

INSTRUCTIONAL MATERIALS PUBLISHERS

Bid Item

Course: Physics 1 (2003380)
Title: HMH Florida Physics , Edition: First
Copyright: 2019
Author: Serway, et al
Grade Level: 9 - 12

Publisher Questionnaire

AUTHORS & CREDENTIALS: LIST FULL NAME OF AUTHOR(S), WITH MAJOR OR SENIOR AUTHOR LISTED FIRST. BRIEFLY PROVIDE CREDENTIALS FOR EACH AUTHOR.

Raymond Serway, Ph.D. Dr. Raymond Serway, Professor Emeritus at James Madison University, began his teaching career at Clarkson University, where he conducted research and taught from 1967 to 1980. He was the recipient of the Distinguished Teaching Award at Clarkson University in 1977 and the Alumni Achievement Award from Utica College in 1985. As Guest Scientist at the IBM Research Laboratory in Zurich, Switzerland, he worked with K. Alex Müller, 1987 Nobel Prize recipient. Dr. Serway also was a visiting scientist at Argonne National Laboratory, where he collaborated with his mentor and friend, Sam Marshall. In 1990, he received the Madison Scholar Award at James Madison University, where he taught for 17 years. Dr. Serway is the co-author of numerous physics textbooks; he has published more than 40 research papers in the field of condensed matter physics; and he has given more than 60 presentations at professional meetings. Dr. Serway received his doctorate at Illinois Institute of Technology. Jerry Faughn, Ph.D. Dr. Jerry Faughn, Professor Emeritus and former Chair of the Department of Physics and Astronomy at Eastern Kentucky University, has taught courses ranging from the lower division to the graduate level, but his primary interest is in students just beginning to learn physics. Dr. Faughn has been director of a number of NSF and state grants, many of which were devoted to the improvement of physics education. He has written a non-mathematical physics text and a physical science text for general education college-level courses. He has also co-authored an algebra-trigonometry-based textbook for introductory-level college physics courses, as well as a microprocessor-interfacing text for upper-division physics students. His research interests include computer interfacing and sound absorption in low-pressure gases. Dr. Faughn earned his doctorate at the University of Mississippi.

STUDENTS: DESCRIBE THE TYPE(S) OF STUDENTS FOR WHICH THIS SUBMISSION IS INTENDED.

HMH Florida Physics © 2018 is a core science curriculum designed for all learners in the high school general education setting, including those who perform on grade level, below grade level, and above grade level, as well as English Language Learners.

1. LIST THE FLORIDA DISTRICTS IN WHICH THIS PROGRAM HAS BEEN PILOTED IN THE LAST EIGHTEEN MONTHS.

Not Applicable

2. HOW ARE YOUR DIGITAL MATERIALS SEARCHABLE BY FLORIDA STATE STANDARDS (SECTION 1006.33(1)(E), FLORIDA STATUTES)?

HMH Florida Physics is a comprehensive science curriculum designed specifically for Florida. Built to meet 100% of the Next Generation Sunshine State Standards (NGSSS), HMH Florida Physics delivers unparalleled learning experiences shaped by the Big Ideas of the NGSSS. Full-text standards correlations and standards citations are provided in the print and digital Teacher Edition, Student Edition, print and digital lesson planning tools, and online assessment reports. With this Florida-specific curriculum, teachers can easily and quickly track standards coverage and progression – the information is already organized into the HMH Florida Physics print and digital materials.

3. IDENTIFY AND DESCRIBE THE COMPONENTS OF THE MAJOR TOOL. The Major Tool is comprised of the items necessary to meet the standards and requirements of the category for which it is designed and submitted. As part of this section, include a description of the educational approach of the submission.

Educational Approach (The information provided here will be used in the instructional materials catalog in the case of adoption of the program. Please limit your response to 500 words or less.)

HMH Florida Physics is a comprehensive algebra-based physics curriculum designed specifically for Florida. Built to meet 100% of the Next Generation Sunshine State Standards (NGSSS), HMH Florida Physics delivers unparalleled learning experiences shaped by the Big Ideas of the NGSSS. With inquiry, critical thinking, and problem-solving as its framework, HMH Florida Physics raises levels of involvement and interest through HTML5-formatted interactive texts, dynamic resources, and a mixture of hands-on and virtual learning experiences. The HMH Florida Physics program's diverse print and digital materials deliver a superior blend of conceptual physics and problem-solving instruction and application. The content of the HMH Florida Physics program presents inquiry-based learning experiences that spark curiosity and actively engage students in the excitement of STEM. For example, the Think Science feature in every chapter promotes high-level scientific thinking and develops students' abilities to think like and observe the world as scientists. Components such as STEM: Why It Matters, let students know why the content is important and

how it connects to the real world. The program's labs put students at the center of the action, and they strengthen their conceptual understanding through hands-on and virtual labs. Students' critical-thinking and problem-solving skills are continuously exercised in the HMH Florida Physics program. The Florida Standards Guide provides supplemental student activities that directly address each of the Florida standards for physics. With fresh activities in the Engineering Design Guide, students actively engage in the Engineering Design Process and the Disciplinary Core Idea (DCIs), Science and Engineering Practices (SEPs), and Crosscutting Concepts (CCCs). Integration of the three dimensions is especially evident in the labs component. Along with the program's suite of traditional hands-on labs, students can experience labs that they may not be able to under normal classroom conditions. The HMH Florida Physics program's Virtual Labs give students a state-of-the-art virtual lab experience, without any need for materials, set-up, or advance planning. Students can play and replay the Virtual Labs, simulations, and animations at their own pace to enhance their comprehension. All of the program's labs are organized by chapter, available online, and editable. Students develop enhanced conceptual understanding through the HMH Florida Physics program's multiple representations of the content. They connect to the captivating narrative that capitalizes on real-world scenarios, while vibrant visuals and animations like Animated Physics, Teaching Visuals, and PhET Simulations bring concepts to life. Each chapter also includes an Interactive Concept Map, which challenges students to complete an interactive advanced organizer that shows the connections among the concepts covered. Support for problem-solving is also built into the HMH Florida Physics program, with components such as the Solution Tutor and Interactive Demonstrations. These components provide step-by-step guidance for solving problems, tips and strategies, and interactive practice opportunities. Problem-solving skills are further reinforced with the program's bank of Sample Problem Sets and the Graphing Calculator Activities. HMH Florida Physics leads students to deep conceptual understanding of physics and prepares them for college and careers. Exploration, engagement, and curiosity continue with dynamic components such as Google Expeditions virtual reality field trips, On the Job STEM career-related videos, and Thing Explainer comic strips by Randall Munroe of xkcd webcomics fame. These features of HMH Florida Physics not only spark discussions, they also inspire students on their path to college and careers. The program includes superior levels of reading support, as well as challenging Pre-AP activities, so all learners can have meaningful and successful connections with the core content.

Major Tool - Student Components Describe each of the components, including a format description.

Student Edition • Student Edition: Print edition: The HMH Florida Physics print Student Edition is well-organized, visually appealing, and easily portable. This core text is a hardcover book with full-color pages. The reader-friendly layout includes manageable chunks of text, vibrant images that directly connect to the lesson content, and helpful headings. • Student Edition: Online interactive edition: The HTML5-formatted HMH Florida Physics Student Edition invigorates learning by delivering a completely interactive experience. The online interactive textbook includes an embedded natural-voice text reader, an interactive table of contents, and numerous embedded lesson-specific materials and multimedia features that can be launched directly from the lesson pages. Tools for note-taking, highlighting, annotating, and bookmarking are built into the online interactive textbook. • Student Edition: HMH eTextbooks App: An offline-ready version of the HMH Florida Physics Student Edition is available in downloadable EPUB3 format from the HMH eTextbooks App. The digital version of the print textbook delivers increased portability and embedded interactive features for use on desktops, laptops, Chromebooks, and Apple and Android tablets. The Student Edition from the HMH eTextbooks App includes links to resources at point-of-use and digital note-taking, highlighting, and annotation tools. Additional information about the HMH eTextbooks App is at <http://www.hmhco.com/classroom/classroom-solutions/digital-and-mobile-learning/hmh-etextbooks>. • Student Edition: Downloadable PDF: A downloadable PDF of the print version of the HMH Florida Physics Student Edition is available from HMH's online platform. It can be downloaded to any compatible device for offline use. • Student Edition: Common Cartridge: HMH Florida Physics is also available in the IMS Global Common Cartridge Standard. This offering combines the high-quality curriculum with the IMS interoperability standards to deliver digital content that can be accessed in an IMS-conformant Learning Management System (LMS). The content in Common Cartridge consists of digital components such as the online textbooks and resources. It is all packaged for maximum flexibility to allow for individualization that meets the needs of all students. Houghton Mifflin Harcourt's Common Cartridge delivers the quality, consistency, reliability, and flexibility that optimize students' digital learning experience. Information about Common Cartridge is available at <http://www.hmhco.com/classroom/classroom-solutions/digital-and-mobile-learning/common-cartridge>.

Major Tool - Teacher Components Describe each of the components, including a format description.

Teacher Edition • Teacher Edition: Print edition: The HMH Florida Physics print Teacher Edition is well-organized, easily portable, and teacher-friendly. This hardcover text provides high-quality instructional support, robust differentiation, strategies and activities for all levels and styles of learners, and structured support for labs. • Teacher Edition: Online interactive edition: The HTML5-formatted HMH Florida Physics Teacher Edition enhances instruction and includes layers of support built into every page. The online interactive textbook has an interactive table of contents, lesson-specific professional development supports, and resources and multimedia features that can be launched directly from the lesson pages. Tools for note-taking, highlighting, annotating, and bookmarking are built into the online interactive textbook. • Teacher Edition: Downloadable PDF: A downloadable PDF of the print version of the HMH Florida Physics Teacher Edition is available from HMH's online platform. It can be downloaded to any compatible device for offline use. • Teacher Edition: Common Cartridge: HMH Florida Physics is also available in the IMS Global Common Cartridge Standard. This offering combines the high-quality curriculum with the IMS interoperability standards to deliver digital content that can be accessed in an IMS-conformant Learning Management System (LMS). The content in Common Cartridge consists of digital components such as the online textbooks and resources. It is all packaged for maximum flexibility to allow for individualization that meets the needs of all students. Houghton Mifflin Harcourt's Common Cartridge delivers the quality, consistency, reliability, and flexibility that optimize students' digital learning experience. Information about Common Cartridge is available at <http://www.hmhco.com/classroom/classroom-solutions/digital-and-mobile-learning/common-cartridge>.

4. IDENTIFY AND DESCRIBE THE ANCILLARY MATERIALS. Briefly describe the ancillary materials and their relationship to the major tool.

Ancillary Materials - Student Components Describe each of the components, including a format description.

Teacher Edition • Teacher Edition: Print edition: The HMH Florida Physics print Teacher Edition is well-organized, easily portable, and teacher-friendly. This hardcover text provides high-quality instructional support, robust differentiation, strategies and activities for all levels and styles of learners, and structured support for labs. • Teacher Edition: Online interactive edition: The HTML5-formatted HMH Florida Physics Teacher Edition enhances instruction and includes layers of support built into every page. The online interactive textbook has an interactive table of contents, lesson-specific professional development supports, and resources and multimedia features that can be launched directly from the lesson pages. Tools for

note-taking, highlighting, annotating, and bookmarking are built into the online interactive textbook. • Teacher Edition: Downloadable PDF: A downloadable PDF of the print version of the HMH Florida Physics Teacher Edition is available from HMH's online platform. It can be downloaded to any compatible device for offline use. • Teacher Edition: Common Cartridge: HMH Florida Physics is also available in the IMS Global Common Cartridge Standard. This offering combines the high-quality curriculum with the IMS interoperability standards to deliver digital content that can be accessed in an IMS-conformant Learning Management System (LMS). The content in Common Cartridge consists of digital components such as the online textbooks and resources. It is all packaged for maximum flexibility to allow for individualization that meets the needs of all students. Houghton Mifflin Harcourt's Common Cartridge delivers the quality, consistency, reliability, and flexibility that optimize students' digital learning experience. Information about Common Cartridge is available at <http://www.hmhco.com/classroom/classroom-solutions/digital-and-mobile-learning/common-cartridge>.

Ancillary Materials - Teacher Components Describe each of the components, including a format description.

Teacher Materials for Labs • Labs with Teacher Notes (Word, PDF): This resource contains editable versions of the student labs along with focused guidance for instruction and planning. • Laboratory Manager's Professional Reference (PDF): This is a 150-page resource for valuable guidelines and suggestions for managing labs. • Professional Reference for Teachers (PDF): This 180-page resource offers valuable strategies from experts in science education. • Classroom Management Resources (PDFs): This contains a collection of useful teacher and student pieces in one place, available immediately. Animations, Simulations, & Videos • Google Expeditions (VR/HTML and Javascript coding): Teachers guide these virtual reality field trips by using the HMH Florida Physics-Google Expeditions Teacher's Guide. The ready-made questions and corresponding activities guide students to think analytically and critically about what they have experienced and make connections to concepts presented in the HMH Florida Physics lessons. Teacher's Guides and Other Resources • Interactive Reader Teacher's Guide (PDF, print) • Florida Standards Guide Teacher's Guide (PDF, print) • Engineering Design Guide Teacher Edition (PDF, print) • Sample Problem Sets I & II Answer Keys (Word, PDF) • Textbook Solutions (PDF) • PDFs on the platform: The HMH Florida Physics program includes PDF versions of activities and worksheets, such as the Study Guide Worksheets by chapter and section. Teacher Presentation Tools • Interactive Whiteboard Resources: Interactive Whiteboard Resources for each chapter are formatted for SMART Notebook and ActivInspire Flipchart. • PowerPresentations (PPT): PowerPresentations are pre-built PowerPoint slides (Inquiry-based format, Outline format, and Test Prep format) covering the core material of each chapter. • Teaching Visuals (PDF): These are digital versions of key illustrations/diagrams. Teaching Strategies Resources • Teacher Toolkit (PDFs): This resource on the platform's Teacher Resources page has more than 200 lesson resources and tools. • Teaching Strategies (PDF): This resource includes select strategies from the Teacher Edition. Teacher Planning Tools • mySmartPlanner (HTML5): With the time-saving mySmartPlanner tool on HMH's online platform, teachers can quickly search for, choose, and schedule lessons and resources with just a few clicks. An auto-schedule function automatically populates the schedule for specific date ranges or for the entire year. It synchronizes with all HMH programs that a teacher may use, serving as a one-stop scheduling tool for all lessons, resources, assignments, and assessments. • Correlation to the Next Generation Sunshine State Standards (PDF): This resource shows the correlations between HMH Florida Physics content and the NGSSS. Online Assessment System • ExamView Assessment Suite (HTML5): ExamView Assessment Suite (HTML5) increases the ease of planning, administering, scoring, and reporting. It includes a test item bank and pre-made program assessments, and it has scoring and reporting capabilities. Assessments can be edited, and teachers may customize them in a number of ways. Complexity levels for items on pre-loaded tests and test bank items are shown. Assessments can be scheduled and administered online, and they can also be downloaded and printed. • Online Assessment with Remediation (HTML5): The HMH Florida Physics program includes Online Assessment with Remediation, which allows teachers to easily assign Section Quizzes and Chapter Tests. The system can automatically score responses, and performance data are recorded for the teacher. Automated remediation and reassessment are provided for Section Quizzes. • Assessment Guide (PDF and print): The Assessment Guide includes Section Quizzes, Leveled Chapter Tests, Alternative Assessments, and more. It also includes scoring rubrics and answers with explanations.

5. IDENTIFY WHICH INDUSTRY STANDARD PROTOCOLS ARE UTILIZED FOR INTEROPERABILITY?

HMH's educational technology supports the standards set forth by the IMS Global Learning Consortium.

6. HOW MUCH INSTRUCTIONAL TIME IS NEEDED FOR THE SUCCESSFUL IMPLEMENTATION OF THIS PROGRAM? Identify and explain the suggested instructional time for this submission. If a series, state the suggested time for each level. The goal is to determine whether the amount of content is suitable to the length of the course for which it is submitted.

This program is intended for use throughout one school year, in either a traditional daily schedule or a block schedule.

7. WHAT PROFESSIONAL DEVELOPMENT IS AVAILABLE? Describe the ongoing learning opportunities available to teachers and other education personnel that will be delivered through their schools and districts as well as the training/in-service available directly from the publisher for successful implementation of the program. Also provide details of the type of training/in-service available and how it may be obtained. (The information provided here will be used in the instructional materials catalog in the case of adoption of the program.)

Supporting Initial Program Implementation To ensure teachers have the knowledge to begin implementing their new HMH program, professional learning is provided with purchase. We understand that schools and districts need choices regarding delivery options; as a result, we offer a variety of delivery methods for this initial program learning. Clients may choose from courses listed below. Getting Started with Florida Physics Participants engage in a variety of hands-on experiences to learn about Florida Physics organization, design, and resources, through direct instruction, guided practice, and cooperative exploration, participants will experience the program's resources both from a student and teacher perspective. The goal is to build deeper understanding and confidence to begin implementing Florida Physics in their respective learning environments. Learning Outcomes: • Enrich daily instruction by applying knowledge of Florida Physics program organization and pedagogy • Support differentiation, assessment, and effective whole and small group instruction using HMH program resources and instructional tools • Enhance instructional delivery and student learning using HMH technology Audience: Teachers, Coaches, Administrators Delivery: In-person Time: Full-day, Half-day or Webinar Getting Started with Florida Physics Train the Trainer As an alternative to Getting Started, leaders and educators can choose to build capacity internally. Our specialized team of consultants helps school and district trainers deliver initial program training at their respective sites. Learning Outcomes: • Enrich daily instruction by applying knowledge of Florida Physics program organization and pedagogy • Support differentiation, assessment, and

effective whole and small group instruction using HMH program resources and instructional tools • Enhance instructional delivery and student learning using HMH technology Audience: Teachers, Coaches, Administrators Delivery: In-person Time: Full-day Getting Started Leadership Webinar Designed specifically for district and school leaders and instructional coaches, the Getting Started Leadership Webinar provides an overview of the Florida Physics program organization, lesson design, and support resources. The goal is to build deeper understanding of the program's alignment to standards as well as identify key teacher and student behaviors to observe in their learning environments. Learning Outcomes • Recognize program alignment to national standards • Understand program organization and resources that support differentiation, assessment, and effective whole and small group instruction • Identify teacher and student behaviors that positively impact student achievement when observing Florida Physics classroom implementation and delivery Audience: Teachers, Coaches, Administrators Delivery: Webinar Time: 1 hour

8. WHAT HARDWARE/EQUIPMENT IS REQUIRED? Briefly list and describe the hardware/equipment needed to implement the submission in the classroom. REMEMBER: Florida law does not allow hardware/equipment to be included on the bid! However, schools and districts must be made aware of the hardware/equipment needed to fully implement this program.

Districts that choose to use the program's technology-based textbooks and components can use any of the following hardware/equipment:
Operating systems: Chromebooks Windows 7, 8.1 desktop/tablet, 10 Mac 10.9, 10.10, 10.11 iOS 8 and 9.7"+ screen Android 4.4 and 5.7"+ screen Minimum RAM: 512 MB Hard drive space needed: Core program: less than 1 GB ExamView Assessment Suite: 32 MB on PC, 28 MB on Mac

9. WHAT LICENSING POLICIES AND/OR AGREEMENTS APPLY? If software is being submitted, please attach a copy of the company's licensing policies and/or agreements.

See Attached

10. WHAT STATES HAVE ADOPTED THE SUBMISSION? List some of the states in which this submission is currently adopted.

This program is brand new and has not been adopted in other states as of this time.

11. WHAT OPEN EDUCATIONAL RESOURCES RELATED TO THIS BID DO YOU MAKE AVAILABLE(S)? List and describe each of the components, including a format description. (Open Educational Resources (OER) are high-quality, openly licensed, online educational materials that offer an extraordinary opportunity for people everywhere to share, use, and reuse knowledge.)

Open Educational Resources are not included in the HMH Florida Physics program.

12. ALTHOUGH NOT CALLED FOR IN THE STATE ADOPTION, DO YOU HAVE ADVANCED PLACEMENT (AP) OR ACCELERATED PROGRAM INSTRUCTIONAL MATERIALS AVAILABLE FOR THE COURSE(S) BID FOR ADOPTION?

HMH Florida Physics includes support and materials for advanced learners, such as Differentiated Instruction: Pre-AP strategies and Pre-AP Activities. The program also includes other challenging extension and enrichment activities.

13. WHAT, IF ANY, FOREIGN LANGUAGE TRANSLATIONS DO YOU HAVE AVAILABLE?

The HMH Florida Physics program has an English-Spanish glossary.