

# APPENDIX B

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*Physics 11 and 12  
Grade Collections*



## APPENDIX B: PHYSICS 11 AND 12 • *Grade Collections*

### PHYSICS 11 AND 12 : GRADE COLLECTIONS

This section begins with an overview of the comprehensive resources for this curriculum, then presents Grade Collection charts for each grade. These charts list both *comprehensive* and *additional* resources for each curriculum organizer for the grade. The charts are followed by an annotated bibliography. Teachers should check with suppliers for complete and up-to-date ordering information. Most suppliers maintain web sites that are easy to access.

### MEDIA ICONS KEY



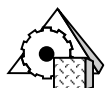
***Audio Cassette***



***CD-ROM***



***Film***



***Games/Manipulatives***



***Laserdisc/Videodisc***



***Multimedia***



***Music CD***



***Print Materials***



***Record***



***Slides***



***Software***



***Video***

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### PHYSICS 11 AND 12 GRADE COLLECTIONS OVERVIEW OF COMPREHENSIVE RESOURCES

- *Fundamentals of Physics, Combined Edition* (Martindale et al.) (Grade 11)

This resource package comprises a 937-page hardcover student book and a 555-page loose-leaf teacher's manual. The student book combines text, photographs, and graphics with laboratory investigation, examples, sample problems, and chapter review problems. The teacher's manual contains notes correlated with *Physics: Cinema Classics*, which is also recommended.

- *Glencoe Physics: Principles and Problems* (Zitzewitz) (Grade 11)

This introductory American program consists of a student text, a teacher's wraparound edition, *Advanced Concepts in Physics*, and a Problems and Solutions Manual. Student text combines textual information, colour visuals, laboratory investigation, chapter reviews and application of physics concepts to real life. The teacher's wraparound edition provides teaching strategies, reference to program resources and answers to exercises and pocket labs. *Advanced Concepts in Physics* provides lessons on "Special Relativity" which is not covered in the student text. The Problems and Solutions Manual contains all solutions and answers to every problem in the student text.

- *McGraw-Hill Ryerson Physics* (Grade 11)

This is a well-organized, user-friendly resource. The teacher's resource section has unit plan organization for each unit and an extensive set of chapter notes and additional

resource list, and some challenge projects. The blackline masters section provides additional questions in the form of worksheets, as well as chapter tests and keys. Goals are stated for each chapter. Additionally, there are unit planning charts that allow teachers to plan lessons and units in advance. Assessment checklist masters are provided for student/teacher input.

- *Merrill Physics: Principles and Problems, Canadian Edition* (Zitzewitz) (Grade 11)

Canadian introductory physics text helps relate physics to the everyday world. It combines textual information, colour visuals, laboratory investigation, chapter reviews and application of physics concepts to real life. Each chapter review includes a summary of ideas, vocabulary list, conceptual applications, quantitative problems to solve and extension activities. The text concludes with a nine-part appendix, problem solutions, glossary of items and an index. The most recent American version of this text is *Glencoe Physics: Principles and Problems*.

- *Physics: Algebra/Trig, Second Edition* (Hecht) (Grade 12)

This program consists of a hardcover student text with enclosed CD-ROM, a student solutions manual, an instructor's solutions manual and a variety of ancillary components. All information is well written and explained, although at times lengthy. Resource makes good use of every-day examples and applications. The program emphasizes how things work and uses the connection between symmetry puzzles and conservation law as a unifying theme to order the subject of physics and to help students

understand physics as more than a series of topics. The student text combines textual information, colour photographs, graphics and many example problems. Each chapter contains a summary of core material, suggestions for problem solving, discussion topics, multiple-choice questions and review problems at three different levels of difficulty. The text concludes with a five-part appendix. The CD-ROM provides enrichment and interactive problem solving. It also provides some coverage for the topic of gravitational potential energy. The student solutions manual is designed to assist the student to work independently to master the material presented in the text. The instructor's solutions manual includes solutions to all conceptual and quantitative problems.

- *Physics: Principles with Applications, Sixth Edition* (Giancoli) (Grade 12)

This resource package, including a student textbook, instructor's manual, and study guide, presents basic concepts of algebra-based physics. This edition replaces *Physics: Principles With Applications, Fifth Edition*. New to this edition are new exercises for student practice; new applications such as digital cameras, CCD, LCD, RC circuits, laser printers; vector arrows over bold face letters denoting a vector, in text and in art; clearer page layout, with content divided into subsections; step-by-step worked-out examples, and new supplements. The student book combines textual information, colour photographs and graphics, example problems, and student questions and problems. Each chapter contains several sections, with important concepts keyed in the margin, and examples of numerical problems and solutions. Problem-solving strategies and tables and charts are highlighted and inserted throughout the text.

Many chapters contain optional sections with applications to other disciplines. Each chapter ends with a summary, questions, and problems grouped by chapter section and difficulty level, and general problems that integrate several previous concepts. The text concludes with a mathematical review, dimensional analysis, Gauss's Law, Galilean and Lorentz transformations, selected isotopes, answers to odd-numbered problems, and an index. Also included in each chapter are "Conceptual Examples" and "Estimations Examples with Solutions." "Content Specific Problem Solving Strategies" are included in selected chapters.

- *Physics, Sixth Edition* (Cutnell & Johnson) (Grade 12)

This American resource consists of a text, student study guide, and student solutions manual. It is designed to help students develop conceptual understanding and use it to solve problems. Ancillary components are also available. In the new sixth edition, print and on-line material were added, as well as additional resources for both the instructor and the student. The student text combines textual information, colour visuals, conceptual flow charts, chapter reviews and conceptual and quantitative problem sets.