Record Nr. UNINA9910149450903321 The go-to guide for engineering curricula, grades 6-8: choosing and **Titolo** using the best instructional materials for your students // Cary I. Sneider London:,: SAGE Publications, Ltd,, 2015 Pubbl/distr/stampa **ISBN** 1-4833-5351-6 1-4833-8573-6 1-4833-8634-1 1-4833-8633-3 Descrizione fisica 1 online resource (223 pages): illustrations Disciplina 620.0023 Engineering - Study and teaching (Middle school) - United States Soggetti Science - Study and teaching (Middle school) - United States Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Sommario/riassunto For many science teachers the integration of technology and engineering into the science curriculum will mean a new way of

For many science teachers the integration of technology and engineering into the science curriculum will mean a new way of teaching, new concepts and skills for their students to learn, and new assessments that will measure their students' progress and their own capabilities as teachers. The source of this concern is a publication by the National Research Council of a new blueprint for science education standards, appropriately titled A Framework for K-12 Science Education: Practices, Core Ideas and Crosscutting Concepts (NRC 2012). The Framework is currently severing as the blueprint for Next Generation Science Standards, aimed at replacing the current patchwork of state science standards with a common core, as has already been done in mathematics and English language arts. Since these documents raise engineering design to the same level as science inquiry there is no question that science teachers will be required to teach technology and engineering alongside science. This book is intended to help middle school teachers by assembling, under a single

cover, a comprehensive commentary on the readymade curriculum materials that are currently on the market for integrating Technology and Engineering into Science classes, and that are appropriate for different levels of the 6-8 spectrum. All of the curricula summarized in this book have been under development for several years, tested by teachers and their students from a wide range of communities, and revised based on feedback. In many cases they are also supported by research studies of effectiveness. Each chapter looks closely at a specific curriculum and describes one set of instructional materials from this curriculum. Chapter authors illustrate, as vividly as possible, what the curriculum looks like in the classroom, what learning goals it is intended to accomplish, and how it will help Middle school teachers address the Next Generation Science Standards. Also included is a helpful table, which lists each of the curriculum materials included in the book and grade level for which it is intended. Readers who are already familiar with the Framework and Next Generation Science Standards, and are mostly concerned with choosing curricula for a given grade or grade span can use the table to find the chapters that are most relevant to their needs. Readers who would like to know how technology and engineering are being integrated in the new standards, and why it will make a difference this time around-will find answers to these questions in the remainder of this introduction.