Physics

Secondary Education
First year
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Secondary Education
First year

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Together We Build Through Education!

The Center for Educational Research and Development (CERD) has embarked on an extensive workshop for assessing and developing the educational framework and curricula which have been placed into effect more than three years ago. With full realization of the fact that the educational cycle must continue normally through its components, and until the development process attains its aspired objectives, we are placing in the hands of students, teachers and directors of public schools, this corrected version of textbooks issued by CERD as part of the National Textbook Series.

This version is an interim stage incorporating the corrected typographical and linguistic errors discovered by CERD specialists as well as teachers and students through their daily dealings with the books. The process of assessment and development of the framework and curricula will take into consideration all the comments that have been made, or will be made, in this regard.

It is expected that once the curricula are developed and aligned with the general and specific objectives set for them, the textbooks will be realigned with the new curricular and framework requirements, including tying the content of a course to the number of teaching hours set for it during the school year, taking into consideration vertical alignment within the same course as well as the horizontal alignment with the rest of the courses.

I take this opportunity to invite all school administrators, teachers and students and all officials concerned in public and private schools alike, to promptly send their comments on these curricula and books as their contribution to enrichment of this momentous national process.

This workshop, which was launched under the kind sponsorship of His Excellency the Minister of Education and Higher Education in implementation of Decree No. 10227 embodying the educational curricula and their objectives, fits in with CERD’s proclaimed new motto “Together We Build Through Education”.

It is our earnest desire to see this national, all-inclusive workshop attracting the greatest amount of interest and participation to define the safest and soundest educational options that directly affect our children, as we vow to continually modernize education and develop its ways and means to keep abreast of modern developments and progress in science and technology.

Dr. Leila MALEEHA
President CERD
This is based on the requirements of the new Lebanese physics curriculum. It consists of four parts: electricity, waves, optics, and mechanics. Each part consists of a number of chapters, each of which contains the following:

- **Objectives** for teaching the chapter, listed at its beginning.

- **Experiments** to be performed by the student or the teacher. Their results lead to physical laws.

- **Questions** and **examples** inserted at various points in the text.

- A **summary** of the main ideas to be mastered by the student.

- **Test-your-knowledge** type questions that check the student's acquisition of the basic contents of each chapter.

- Open qualitative **questions** that may summons, through class discussions, the different intellectual abilities of the student.

- **Problems** that give the student the opportunity to apply the knowledge acquired from the chapter to concrete situations.

- Notes and **historical background** readings are introduced, whenever appropriate, to help the student understand that scientists of different cultural backgrounds have gradually developed science over the years.

We hope that this book is easy to use and effectively serves the purpose for which it was designed.
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