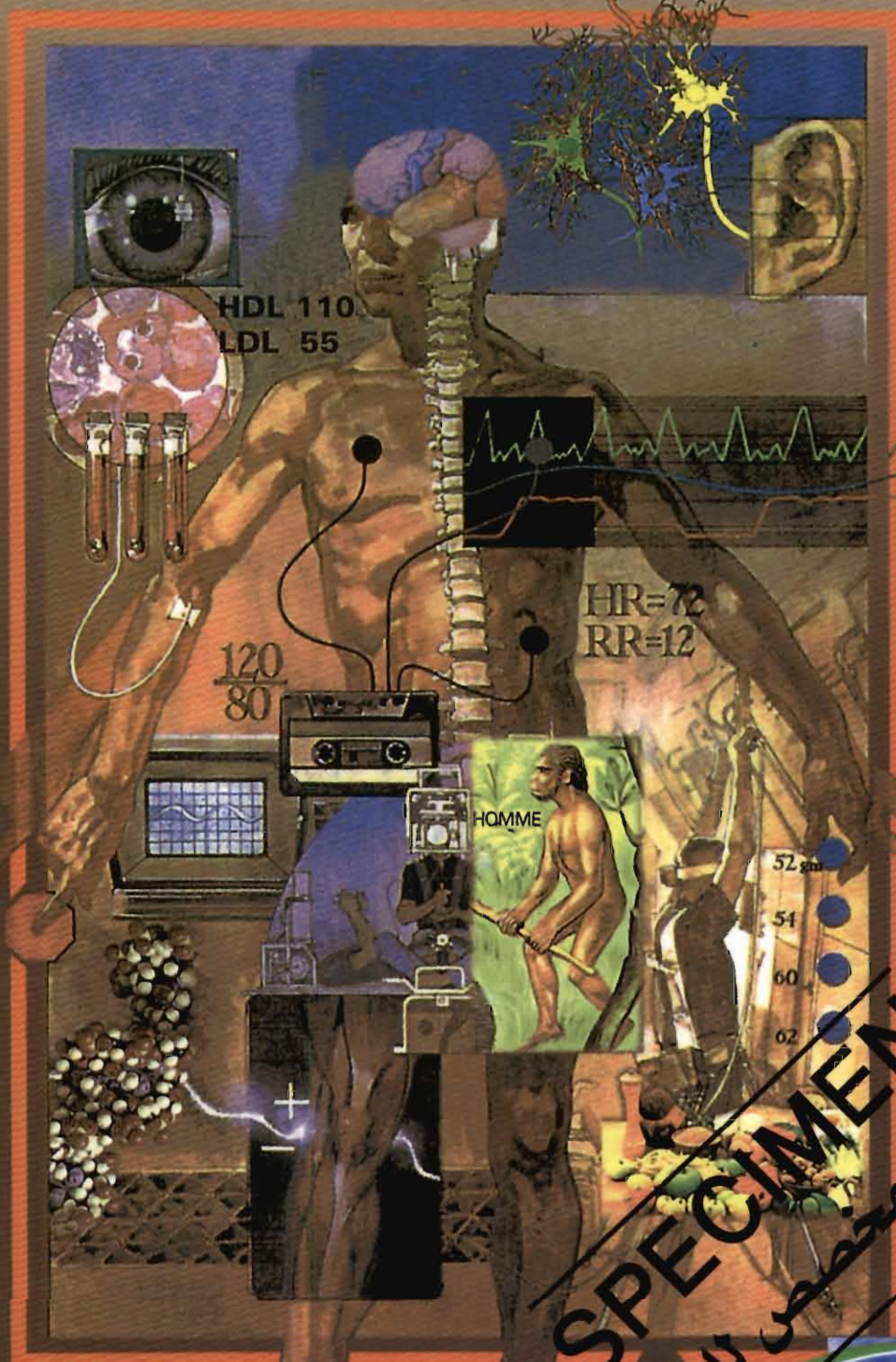


# Life

Secondary Education  
Third Year  
Literature and Humanities  
Sociology and Economics Sections

# Science



**SPECIMEN**

عبد المصطفى بن سبيح

Center for Educational Research and Development



National  
Textbook  
New Curricula

# Republic of Lebanon

Ministry of National Education, Youth and Sports

## LIFE SCIENCE

### Secondary Education

Third Year

Sections: Literature and Humanities  
Sociology and Economics

Educational Center for Research and Development



National  
Textbook

New Curricula



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# LIFE SCIENCE

## **Secondary Education**

Third Year

Sections: Literature and Humanities  
Sociology and Economics

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# The National Textbook Project

By issuing the textbooks for the third year of each educational cycle, the Educational Center for Research and Development will have completed the third and last installment of books called for by the New Curricula. We are placing these books in the hands of students with the great hope that we are moving, step by step, toward the goal of acquiring sound learning, using sophisticated educational means and up-to-date methodology that encourage and reinforce individual thinking and research, acquisition of skills, development of ethical and national attitudes, the feeling of national belonging as well as the feeling of belonging to humanity at large.

The on-going revolution in information, communication and educational-aids technology has undoubtedly limited the role of the textbook and lowered the rank it used so recently to occupy. However, in our society and in many other societies, the textbook remains the basic means of education, and it is our duty to exert our utmost effort and care to come up with the best product as to form and content. Yet we should not lose sight of the fact that the textbook is not sufficient by itself but should rather be used as a stepping stone to access other sources of information. What is important is to keep a clear vision and maintain the right course toward our objective. The means should not turn into the end and the student should always remain the focus of the learning/teaching process.

No one ignores or denies the fact that textbook writing requires very high academic and educational qualifications and very wide field experience. The authors committees undeniably possess such qualities. Yet the textbooks of the last two years contained some negative aspects. Such is the nature of human work, no matter how good the intentions or how great the effort extended. Here constructive criticism constitutes a real contribution to raising the standard of authorship, minimizing errors and filling gaps. We say that, with all due appreciation and respect to all those who have contributed to the success of this project.

The Educational Center for Research and Development is embarking this year on a process of evaluating the New Curricula and related textbooks, teacher training courses and student achievement. This is a natural and necessary step now that the new system has been put into effect. This process aims at identifying the curricular objectives that have been achieved as well as those that have not been achieved, with a view to proceeding with the positive aspects and correcting the negative ones.

As part of this correction process, we plan to review the versions that have been issued in order to secure good textbooks for our students, who always deserve the best.

**March 13, 2000**

**President, Educational Center for  
Research and Development**

**Nemer FRAYHA**



# Forword

Dear students,

The phenomenon that marked our era the most, has been the extraordinary acceleration of the evolution of sciences and technologies. We have tried to provide you with the necessary basics and learning tools to help you stay focused and acquire the knowledge required for your continuing education.

- In last year's curriculum you studied several subjects covering the fields of reproduction, heredity, immunology and health.

- This year, the following themes are covered :

- health and nutrition,
- neurobiology, human behavior and health,
- theories of evolution,
- biotechnology (Sociology and Economics section only).

All the above themes will contribute to your knowledge of the functions of the human body and its surrounding environment as well as the interaction between them.

- You learned in the second year to exploit themes in the form of documents with a global approach but without going into details. You should be familiar with our method and we hope that it was easy to grasp.

- The presentation of this year's manual has not changed, but we have on the other hand enriched each of its documents with supplementary exploitation questions and we have added a summary of the essential points at the end of each chapter.

You should always be aware, alert and willing to understand what goes on inside and outside your body. Be curious, have a critical mind, try to understand how science is processing. Learn how to preserve your health and do not ignore how things evolve around you.

Good luck !

*The authors*



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