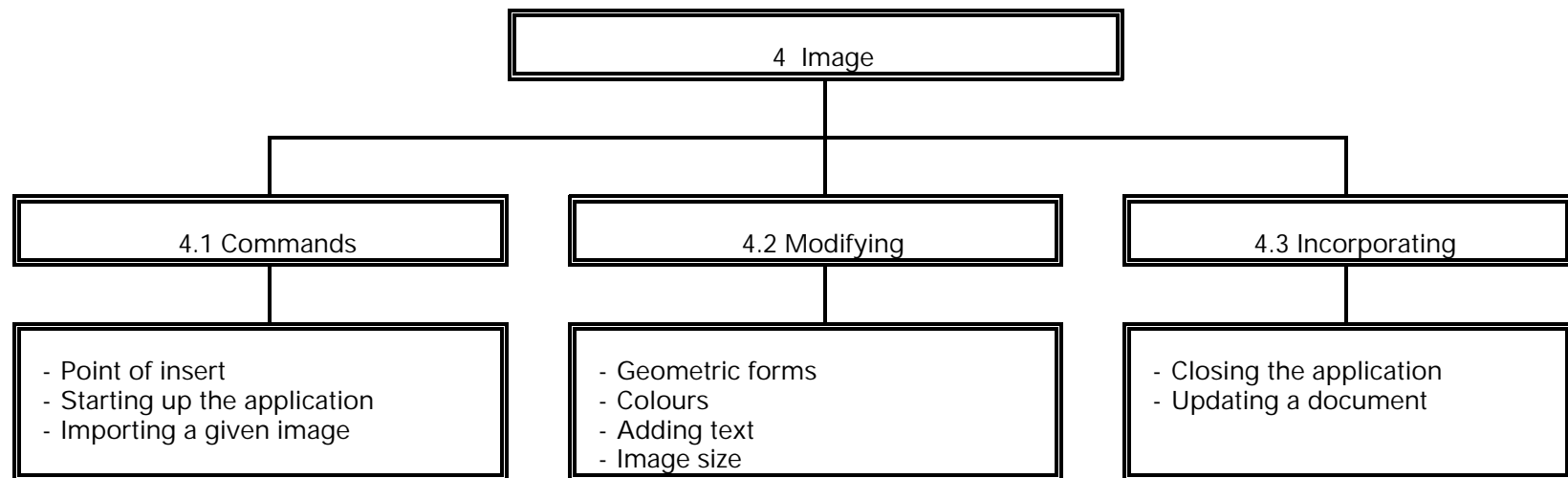


## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 4 To incorporate a modified image into a text.

INTERMEDIATE OBJECTIVES: 4.1 To use the basic commands of the drawing application.  
4.2 To modify an image using the different capabilities of the drawing application.  
4.3 To incorporate an image into a given text.

### RELATED CONTENT

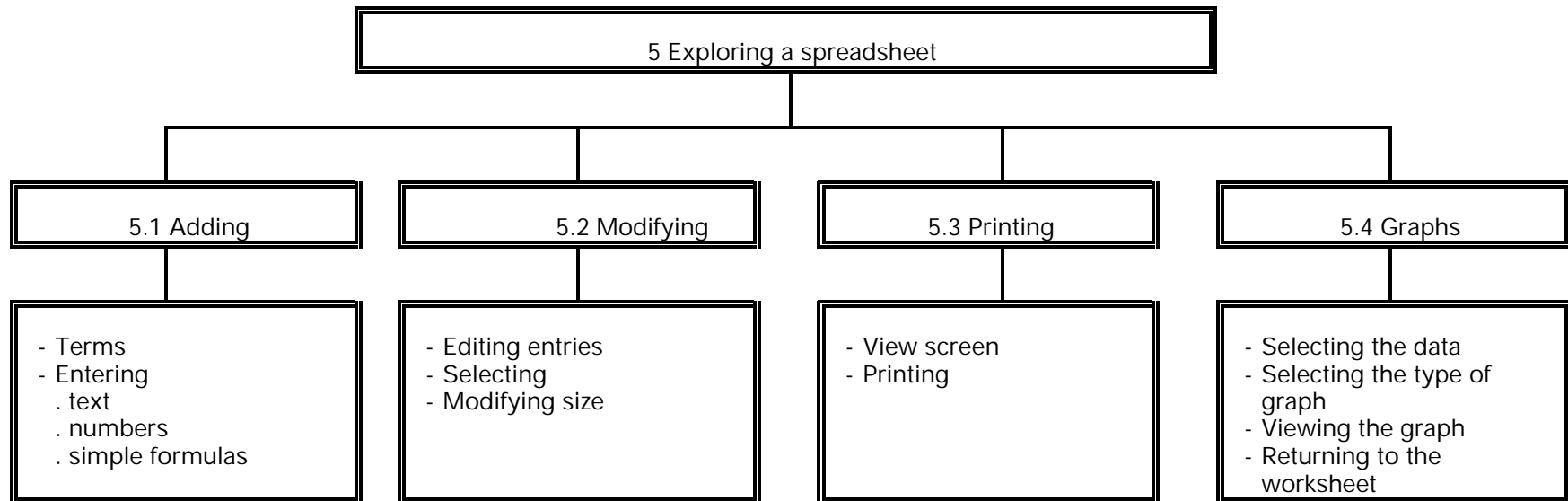


## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 5 Using given files, to use basic commands for calculating, printing and displaying the spreadsheet application of an integrated software package.

INTERMEDIATE OBJECTIVES: 5.1 To adjust the data on a spreadsheet.  
5.2 To change a spreadsheet's presentation by using different column widths.  
5.3 To print a spreadsheet.  
5.4 To view a graph, using selected data.

### RELATED CONTENT

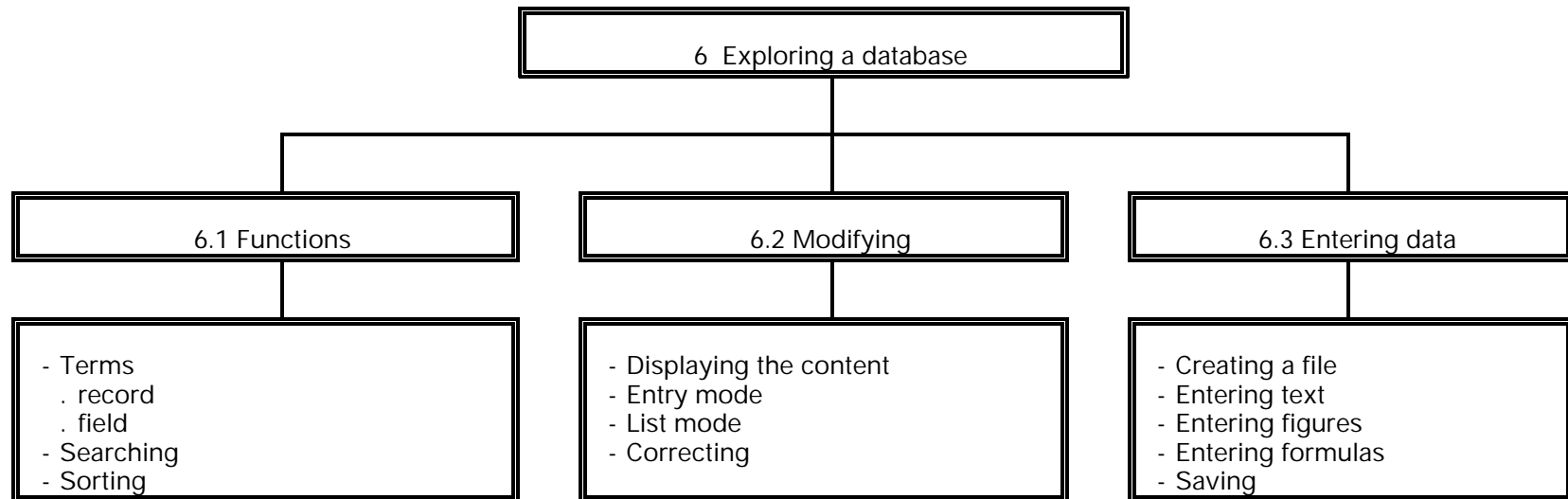


## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 6 Using given files, to use the main commands for creating, calculating and sorting the database applications of an integrated software package.

INTERMEDIATE OBJECTIVES: 6.1 To describe the main functions of a database.  
6.2 To change the data items in a given file.  
6.3 To produce a data file comprising a simple calculation.

### RELATED CONTENT



## TITLE: EXPLORING MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 7 To carry out an assignment using the capabilities for integrating different applications.

INTERMEDIATE OBJECTIVES: 7.1 To explore different integrating functions.  
7.2 To carry out an activity integrating at least two applications.

**WORD PROCESSING**

## TITLE: WORD PROCESSING I

LEVEL: Secondary IV

DURATION: 25 hours

NUMBER OF CREDITS: 1 credit

ORIENTATION OF THE COURSE: The *Word Processing I* course is designed to help adults acquire the basic knowledge related to word processing. It enables them to use the basic functions for producing a text on a microcomputer. After this course, adults will become sufficiently autonomous to be able to use word processing as a tool in all their courses.

GENERAL OBJECTIVE: To acquire the minimum skills required for using a word-processing program.

TERMINAL OBJECTIVES:

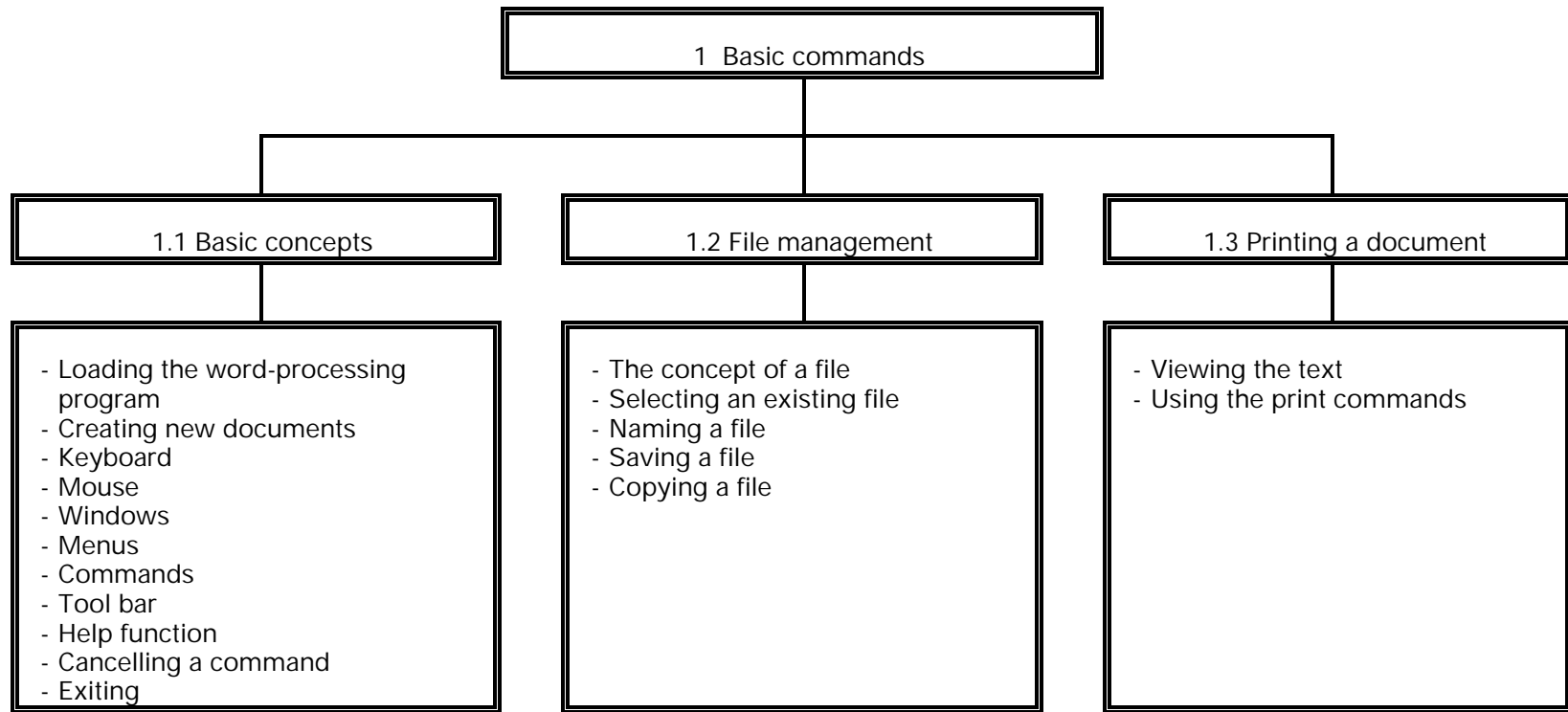
- 1) To use the basic commands for loading a word-processing program, managing files and printing a document.
- 2) To produce a short printed text.
- 3) To modify a given text.
- 4) To reproduce a one-page text using various character formatting functions.
- 5) To change the presentation of a text using paragraph formatting functions such as line spacing, paragraph alignment, paragraph indent and paragraph border.

# TITLE: WORD PROCESSING I

TERMINAL OBJECTIVE: 1 To use the basic commands for loading a word-processing program, managing files and printing a document.

INTERMEDIATE OBJECTIVES: 1.1 To recognize the basic commands required for using a word-processing program.  
1.2 To change the name of a document using file management commands.  
1.3 To use the view screen and print functions to view and print a given text.

## RELATED CONTENT

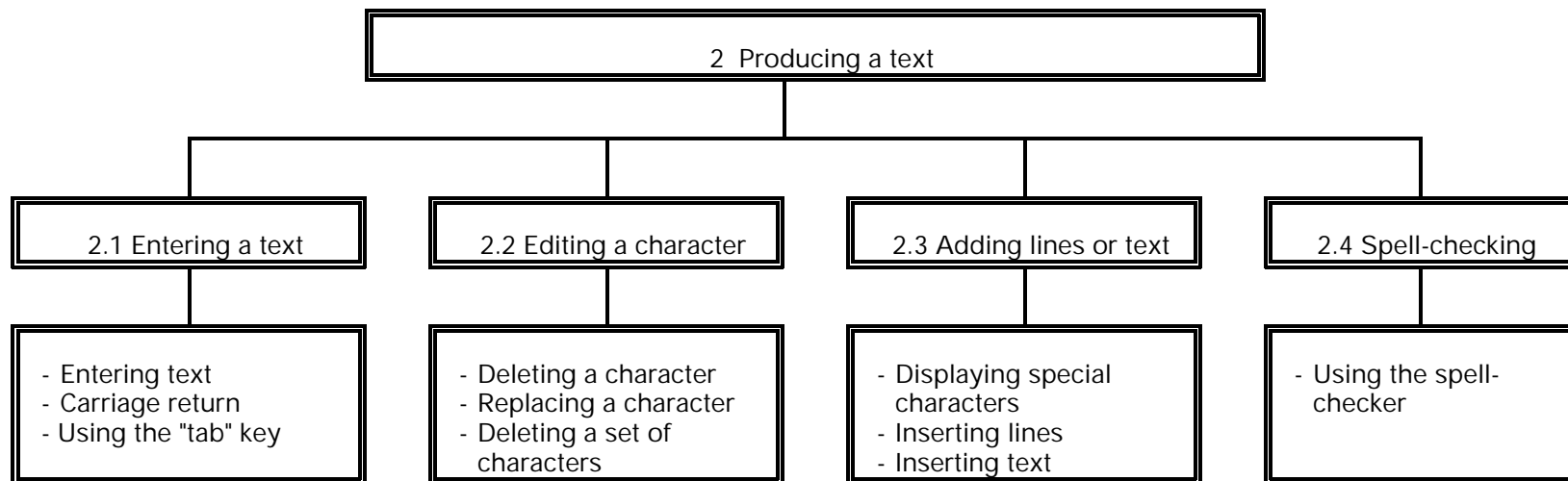


## TITLE: WORD PROCESSING I

TERMINAL OBJECTIVE: 2 To produce a short printed text.

INTERMEDIATE OBJECTIVES: 2.1 To enter a text.  
2.2 To edit a text using the scroll function and the delete-character function.  
2.3 To modify a text by adding one or more sentences and hard returns.  
2.4 To use the spell-check function.

### RELATED CONTENT

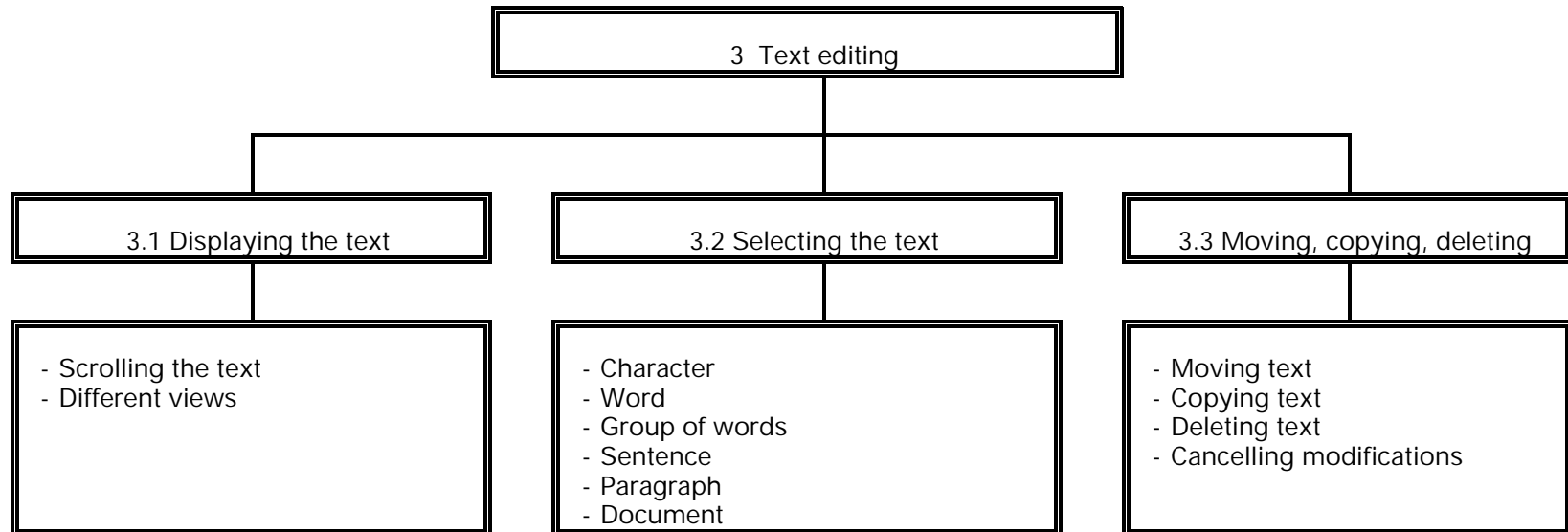


## TITLE: WORD PROCESSING I

TERMINAL OBJECTIVE: 3 To modify a given text.

INTERMEDIATE OBJECTIVES: 3.1 Within the same document, to use the capabilities for moving the cursor and for displaying the screen in different views.  
3.2 To block a section of the text in order to make changes.  
3.3 To change a text by using the commands for moving, copying and deleting a specified section of the text.

### RELATED CONTENT

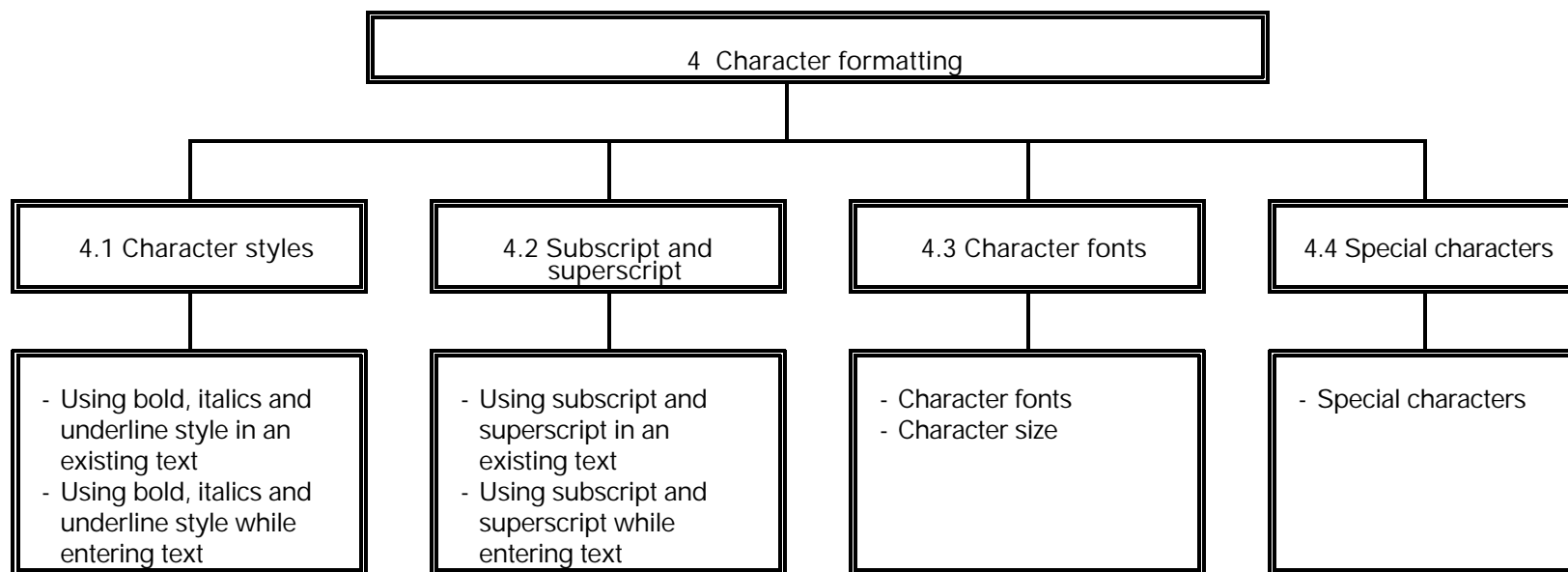


## TITLE: WORD PROCESSING I

TERMINAL OBJECTIVE: 4 To reproduce a one-page text using various character formatting functions.

INTERMEDIATE OBJECTIVES: 4.1 To highlight different parts of a text using bold, underlining and italics.  
4.2 To enter a text containing subscript and superscript characters.  
4.3 To use different character fonts and sizes.  
4.4 To use special characters in a text.

### RELATED CONTENT

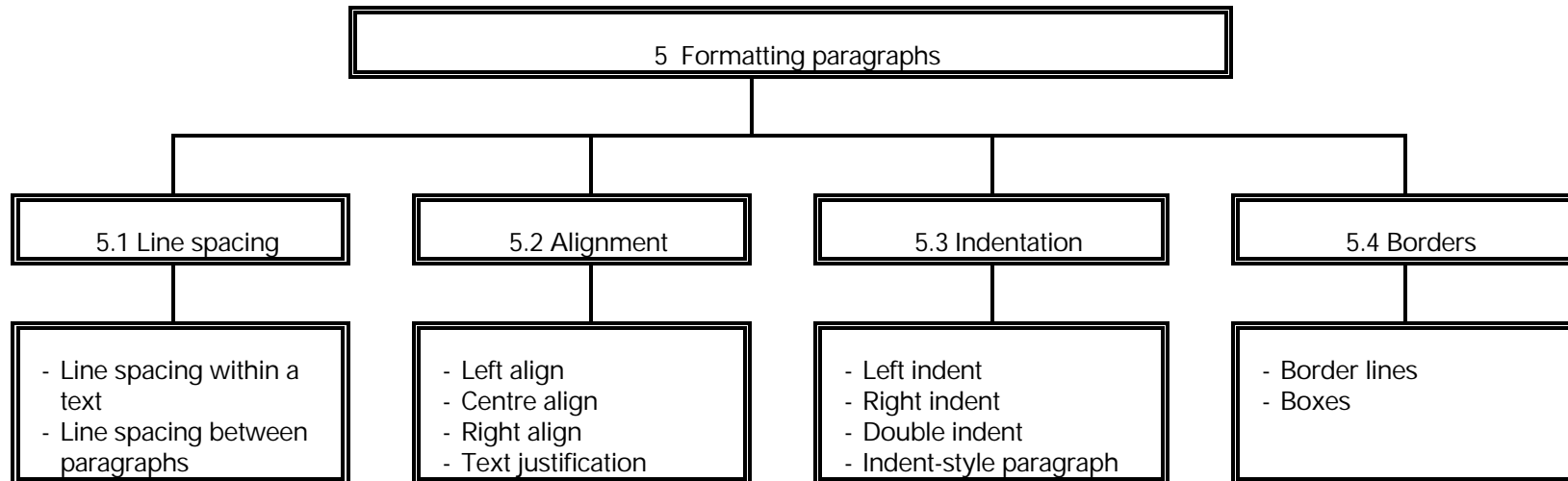


## TITLE: WORD PROCESSING I

TERMINAL OBJECTIVE: 5 To change the presentation of a text using paragraph formatting functions such as line spacing, paragraph alignment, paragraph indent and paragraph border.

INTERMEDIATE OBJECTIVES: 5.1 To change the line spacing in a given text.  
5.2 To use the paragraph alignment capabilities.  
5.3 To produce a text with two different "temporary" margins.  
5.4 To use borders to set off part of a text.

### RELATED CONTENT



## TITLE: WORD PROCESSING II

LEVEL: Secondary IV

DURATION: 25 hours

NUMBER OF CREDITS: 1 credit

ORIENTATION OF THE COURSE: The *Word Processing II* course follows *Word Processing I*. It is designed to broaden the adults' understanding of the notions of text presentation and text editing.

GENERAL OBJECTIVE: To acquire the skills required for using the main functions of a word-processing program.

TERMINAL OBJECTIVES:

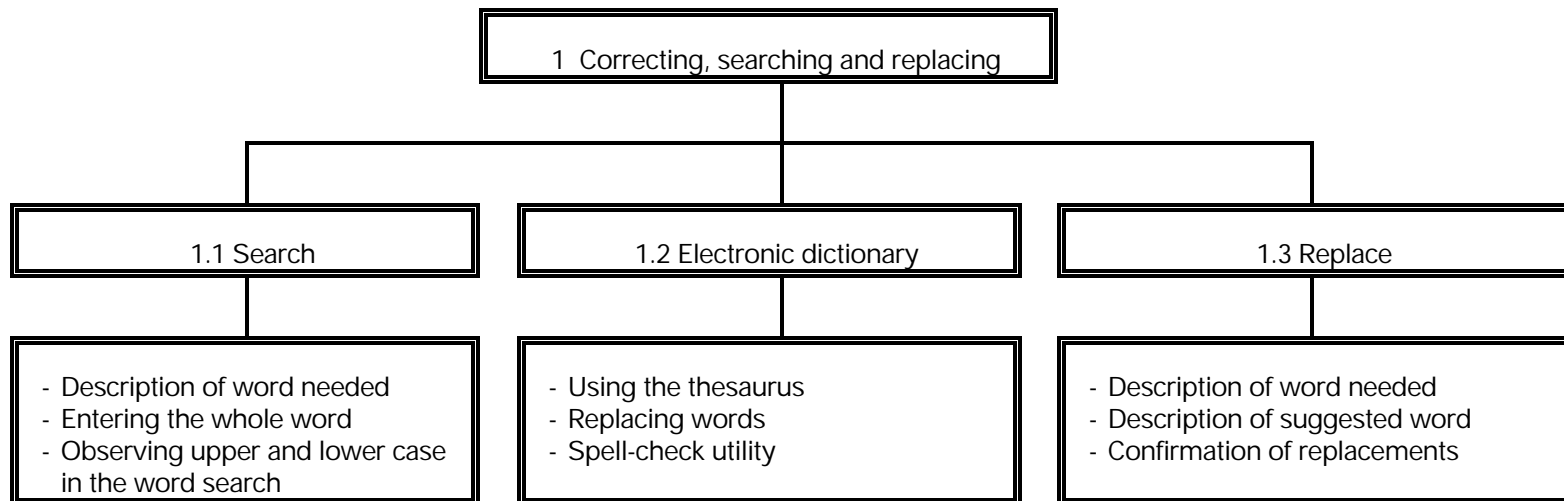
- 1) To change a text using electronic dictionaries and the search and replace functions.
- 2) To incorporate images into a given text.
- 3) To produce a printed version of a text consisting of several numbered pages with margins, headers and footers, taking into account the paper size and page orientation for printing.
- 4) To produce a text containing a table and columns.

## TITLE: WORD PROCESSING II

TERMINAL OBJECTIVE: 1 To change a text using electronic dictionaries and the search and replace functions.

INTERMEDIATE OBJECTIVES: 1.1 To use the search function to find characters in a text.  
1.2 To replace terms in a text using an electronic dictionary.  
1.3 To change a word or a group of words every time it occurs in a text.

### RELATED CONTENT

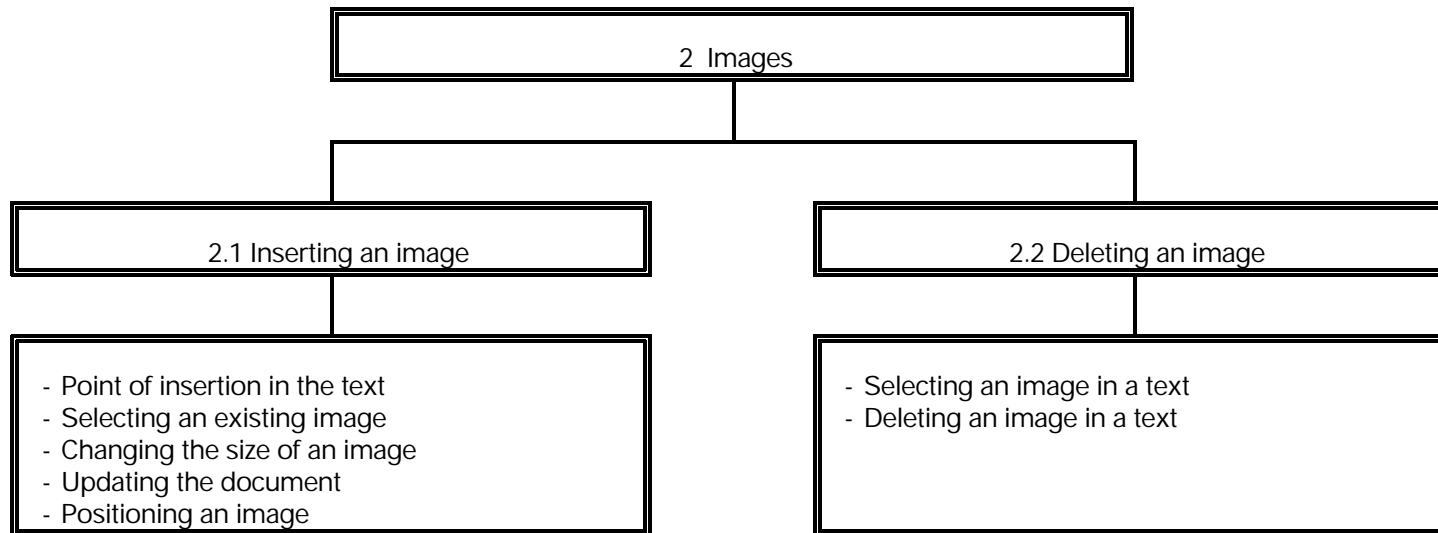


## TITLE: WORD PROCESSING II

TERMINAL OBJECTIVE: 2 To incorporate images into a given text.

INTERMEDIATE OBJECTIVES: 2.1 To insert an image into a document.  
2.2 To delete an image contained in a document.

### RELATED CONTENT

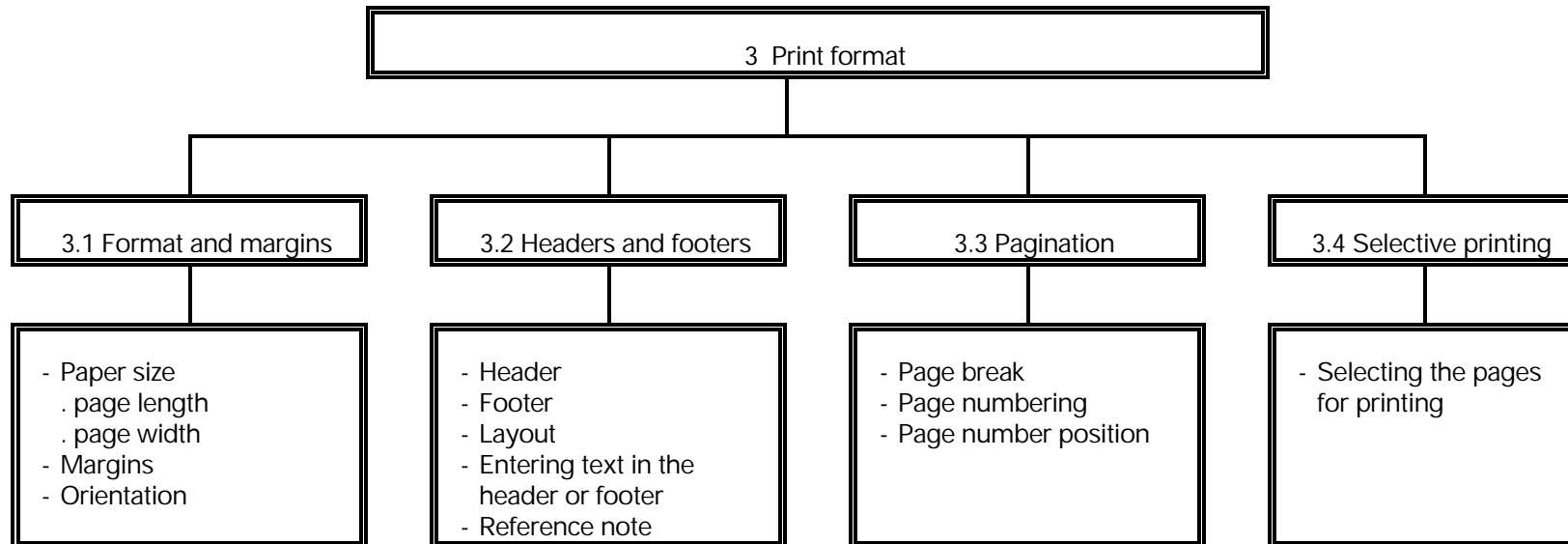


## TITLE: WORD PROCESSING II

TERMINAL OBJECTIVE: 3 To produce a printed version of a text consisting of several numbered pages with margins, headers and footers, taking into account the paper size and page orientation for printing.

INTERMEDIATE OBJECTIVES: 3.1 To select the print format for a text.  
3.2 To produce a printed version of a text with a header or a footer on each page.  
3.3 To use the automatic pagination functions.  
3.4 To print specific pages of a text.

### RELATED CONTENT



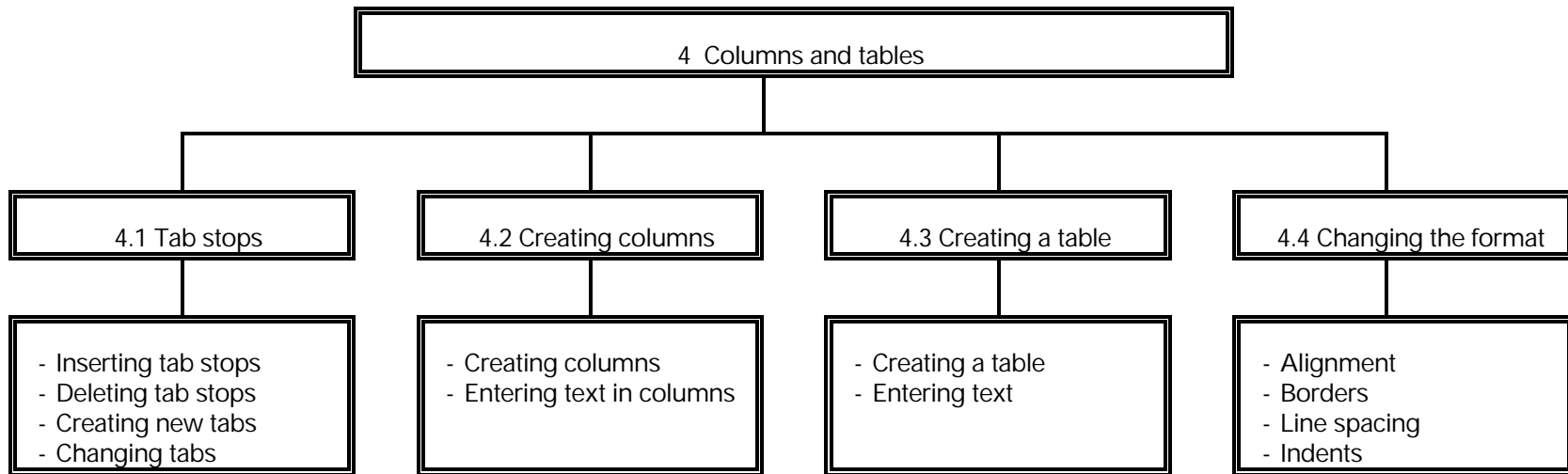
## TITLE: WORD PROCESSING II

TERMINAL OBJECTIVE: 4 To produce a text containing a table and columns.

INTERMEDIATE OBJECTIVES:

- 4.1 To use tab stops.
- 4.2 To use the functions for creating columns.
- 4.3 To use the functions for creating a table.
- 4.4 To change the format of a table or the columns in a given text.

### RELATED CONTENT



**SPREADSHEETS**

## TITLE: SPREADSHEETS I

LEVEL: Secondary IV

DURATION: 25 hours

NUMBER OF CREDITS: 1 credit

ORIENTATION OF THE COURSE: The *Spreadsheets I* course helps adults acquire the basic knowledge related to using a spreadsheet program. It enables them to use the basic functions required for producing a spreadsheet on a microcomputer. At the end of this course, adults will become sufficiently autonomous to be able to use a spreadsheet program as a work tool in all their courses.

GENERAL OBJECTIVE: To acquire the minimum skills required for using a spreadsheet program.

TERMINAL OBJECTIVES:

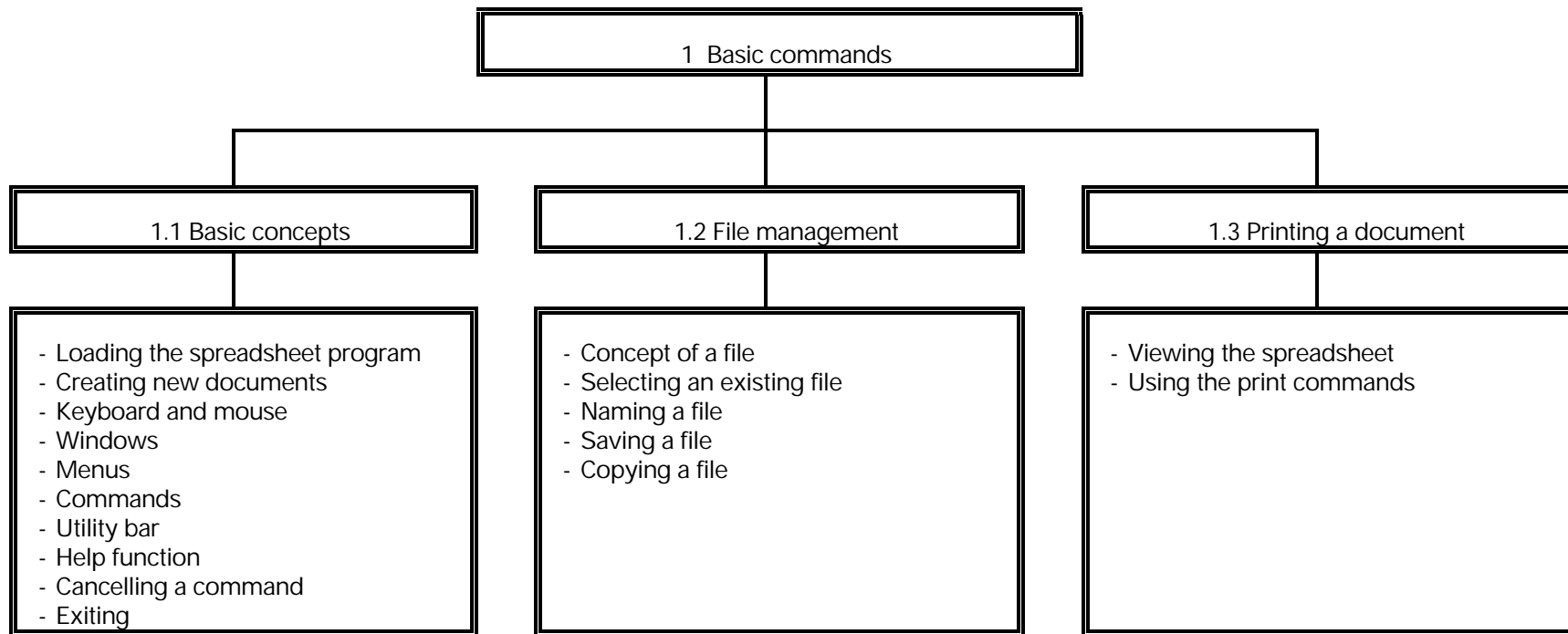
- 1) To use the basic commands for loading a spreadsheet program, managing files and printing a document.
- 2) To produce a printed version of a spreadsheet comprising text and numbers.
- 3) To complete a spreadsheet using the mathematical formulas or statistical functions of a spreadsheet program.
- 4) To use the main functions for formatting a spreadsheet.

## TITLE: SPREADSHEETS I

TERMINAL OBJECTIVE: 1 To use the basic commands for loading a spreadsheet program, managing files and printing a document.

INTERMEDIATE OBJECTIVES: 1.1 To recognize the basic commands required for using a spreadsheet program.  
1.2 To change the name of a file using file management commands.  
1.3 To use the functions for viewing and printing a given spreadsheet.

### RELATED CONTENT

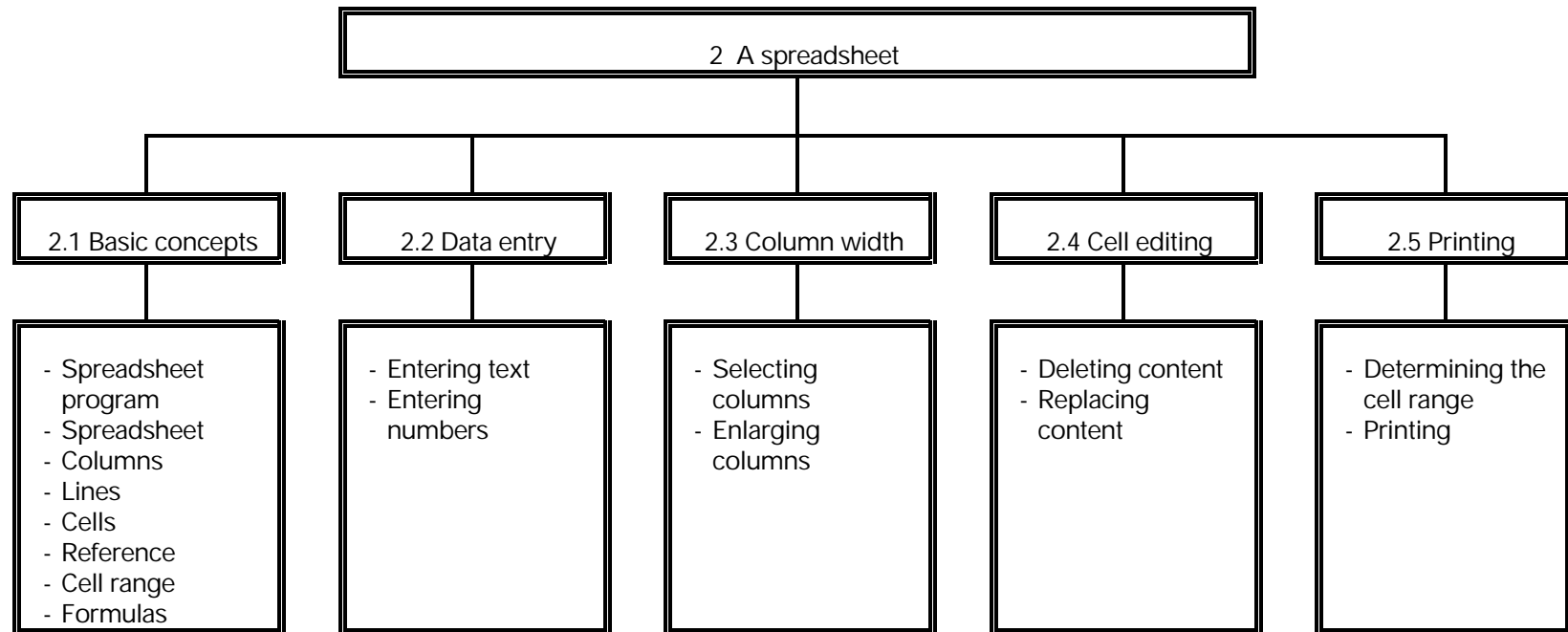


## TITLE: SPREADSHEETS I

TERMINAL OBJECTIVE: 2 To produce a printed version of a spreadsheet comprising text and numbers.

INTERMEDIATE OBJECTIVES: 2.1 To know the basic terms associated with a spreadsheet.  
2.2 To enter a text and numbers.  
2.3 To change the column width according to the data.  
2.4 To edit a spreadsheet using the functions for replacing and deleting cells.  
2.5 To print a spreadsheet.

### RELATED CONTENT

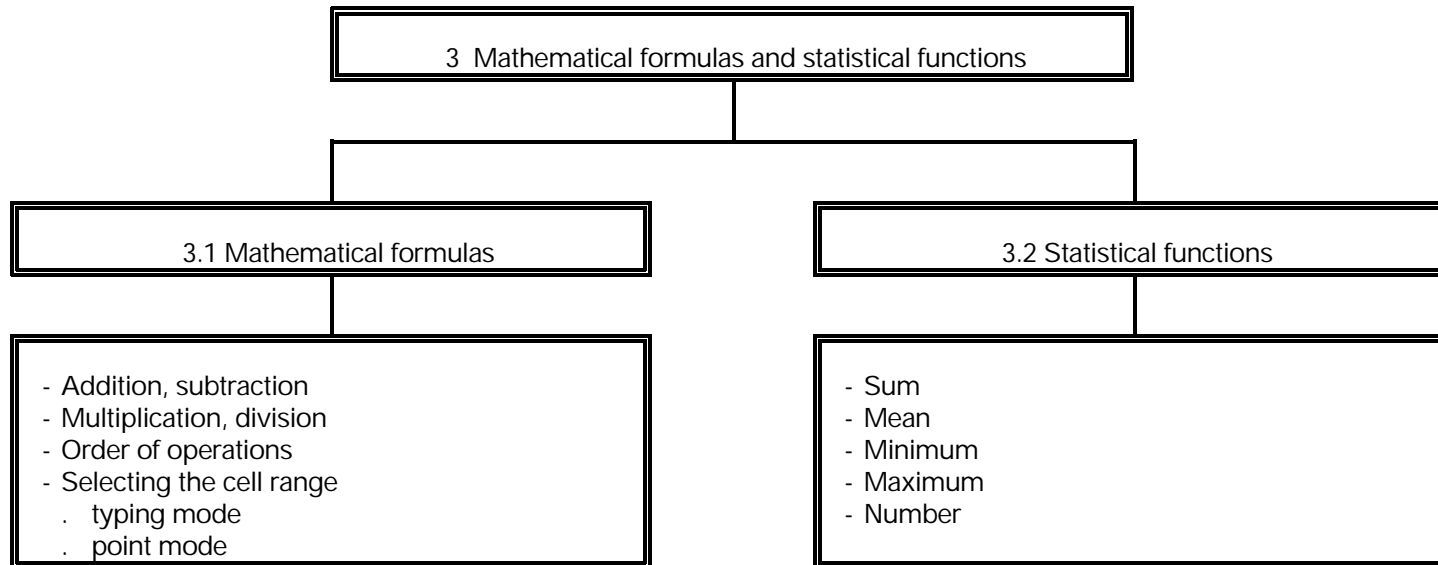


## TITLE: SPREADSHEETS I

TERMINAL OBJECTIVE: 3 To complete a spreadsheet using the mathematical formulas and statistical functions of a spreadsheet program.

INTERMEDIATE OBJECTIVES: 3.1 To use mathematical formulas in a given spreadsheet.  
3.2 To use the main statistical functions of a spreadsheet program.

### RELATED CONTENT

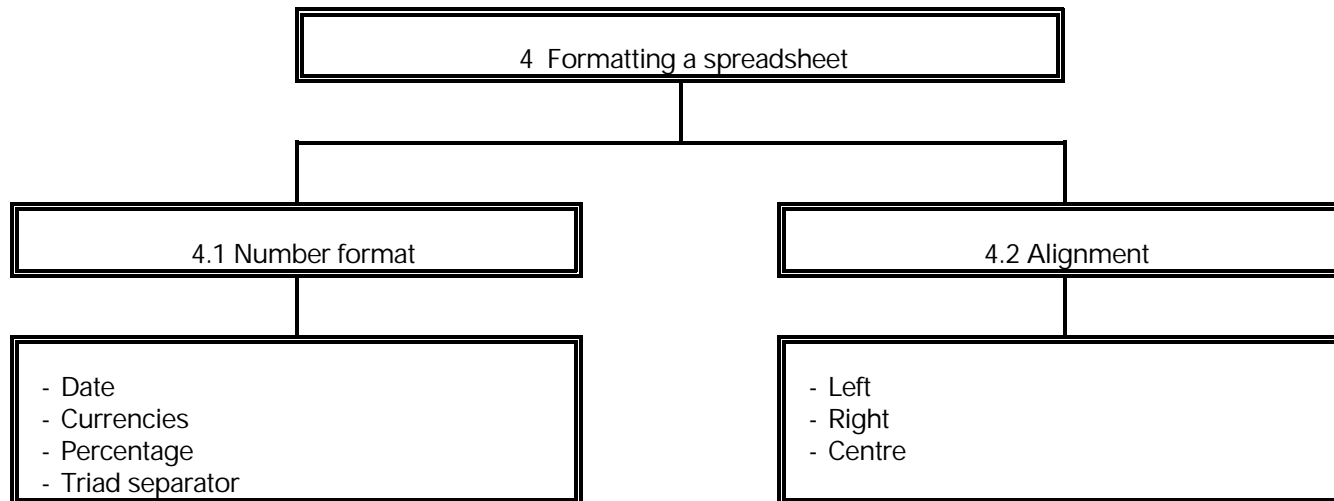


## TITLE: SPREADSHEETS I

TERMINAL OBJECTIVE: 4 To use the main functions for formatting a spreadsheet.

INTERMEDIATE OBJECTIVES: 4.1 To change the number presentation using the different presentation formats.  
4.2 To align the contents of the cells of a spreadsheet.

### RELATED CONTENT



## TITLE: SPREADSHEETS II

LEVEL: Secondary IV

DURATION: 25 hours

NUMBER OF CREDITS: 1 credit

ORIENTATION OF THE COURSE: The *Spreadsheets II* course follows *Spreadsheets I* and is designed to enable adults to further their knowledge of the functions of a spreadsheet program.

GENERAL OBJECTIVE: To acquire the skills required for using the main functions of a spreadsheet program.

TERMINAL OBJECTIVES:

- 1) To change a spreadsheet using the commands for moving the cells, for inserting and deleting rows and columns, and for editing the contents of the cells.
- 2) To arrange the contents of a spreadsheet.
- 3) To prepare a spreadsheet model using the copy commands of a spreadsheet program.
- 4) To produce a printed version of a spreadsheet consisting of several numbered pages with margins, headers and footers, taking into account the paper size and page orientation for printing.
- 5) To produce a printed chart based on a spreadsheet, using the main graphics commands of a spreadsheet program.

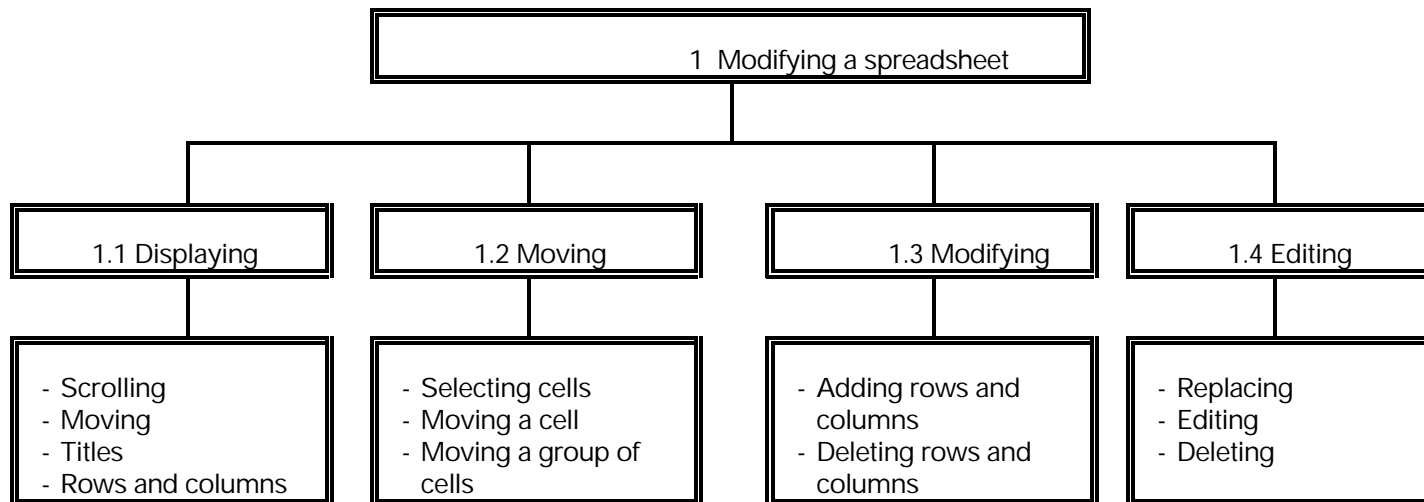
## TITLE: SPREADSHEETS II

TERMINAL OBJECTIVE: 1 To change a spreadsheet using the commands for moving the cells, for inserting and deleting rows and columns, and for editing the contents of the cells.

INTERMEDIATE OBJECTIVES:

- 1.1 To use the spreadsheet capabilities for moving within a document and for displaying the different views.
- 1.2 To change a spreadsheet by moving the contents of the cells.
- 1.3 To change a spreadsheet by adding or deleting rows and columns.
- 1.4 To change the contents of the cells of a spreadsheet by using the commands for replacing, deleting and editing the cells.

### RELATED CONTENT

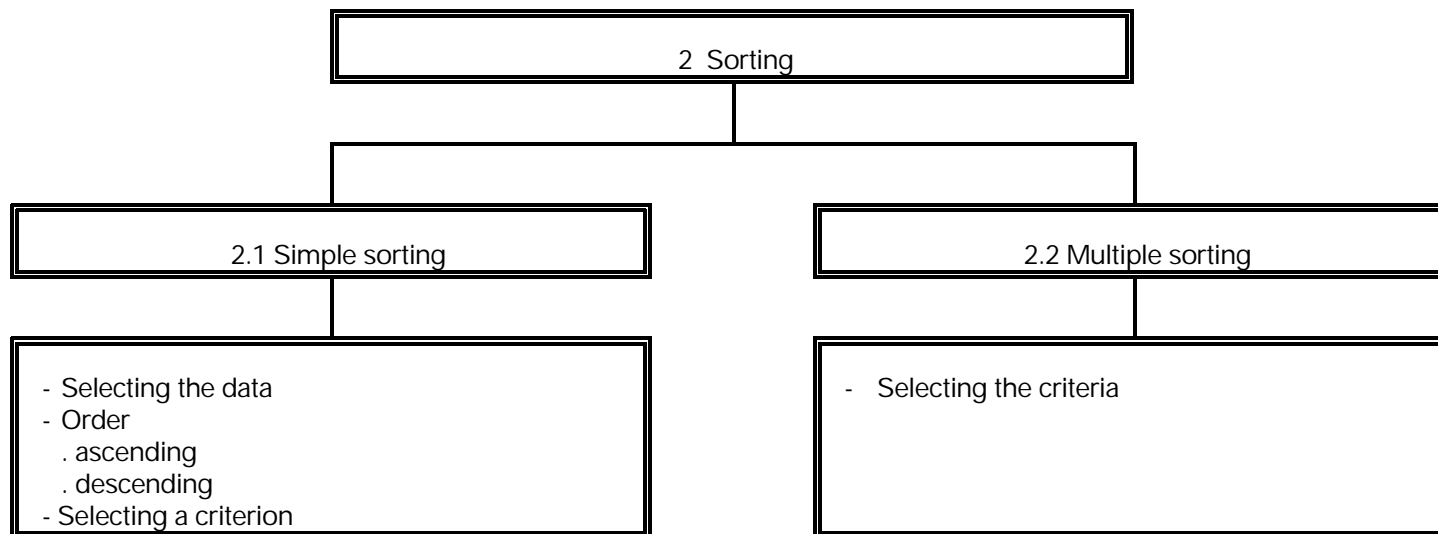


## TITLE: SPREADSHEETS II

TERMINAL OBJECTIVE: 2 To arrange the contents of a spreadsheet.

INTERMEDIATE OBJECTIVES: 2.1 To arrange the contents of a spreadsheet containing one selection criterion.  
2.2 To arrange the contents of a spreadsheet containing more than one selection criterion.

### RELATED CONTENT

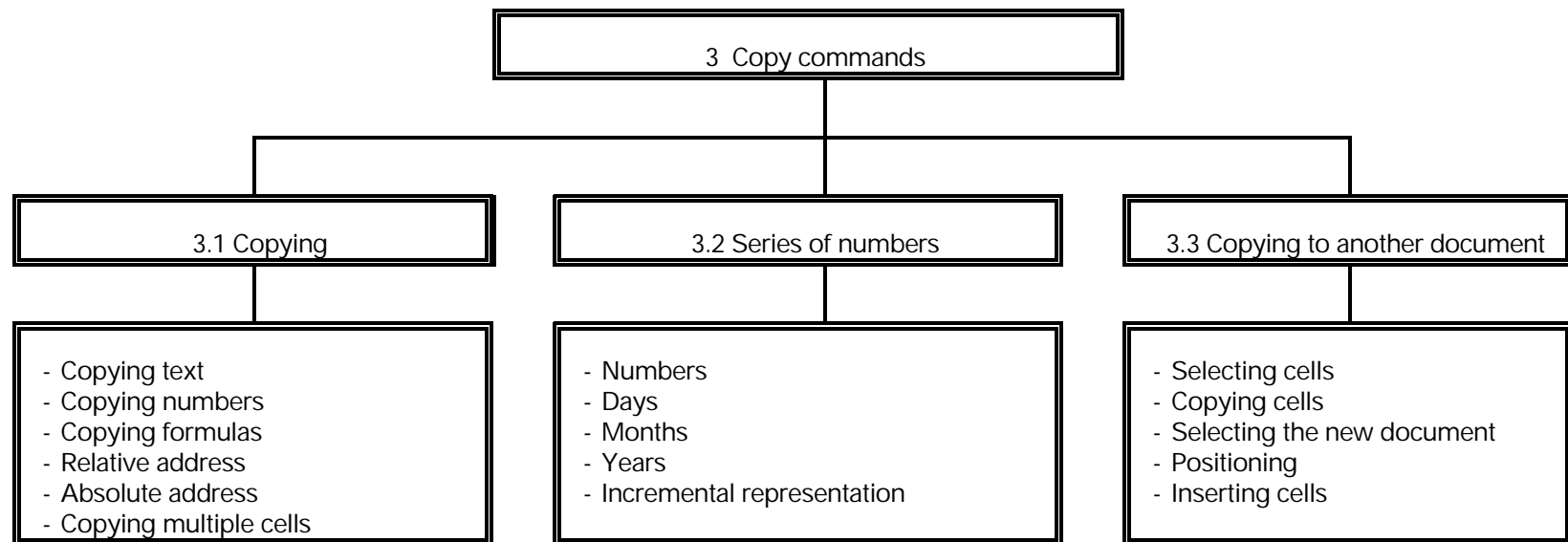


## TITLE: SPREADSHEETS II

TERMINAL OBJECTIVE: 3 To prepare a spreadsheet model using the copy commands of a spreadsheet program.

INTERMEDIATE OBJECTIVES: 3.1 To finish entering data using the copy commands.  
3.2 To enter a series of numbers or dates in a spreadsheet.  
3.3 To copy a part of a spreadsheet to another document.

### RELATED CONTENT



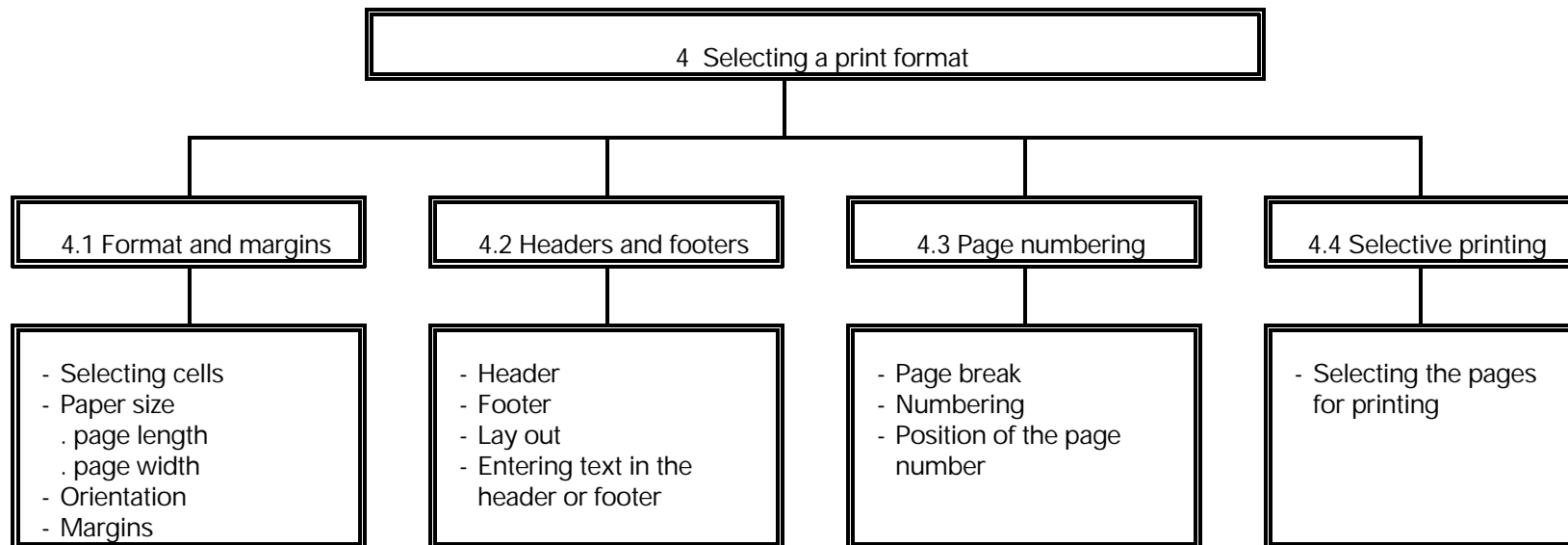
## TITLE: SPREADSHEETS II

TERMINAL OBJECTIVE: 4 To produce a printed version of a spreadsheet consisting of several numbered pages with margins, headers and footers, taking into account the paper size and page orientation for printing.

INTERMEDIATE OBJECTIVES:

- 4.1 To select the print format for a spreadsheet.
- 4.2 To produce a printed version of a spreadsheet with a header or a footer on each page.
- 4.3 To use the automatic pagination function.
- 4.4 To print specific pages of a spreadsheet.

### RELATED CONTENT

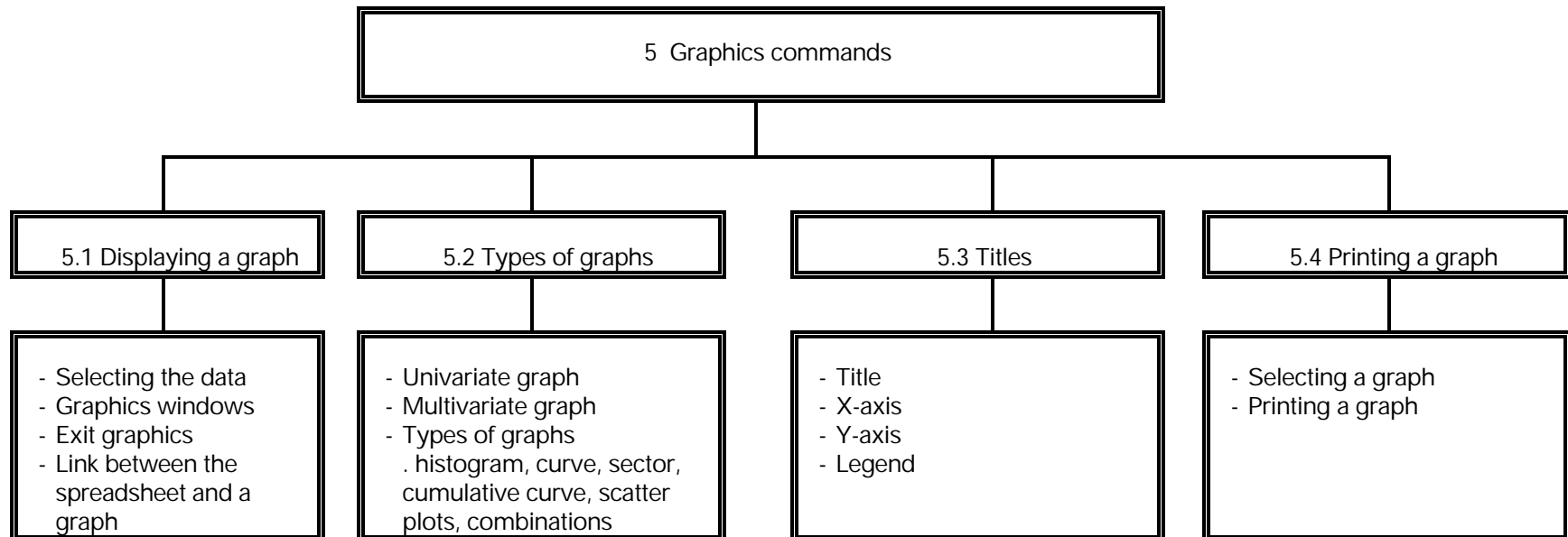


## TITLE: SPREADSHEETS II

TERMINAL OBJECTIVE: 5 To produce a printed graph based on a spreadsheet, using the main graphics commands of a spreadsheet program.

INTERMEDIATE OBJECTIVES: 5.1 To display a graph on screen.  
5.2 To change the type of graph.  
5.3 To add titles and a legend to a graph.  
5.4 To print a graph.

### RELATED CONTENT



**DATABASES**

## TITLE: CONSULTING DATABASES

LEVEL: Secondary IV

DURATION: 25 hours

NUMBER OF CREDITS: 1 credit

ORIENTATION OF THE COURSE: The *Consulting Databases* course is designed to help adults acquire the basic knowledge related to using a database. It enables adults to use the basic functions for searching, querying and classifying information. In light of the development of new information technologies, this course enables adults to become sufficiently autonomous to be able to use a database as a work tool in all their courses. By using the knowledge acquired in this course, adults will be able to make the kind of connections that will enable them to optimally exploit the many database applications available on the information highway and to use the various applications offered by databases available on CD-ROM.

GENERAL OBJECTIVE: To acquire the minimum skills required for using a database.

TERMINAL OBJECTIVES:

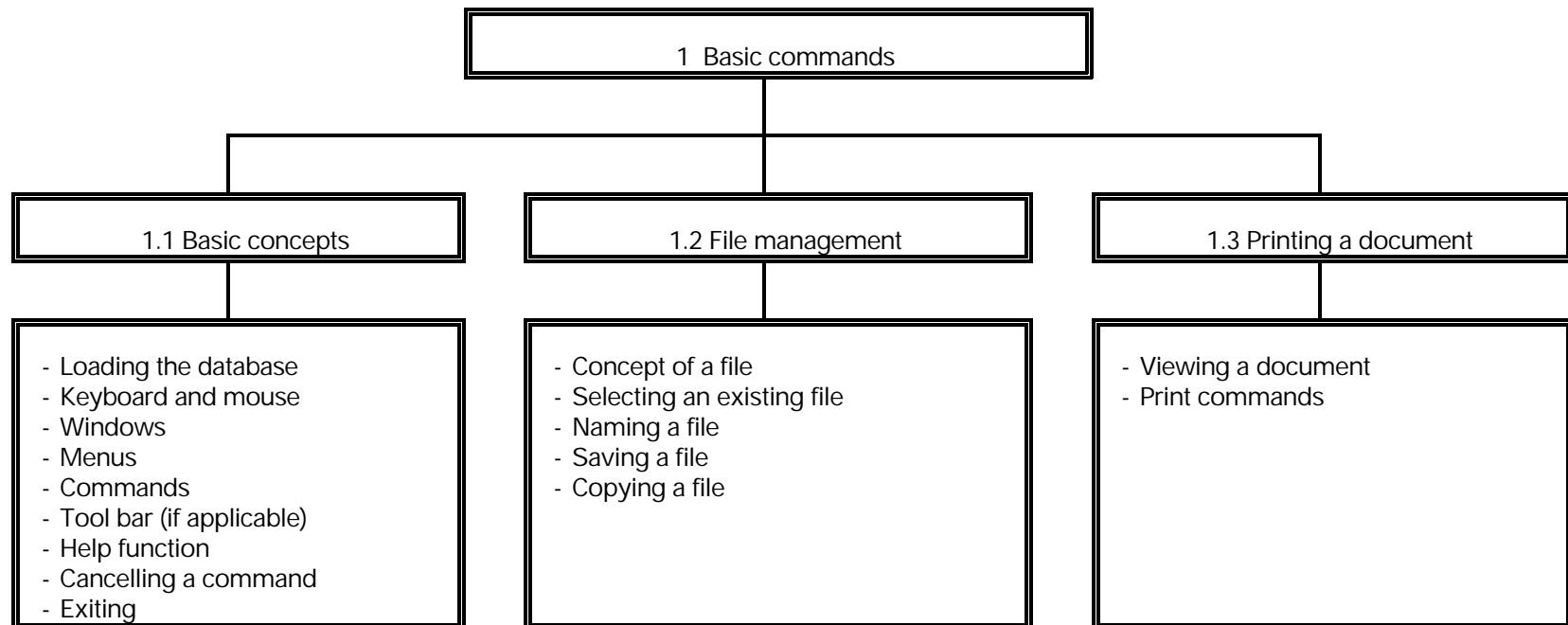
- 1) To use the basic functions required for loading a database, and for managing and printing files.
- 2) To use the main options for querying and displaying a file in a database.
- 3) To change a database display by using the different options for classifying information.

## TITLE: CONSULTING DATABASES

TERMINAL OBJECTIVE: 1 To use the basic functions required for loading a database, and for managing and printing files.

INTERMEDIATE OBJECTIVES: 1.1 To recognize the basic functions required for using a database.  
1.2 To change the name of a file using file management commands.  
1.3 To use the functions required for viewing and printing a document.

### RELATED CONTENT

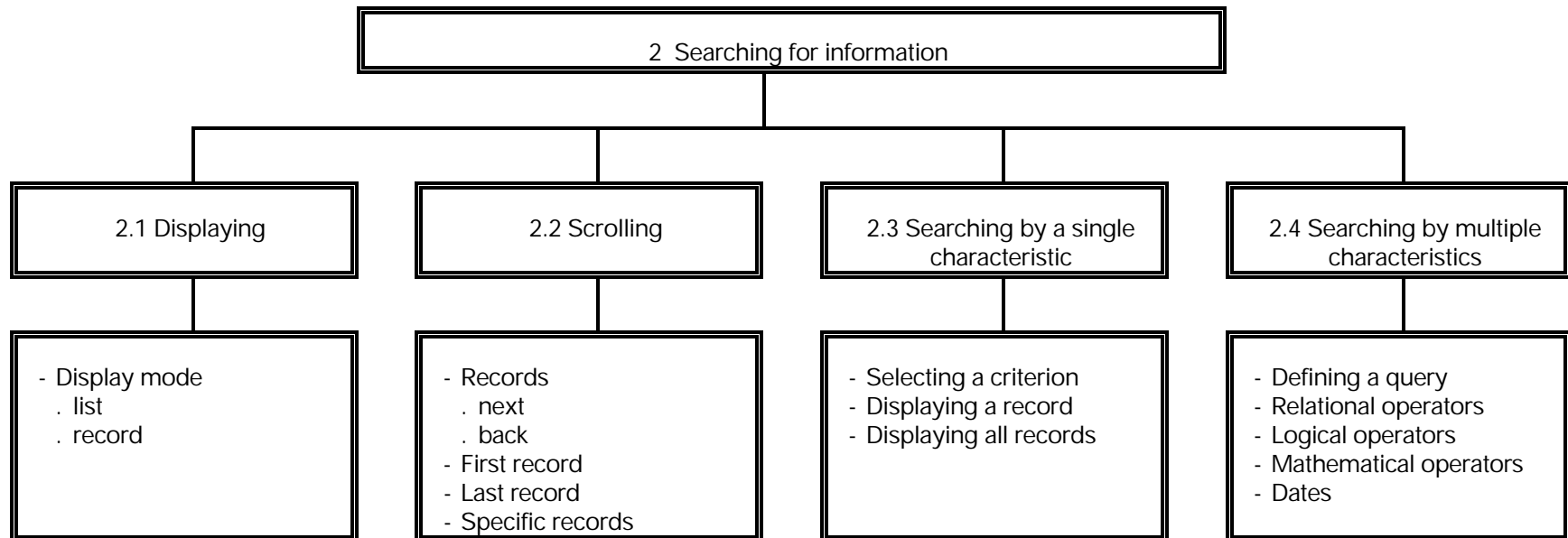


## TITLE: CONSULTING DATABASES

TERMINAL OBJECTIVE: 2 To use the main options for querying and displaying a file in a database.

INTERMEDIATE OBJECTIVES: 2.1 To display several records.  
2.2 To use the scrolling function in a list of records.  
2.3 To find records containing a common characteristic.  
2.4 To find records containing several common characteristics.

### RELATED CONTENT

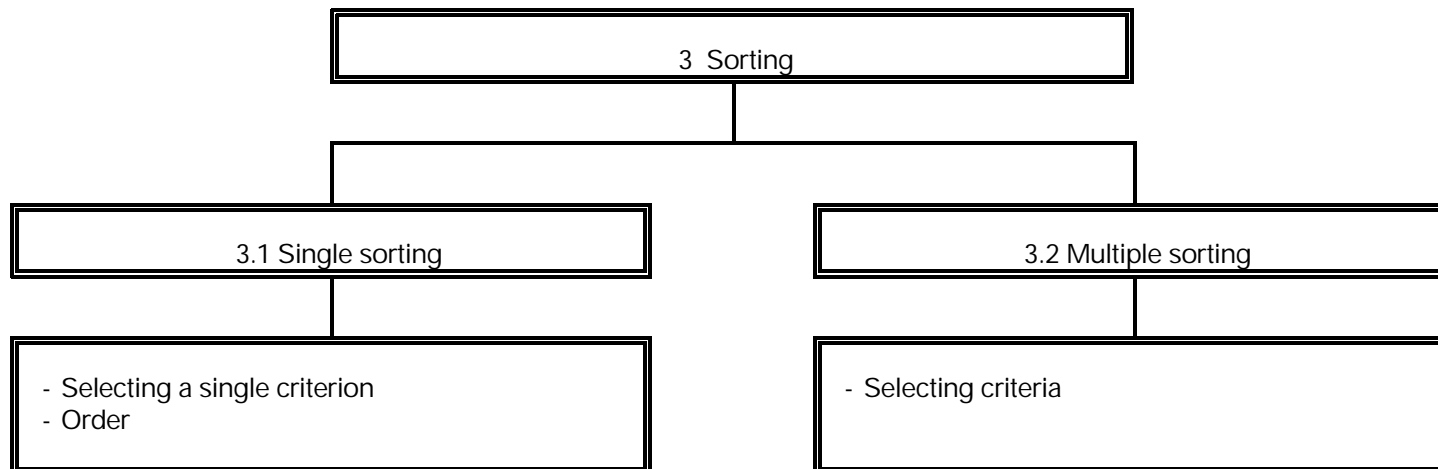


## TITLE: CONSULTING DATABASES

TERMINAL OBJECTIVE: 3 To change a database display by using the different options for classifying information.

INTERMEDIATE OBJECTIVES: 3.1 To arrange the content of a database file using a single selection criterion.  
3.2 To order the content of a database file using more than one selection criterion.

### RELATED CONTENT



## TITLE: CREATING A DATABASE

LEVEL: Secondary IV

DURATION: 50 hours

NUMBER OF CREDITS: 2 credits

ORIENTATION OF THE COURSE: The *Creating a Database* course enables adults to further their knowledge of the different database functions. At the end of this course, adults will be able to use the basic functions required for creating a database.

GENERAL OBJECTIVE: To acquire the skills required for using the functions of a database.

TERMINAL OBJECTIVES:

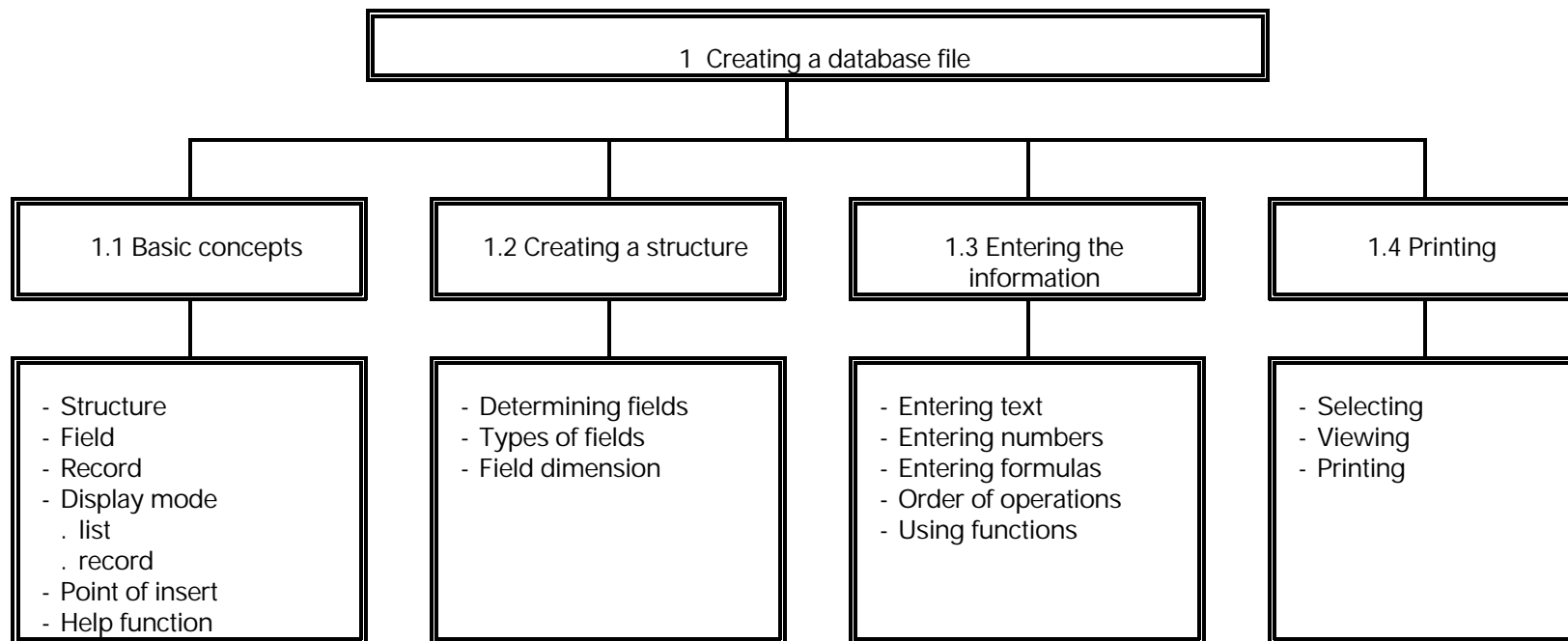
- 1) Using a database, to produce a file that incorporates text, numbers and mathematical formulas.
- 2) To change a database file by using the commands for inserting and deleting fields and records, and by changing the size and type of fields and the information contained in the records.
- 3) To produce a printed version of a database consisting of several numbered pages with headers and footers.
- 4) To produce a report, using a database.

## TITLE: CREATING A DATABASE

TERMINAL OBJECTIVE: 1 Using a database, to produce a file that incorporates text, numbers and mathematical formulas.

INTERMEDIATE OBJECTIVES: 1.1 To be familiar with the main terms associated with a database.  
1.2 To create a database structure.  
1.3 To enter text, numbers and formulas.  
1.4 To print a record.

### RELATED CONTENT

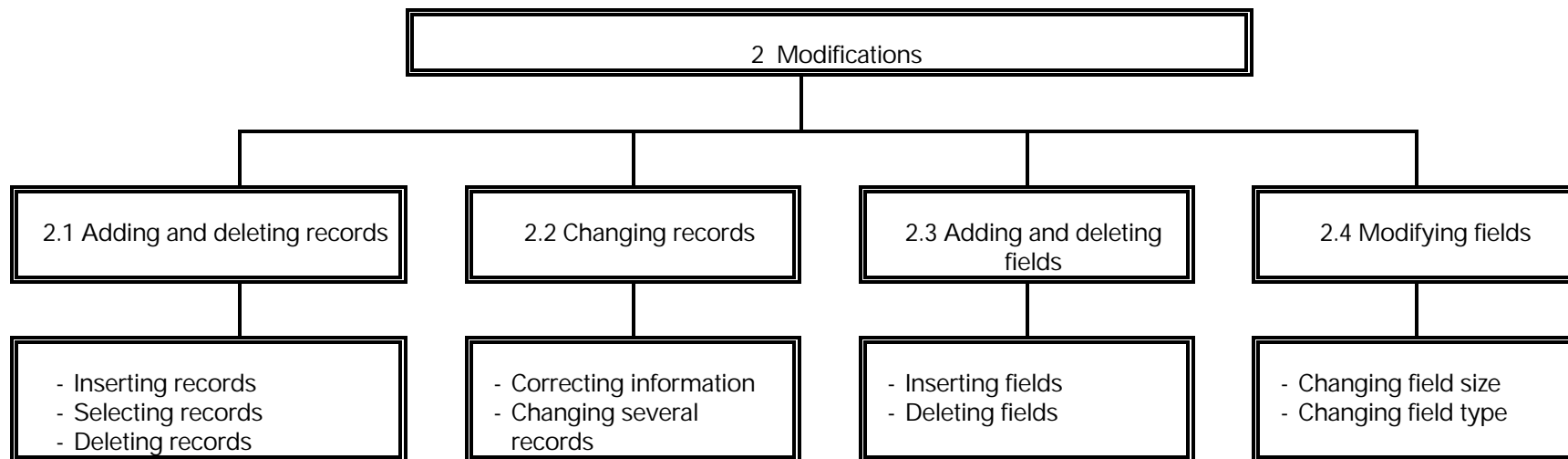


## TITLE: CREATING A DATABASE

TERMINAL OBJECTIVE: 2 To change a database file by using the commands for inserting and deleting fields and records, and by changing the size and type of fields and the information contained in the records.

INTERMEDIATE OBJECTIVES: 2.1 To change a file by inserting and deleting records.  
2.2 To change the information contained in a database file.  
2.3 To change a file by inserting and deleting fields.  
2.4 To change the size and type of fields in a database file.

### RELATED CONTENT

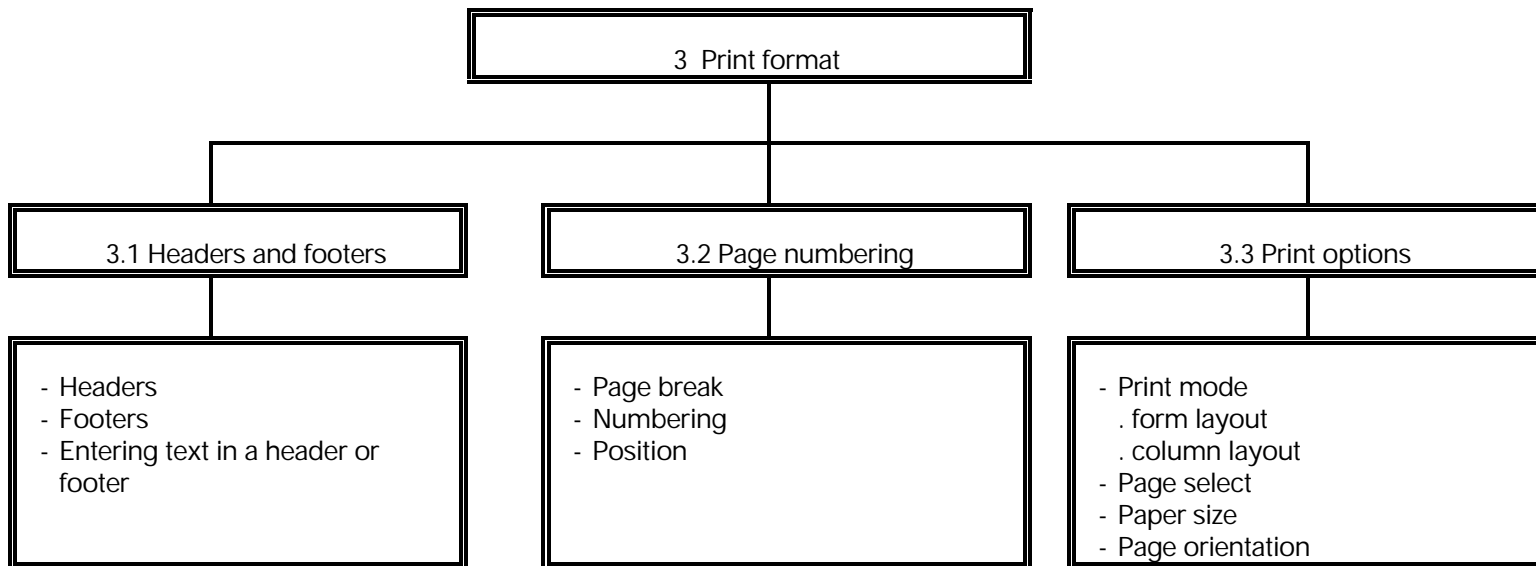


## TITLE: CREATING A DATABASE

TERMINAL OBJECTIVE: 3 To produce a printed version of a database consisting of several numbered pages with headers and footers.

INTERMEDIATE OBJECTIVES: 3.1 To produce a printed version of a database with headers or footers on every page.  
3.2 To use automatic page numbering.  
3.3 Using different print options, to print a database file in column and in form layout mode.

### RELATED CONTENT



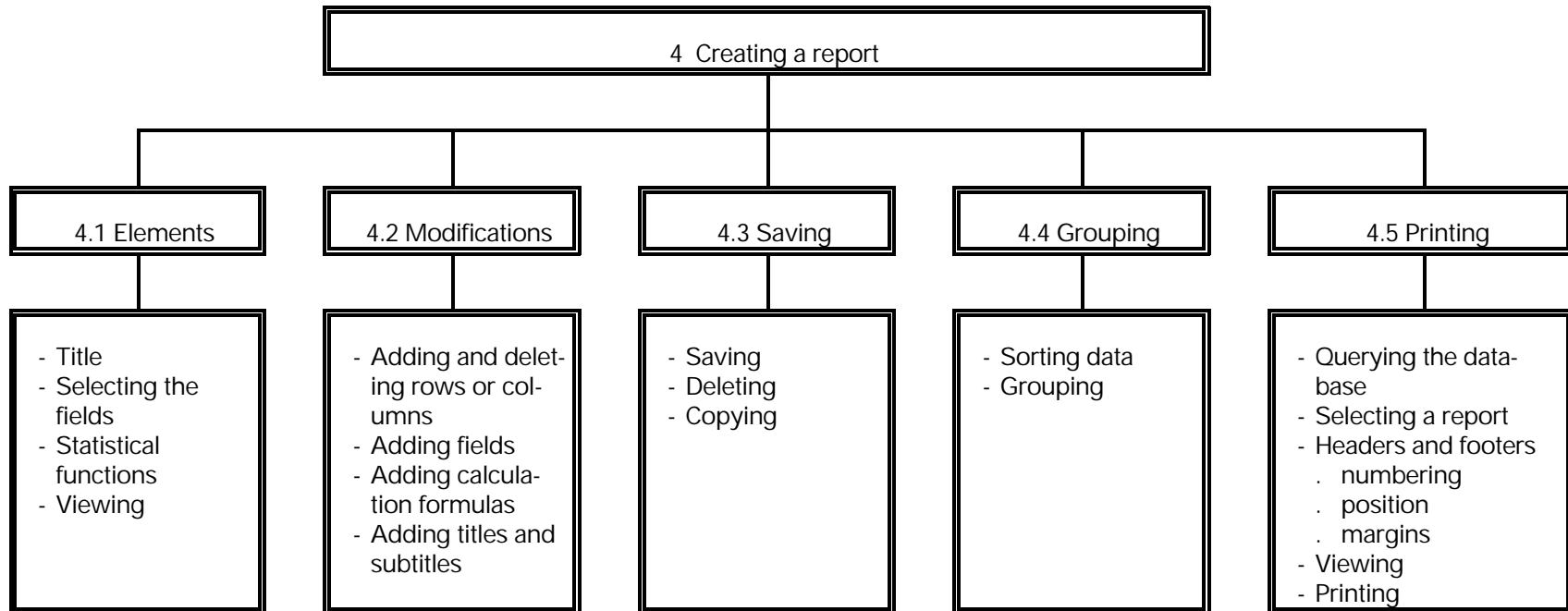
## TITLE: CREATING A DATABASE

TERMINAL OBJECTIVE: 4 To produce a report, based on a database.

INTERMEDIATE OBJECTIVES:

- 4.1 To know the main elements of a report.
- 4.2 To change a report using the add, delete, copy, move and format commands for a report.
- 4.3 To save a report by giving it a meaningful name.
- 4.4 To group information in a report.
- 4.5 To produce a report containing a specific selection of records, spread out over several numbered pages.

### RELATED CONTENT



**COMPUTER GRAPHICS**

## TITLE: COMPUTER GRAPHICS

LEVEL: Secondary IV

DURATION: 50 hours

NUMBER OF CREDITS: 2 credits

ORIENTATION OF THE COURSE: The *Computer Graphics* course enables adults to acquire the knowledge required for using a computer graphics program. The terminal objectives will be attained through practical exercises.

GENERAL OBJECTIVE: To acquire the minimum skills required for using a graphics program.

TERMINAL OBJECTIVES:

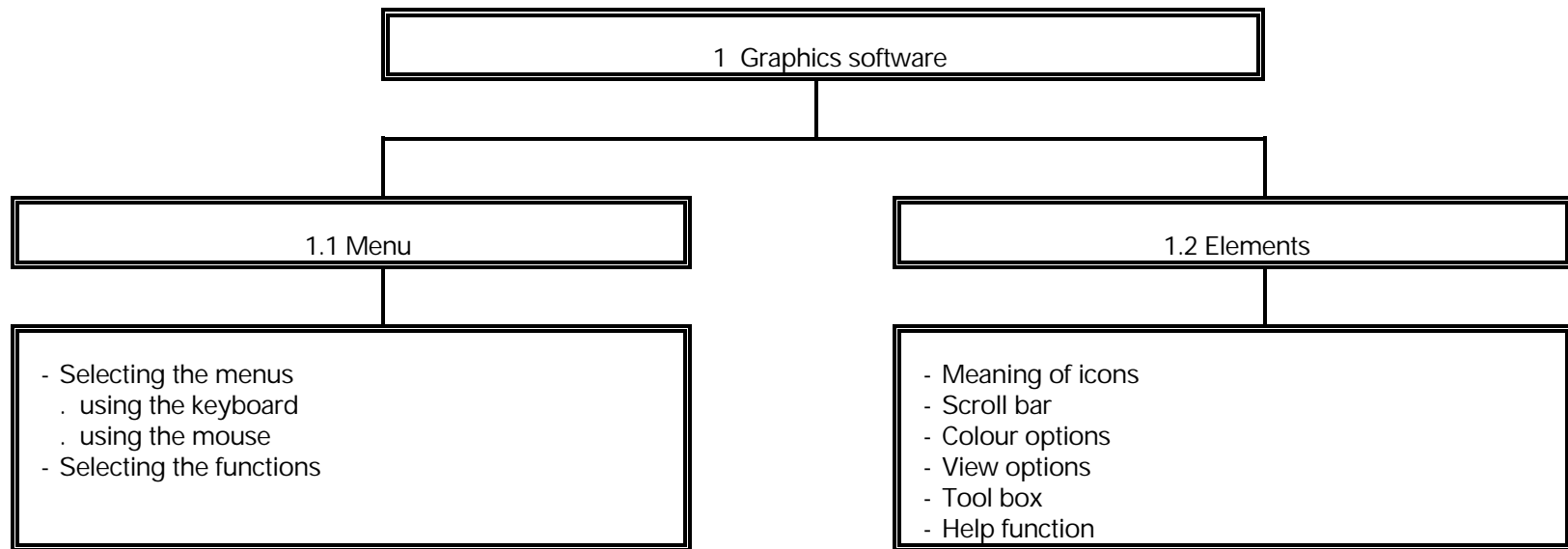
- 1) To know the different elements of a graphics program.
- 2) To create a drawing containing simple forms and text.
- 3) To change an image using the main functions of a graphics program.
- 4) To print a graphics assignment, taking into account the paper size and page orientation for printing.

## TITLE: COMPUTER GRAPHICS

TERMINAL OBJECTIVE: 1 To know the different elements of a graphics program.

INTERMEDIATE OBJECTIVES: 1.1 To select the different menus of a graphics program.  
1.2 To distinguish the main elements of a graphics program.

### RELATED CONTENT

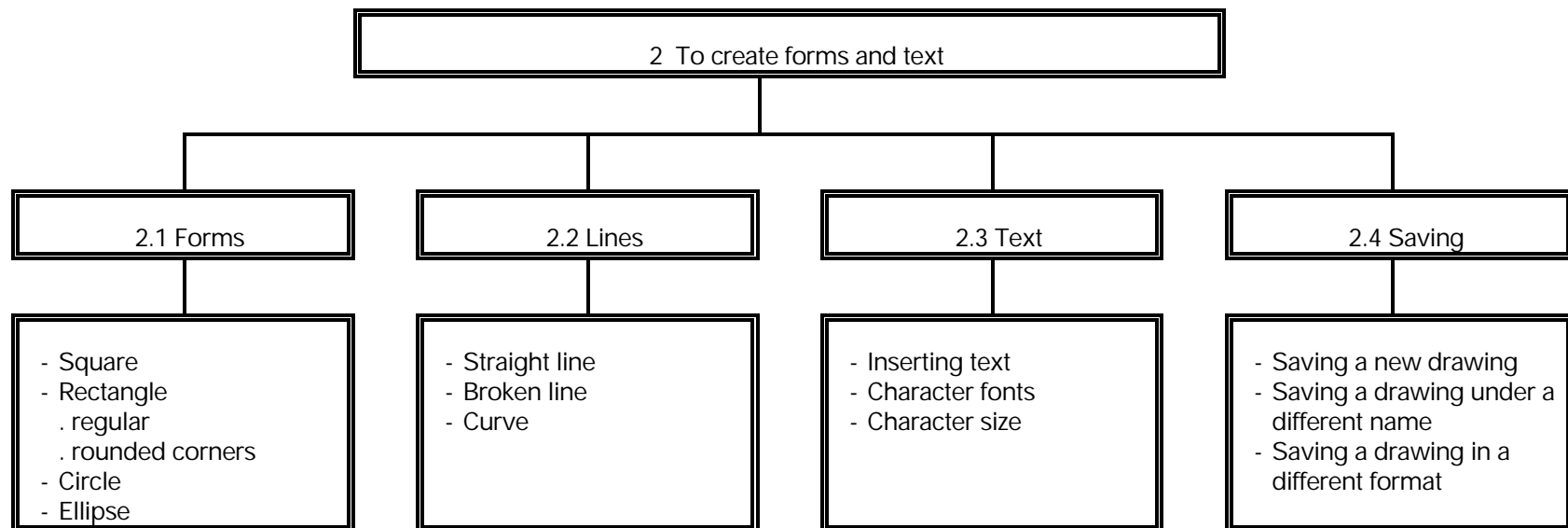


## TITLE: COMPUTER GRAPHICS

TERMINAL OBJECTIVE: 2 To create a drawing containing simple forms and text.

INTERMEDIATE OBJECTIVES: 2.1 To draw boxes, rectangles, circles and ellipses.  
2.2 To draw straight lines.  
2.3 To incorporate text into a drawing.  
2.4 To save a drawing.

### RELATED CONTENT

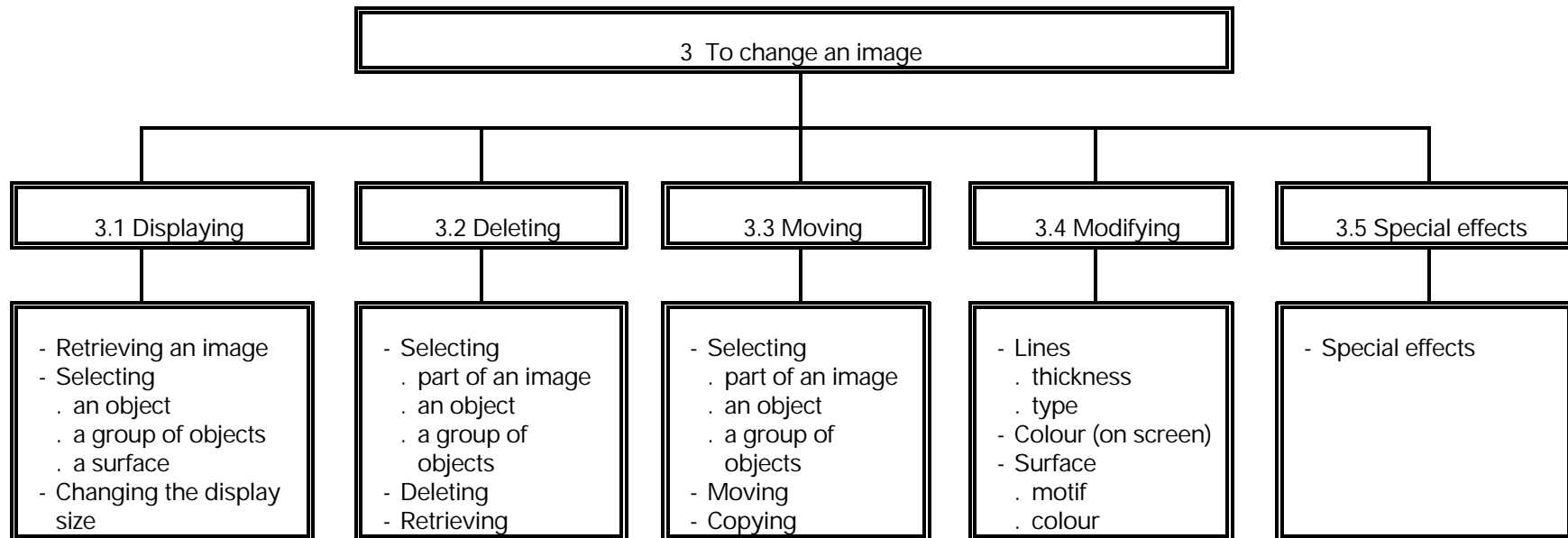


## TITLE: COMPUTER GRAPHICS

TERMINAL OBJECTIVE: 3 To change an image using the main functions of a graphics program.

INTERMEDIATE OBJECTIVES: 3.1 To use the different graphics display capabilities.  
3.2 To delete part of an image.  
3.3 To move objects contained in an image.  
3.4 To change the lines and colours of objects and forms on screen.  
3.5 To change an image using special effects.

### RELATED CONTENT

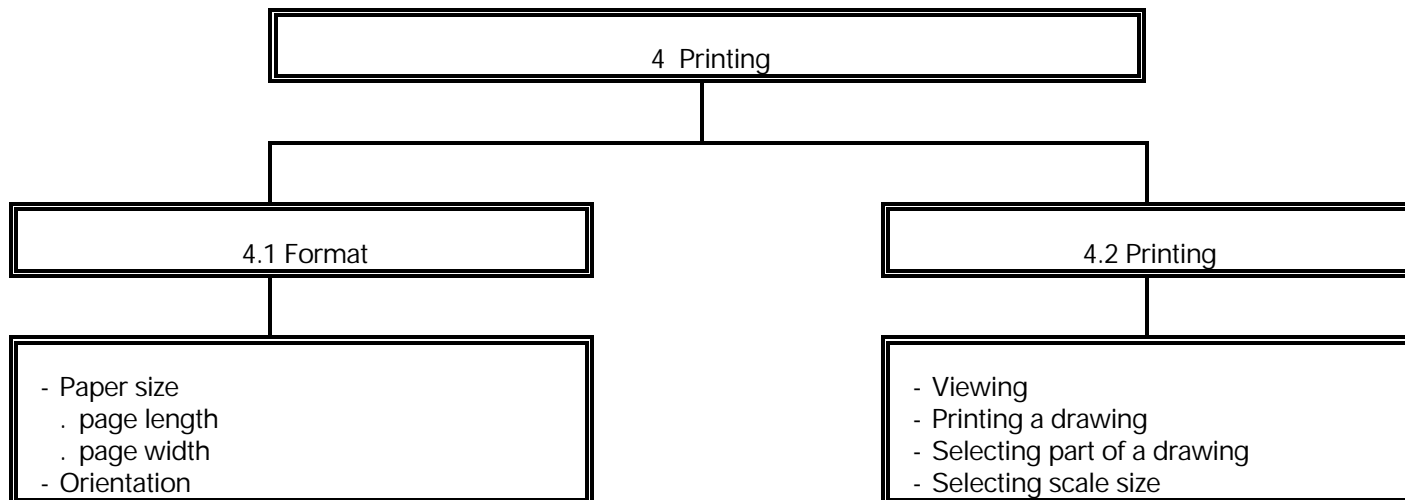


## TITLE: COMPUTER GRAPHICS

TERMINAL OBJECTIVE: 4 To print a graphics assignment, taking into account the paper size and page orientation for printing.

INTERMEDIATE OBJECTIVES: 4.1 To select a print format for a drawing.  
4.2 To print a graphics assignment.

### RELATED CONTENT



**COMPUTER PROGRAMMING**

## TITLE: COMPUTER PROGRAMMING

LEVEL: Secondary V

DURATION: 50 hours

NUMBER OF CREDITS: 2 credits

ORIENTATION OF THE COURSE: The *Computer Programming* course is designed to familiarize adults with the basic concepts related to computer programming. It involves analyzing the configuration of a simple problem in order to divide it into smaller elements, write the sequence of steps to be performed and encode each of the instructions in a programming language.

This course helps adults become autonomous in the use of a particular computer programming language by means of problem analysis and by applying the rules of file management.

GENERAL OBJECTIVE: To acquire the basic skills required for computer programming and for using a particular computer programming language.

TERMINAL OBJECTIVES:

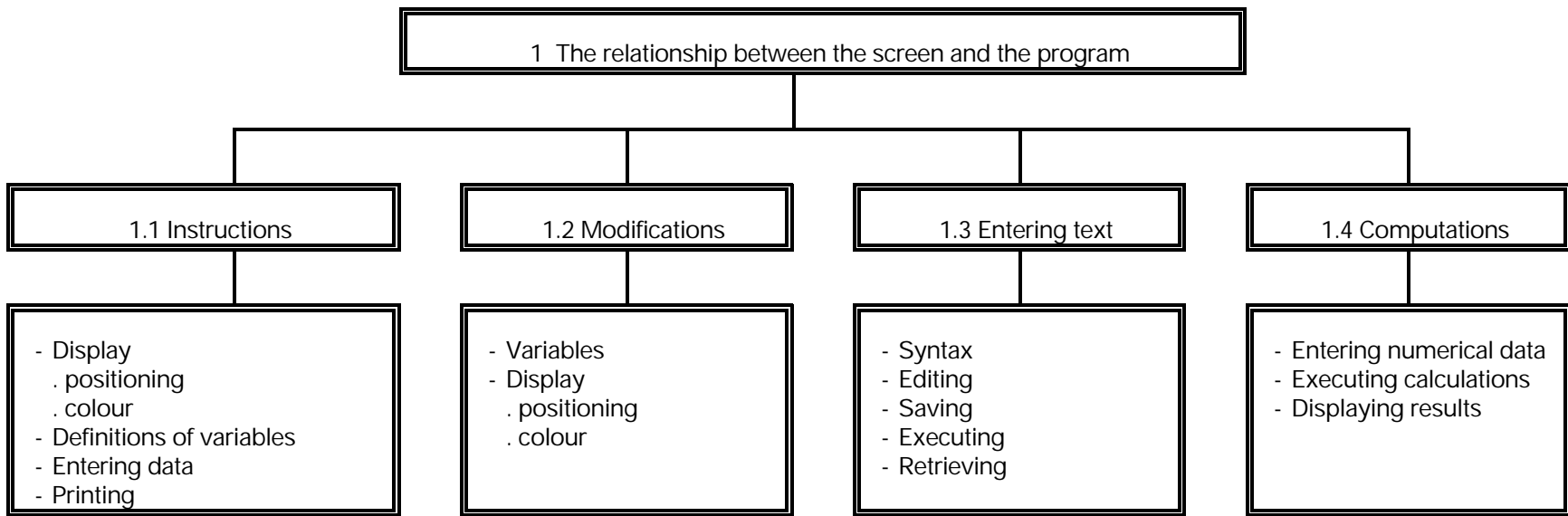
- 1) Using a given program, to establish the relationship between the program instructions and the results obtained on screen.
- 2) To understand the organization and algorithm of a computer program that includes at least one program loop.
- 3) To write a fully operational program designed to solve a given problem.

# TITLE: COMPUTER PROGRAMMING

TERMINAL OBJECTIVE: 1 Using a given program, to establish the relationship between the program instructions and the results obtained on screen.

- INTERMEDIATE OBJECTIVES:
- 1.1 To associate basic instructions with the results obtained.
  - 1.2 To describe the effects of a given change on the results of the program.
  - 1.3 To enter the text of instructions contained in a given program and to execute the program.
  - 1.4 To explain the operation of a simple computation program.

## RELATED CONTENT

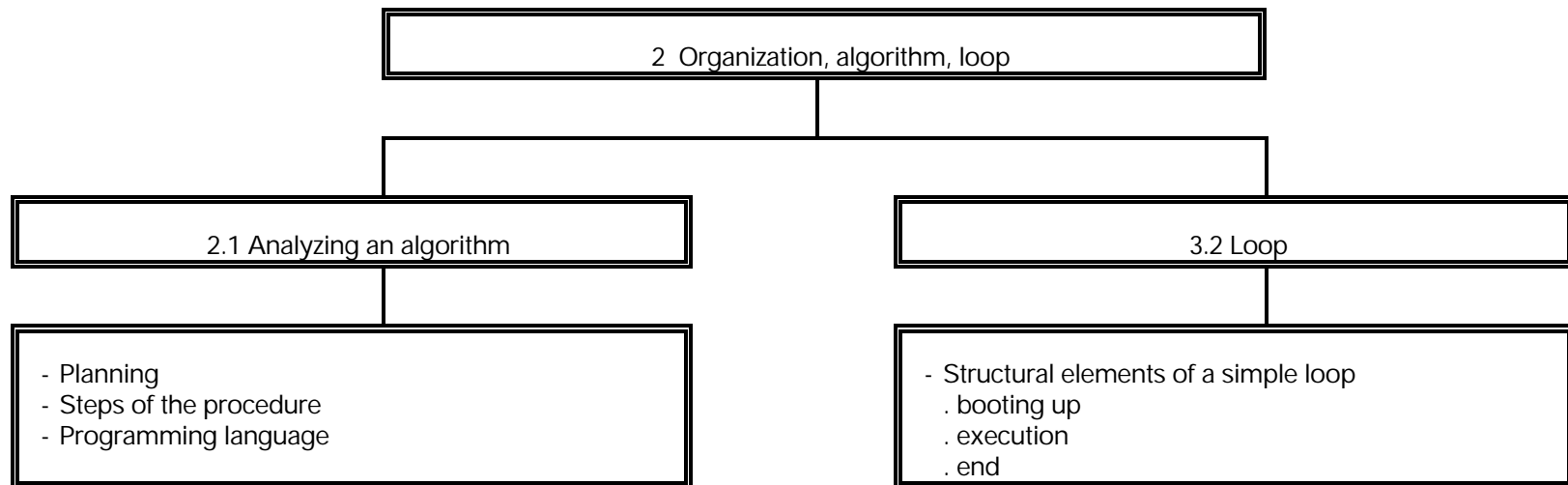


## TITLE: COMPUTER PROGRAMMING

TERMINAL OBJECTIVE: 2 To understand the organization and algorithm of a computer program that includes at least one program loop.

INTERMEDIATE OBJECTIVES: 2.1 To establish a correspondence between the elements of the algorithm and the instructions of a given program.  
2.2 To understand the basic principles of a program loop used in a simple yes or no response.

### RELATED CONTENT



## TITLE: COMPUTER PROGRAMMING

TERMINAL OBJECTIVE: 3 To write a fully operational program designed to solve a given problem.

INTERMEDIATE OBJECTIVES: 3.1 To develop an algorithm.  
3.2 To encode the program.  
3.3 To run the program.

**USING A NEW MICROCOMPUTING APPLICATION**

## TITLE: USING A NEW MICROCOMPUTING APPLICATION

LEVEL: Secondary V

DURATION: 50 hours

NUMBER OF CREDITS: 2 credits

ORIENTATION OF THE COURSE: The *Using a New Microcomputing Application* course enables adults to discover a new computing tool that was not dealt with in any of the other courses of the program. Furthermore, it is designed to help them broaden their sphere of knowledge of the numerous capabilities of microcomputing and to become autonomous in their methods of learning.

In *Using a New Microcomputing Application*, adults will be able to trace the latest developments related to microcomputing. The choice of topic may be varied and will be limited only by the availability of equipment at the different adult education centres. Possible topics include telecommunications, networks, voice and music applications, video and computer graphics, CD-ROMs and computer animation programs. The instructor will follow each step in the adult's learning process and provide support throughout the attainment of the objectives.

GENERAL OBJECTIVE: To acquire the skills required for using a new computing tool.

TERMINAL OBJECTIVES:

- 1) To know the application's main capabilities.
- 2) To use the procedures for loading and starting up the application.
- 3) To carry out an activity using the main functions of the application.

## TITLE: USING A NEW MICROCOMPUTING APPLICATION

TERMINAL OBJECTIVE: 1 To know the application's main capabilities.

INTERMEDIATE OBJECTIVES: 1.1 To determine the computing application to be used.  
1.2 To identify the application's main characteristics.  
1.3 To specify the computing objectives to be attained.

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TERMINAL OBJECTIVE: 2 To use the procedures for loading and starting up the application.

INTERMEDIATE OBJECTIVES: 2.1 To distinguish among different elements of the application.  
2.2 To carry out the procedures for booting up the system.  
2.3 To explore the application's different functions.

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TERMINAL OBJECTIVE: 3 To carry out an activity using the main functions of the application.

INTERMEDIATE OBJECTIVES: 3.1 To enter the information.  
3.2 Using the main functions, to process the information.  
3.3 To present the final results of the activity.

**ADVANCED  
MICROCOMPUTING APPLICATIONS**

## TITLE: ADVANCED MICROCOMPUTING APPLICATIONS

LEVEL: Secondary V

DURATION: 50 hours

NUMBER OF CREDITS: 2 credits

ORIENTATION OF THE COURSE: The *Advanced Microcomputing Applications* course offers adults the opportunity to expand their knowledge in a specific application field. The learning activities will be oriented towards furthering and enriching the knowledge and skills they have already acquired. Adults will be expected to identify and integrate the capabilities offered by a specific field of application, and to carry out an activity.

Possible topics for the course include using desktop publishing to produce a newsletter for the adult education centre, using advanced commands to develop a computer program, and using macro commands to automate a procedure. The instructor will follow each step of the activity and provide support throughout the attainment of the objectives.

GENERAL OBJECTIVE: To acquire the skills required for using the advanced functions of a computing application.

TERMINAL OBJECTIVES:

- 1) To analyze various advanced functions.
- 2) To use the different functions that were identified while carrying out an activity.

## TITLE: ADVANCED MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 1 To analyze various advanced functions.

INTERMEDIATE OBJECTIVES: 1.1 Using documentation and software, to identify various advanced functions.  
1.2 To describe the main characteristics of the functions identified.  
1.3 To specify the computing objectives to be attained.  
1.4 To use the functions identified.

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TERMINAL OBJECTIVE: 2 To use the different functions that were identified while carrying out an activity.

INTERMEDIATE OBJECTIVES: 2.1 To enter the information.  
2.2 To process the information.  
2.3 To present the final results of the activity.

**INTEGRATING DIFFERENT  
MICROCOMPUTING APPLICATIONS**

## TITLE: INTEGRATING DIFFERENT MICROCOMPUTING APPLICATIONS

LEVEL: Secondary V

DURATION: 50 hours

NUMBER OF CREDITS: 2 credits

ORIENTATION OF THE COURSE: The *Integrating Different Microcomputing Applications* course gives adults the opportunity to use more than one microcomputing application while carrying out an activity. Adults will be required to identify the possibilities for applying the knowledge they acquired in the other courses of the program to the objective of this course.

Possible topics for the course include using word processing for electronic mail, using the graphics capabilities of a spreadsheet program, a word-processing program and a graphics program to produce a class newsletter, or using a spreadsheet and a word-processing program to produce reports for a chemistry course. In addition to giving adults the opportunity to integrate different computing tools, this course encourages interaction between the Microcomputing program and the other general education programs in the adult sector. The instructor will follow each step of the activity and provide support throughout the attainment of the objectives.

GENERAL OBJECTIVE: To acquire the skills required for integrating more than one microcomputing application.

TERMINAL OBJECTIVE:

- 1) To select the applications.
- 2) To become familiar with the concepts associated with integrating applications.
- 3) To carry out an activity that integrates the selected applications.

## TITLE: INTEGRATING DIFFERENT MICROCOMPUTING APPLICATIONS

TERMINAL OBJECTIVE: 1 To analyze various advanced functions.

INTERMEDIATE OBJECTIVES: 1.1 Using documentation and software, to identify various advanced functions.  
1.2 To describe the main characteristics of the functions identified.  
1.3 To specify the computing objectives to be attained.  
1.4 To use the functions identified.

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TERMINAL OBJECTIVE: 2 To use the different functions that were identified while carrying out an activity.

INTERMEDIATE OBJECTIVES: 2.1 To enter the information.  
2.2 To process the information.  
2.3 To present the final results of the activity.

