



INFORMATICS

Basic Education
Grade Seven



Teacher's guide



Republic of Lebanon

Ministry of National Education, Youth and Sports

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Basic Education
Grade Seven

National Center for Educational Research and Development



General Coordinator
Nabil Constantine

The translation into English of this book was reviewed
and corrected by faculty members at the American
University of Beirut.

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... WE BUILD THROUGH EDUCATION

Four years ago, under the leadership of the Minister of National Education, Youth and Sports, the National Center for Educational Research and Development (NCERD) initiated the overall reform of the educational system in Lebanon. Today, NCERD is pleased to present the first collection of textbooks, developed in conformity with the new curricula announced by decree no. 10227, dated the 8th of May, 1997, to all those involved in the education sector.

This collection covers the first year of each of the three basic education cycles, as well as the first year of the secondary cycle. It will be followed, over the next two years, by the textbooks addressed to the remaining two years of each cycle.

The publication of these textbooks follows directly from previous steps undertaken as part of the overall effort to rebuild the educational system. The Plan for Educational Reform, the adoption of a new educational ladder, the new curricula and the new textbooks are all part of a continuous and coherent reform effort. The reform process views the education of the individual learner as a means to develop citizens capable of serving their country and self-confident adults ready to face the challenges of the twenty-first century.

Textbooks play an important role in this ambitious project because they embody the educational and civic objectives of the new curricula. In keeping with the spirit and philosophy of the new curricula, a large number of specialists who had contributed to shaping the new curricula were called upon, from both the private and the public sector, to become members of author committees. The Higher Committee for Planning and the Advisory Committee, which were created by NCERD to oversee the whole reform process, closely monitored the development of the new textbooks. In addition, NCERD sought the assistance of experts from outside Lebanon.

However, we do not claim that the textbook we present to you today is perfect, or that it does not require any revisions whatsoever. Our work is certainly far from complete. After thirty years of stagnation, it was important to act and to do so promptly. We thus considered it appropriate to view this first edition as a starting point and to subject the first collections to the classroom test. A textbook's strengths and weaknesses can really only be identified in the classroom. It is now

up to teachers and students to evaluate these new textbooks. Thanks to their collaboration, we should arrive at concrete proposals for the improvement of subsequent editions.

It should also be pointed out that textbooks have become only one of many available sources for the transfer of knowledge. Indeed, our students are confronted with a constant deluge of information from a variety of media. Consequently, it becomes imperative for students to "learn how to learn" from textbooks, as well as from other sources. This means that we must adopt new work and teaching strategies in order to transform the classroom into an interactive space between a dynamic and enterprising learner and an informed teacher. The teacher's role must lie in assisting the student to acquire knowledge and competencies, to heighten his or her critical sense and to develop teamwork and participatory skills. This is why the educational reform calls for teacher training, the establishment of a structure capable of advising teachers and providing guidance and counseling to students, and the modernization of the exam and evaluation systems to be undertaken alongside the development of new textbooks.

Our attention is now focussed on the next three years. This period will provide an experimental phase, not only for the new textbooks, but also for all the activities that have preceded or accompanied their launch. Thus, the next three years should be viewed as an evaluation phase for the overall educational system of Lebanon.

Finally, I wish to thank sincerely all those who contributed to writing, editing, designing and producing the new textbooks. We hope that our combined efforts to build the future for the children of Lebanon will contribute to the reconstruction of our country.

Beirut, July 22, 1998

President, NCERD
Mounir ABOU-ASSALI

Introduction

This set of books has been developed in line with the new plan launched by the *National Center for Educational Research and Development* for the modernization of the educational system. The plan calls for the introduction of computer courses starting with *Grade Seven* of the *Basic Education cycle*. This set is designed to serve the overall objectives of the new curriculum and the specific goals of this cycle.

The set is made up of a *Student's Book* and an accompanying *Teacher's Book* synchronized to follow closely the appropriate teaching process in the classroom. Each unit starts with a definition of the objectives and an outline of the methods to be followed in attaining them. The unit then specifically details the themes, procedures and techniques proposed for each lesson, and ends with an evaluation based on relevant practical and written exercises.

A lesson may take one period or more, leaving the allotment of time to the teacher based on the needs of the students.

Some units may appear familiar to the learners particularly if they own personal computers or have had access to computers. However, this will not be so starting with the third unit which covers programming with *Logo*. This is new and not very commonly used. In view of the importance we attach to teaching programming, particularly with *Logo*, at this stage, we have posed many questions designed to incite the learner to think, analyze and draw conclusions.

The *Teacher's Book* contains complete answers to all the questions posed in the *Student's Book* including all required explanations relating to certain application difficulties and possible means of resolving them.

It is our hope that we have succeeded in providing the student with a book that satisfies his/her scientific inquisitiveness, enhances his/her self-confidence and ability to learn and create, and the teacher with a guide to perform his work in the best possible manner.

Authors

Using This Book

Structure of a Lesson

Each lesson is structured into parts in such a way that each part corresponds to a function.

Introduction Part

The introduction as defined by its name, presents the students with what he/she will learn. The student will read it, and the instructor will use it to put the students in a state of awareness.

Activity Part

The student will learn to master the different tools and techniques through activities. An activity is dedicated toward the practice of each manipulation.

Note Part

Note part may include remarks related to manipulation, or references to units in relation to these notes.

Tip Part

It is a part that offers students various alternatives on how to perform a manipulation or an explanation to a track problem.

Know More

We have combined within this part new techniques that are related to the content of the lesson, allowing the student, who has the opportunity for more training, to increase his performances.

Summary Part

This part will help the student to memorize these manipulation techniques and to find them if need be.

Sparky

Sparky, the character that accompanies the students in their book is used to guide them to explore new information.

Table of Contents

<i>Themes</i>	<i>Title of the lesson</i>	<i>Page</i>
• Computer Components		
<i>Lesson 1</i>	First Encounter with Computers	13
<i>Lesson 2</i>	Inside the Computer Case	15
	Evaluation	19
• Operating System		
<i>Lesson 3</i>	First Steps in the Operating System	23
<i>Lesson 4</i>	Manipulating the Windows	25
<i>Lesson 5</i>	Files and Folders	26
<i>Lesson 6</i>	Manipulating Files and Folders	28
	Evaluation	29
• Programming in Logo		
<i>Lesson 7</i>	Primitives Interaction with the Turtle	38
<i>Lesson 8</i>	More Primitives Interaction with the Turtle	44
<i>Lesson 9</i>	Repetition Instruction	48
<i>Lesson 10</i>	Embedded Loops Saving and Printing Logo Drawings	51
<i>Lesson 11</i>	Screen and Turtle Control	56
<i>Lesson 12</i>	Procedures and Subprocedures -The Logo Building Block	60
<i>Lesson 13</i>	Loading and Editing Procedures	64
<i>Lesson 14</i>	Managing Procedures - The Editor	70
<i>Lesson 15</i>	The Turtle Knows Arithmetic	73
<i>Lesson 16</i>	Drawing in Colors	77
<i>Lesson 17</i>	Putting Color in Drawings	81
	Evaluation	85
• Word Processing		
<i>Lesson 18</i>	Starting Word Processing	128
<i>Lesson 19</i>	Verifying Documents	130
<i>Lesson 20</i>	Formatting a Text	131
<i>Lesson 21</i>	More Formatting	132
<i>Lesson 22</i>	More Editing - Printing Document.	133
<i>Lesson 23</i>	Inserting Pictures	134
<i>Lesson 24</i>	Editing a Picture	135
<i>Lesson 25</i>	Review Projects	136
	Evaluation	137
• Computer Graphics		
<i>Lesson 26</i>	Starting Computer Graphics	143
<i>Lesson 27</i>	Developing a Painting	145
<i>Lesson 28</i>	Regular Geometric Shapes	147
<i>Lesson 29</i>	Printing Pictures	149
	Evaluation	151