

Physics

Secondary
Education
Second Year
Humanities Section



SPECIMEN
نمونه

Center for Educational Research and Development



National
Textbook

New Curricula

Republic of Lebanon

Ministry of National Education, Youth and Sports

PHYSICS

Secondary Education

Second Year

Humanities Section

Center for Educational Research and Development



National
Textbook

New Curricula

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PHYSICS



Secondary Education
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The National Textbook Project

This is the second installment of textbooks completed by the Center as part of a three-stage effort to produce the 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 and modern learning, using sophisticated educational means and up-to-date methodology that encourage and reinforce individual thinking and research, the acquisition of skills, the 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 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 qualifications and qualities, yet last year's textbooks did contain some faults and gaps which were duly pointed out by researchers in many articles, and, indeed, we have benefited from some of them. Such is the nature of human work, no matter how good the intentions or how great the effort exerted.

Constructive criticism is a real contribution to raising the standard of authorship, minimizing errors and filling gaps. We only hope that criticism will always be objective and motivated by a desire to enhance educational reform in order to achieve better products.

A favorite adage handed down from our old scholars: "He who criticizes you is as helpful as a co-author". Let all criticism directed at the Center be of this caliber.

In closing, we hope that we all will have benefited from our experience and that the textbooks of the third and final stage be closer to realizing our hopes and more beneficial to our students. We are now preparing ourselves to assess the parts so far achieved of the new curricula and to assure that our educational movement is proceeding on the right track for achieving the best results.

June 2, 1999

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

Preface

The world, we are living in, is changing rapidly and continuously. In order to be able to keep up to date with what is going around us, a proper use of the media, at all levels, is a necessity. However, for students, the book is still a basic mean to start with. Because of the demands of changing physics curricula, it has been necessary to introduce this book as a part of the scientific literacy course suggested by the educational board and the new Lebanese physics curriculum.

This book consists of the main parts: Electricity, Optics, and Sound. Each part consists of four chapters and each chapter, contains the following:

Objectives for teaching the chapter, listed at its beginning

Activity to be performed by the student or the teacher.

Questions and exercises that give the student an opportunity to apply some of his/her knowledge.

Reading that enwidens the scope of the student and serve as a general knowledge.

All of this helps the learner, to take relatively safe decisions at various stages of his life.

We hope that this book serves as a primary worksheet, useful as a starting point, to achieve in the near future, a better textbook, by constructive criticism needed for the development of the scientific literacy course in order to serve the purpose for which it was suggested.

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