

INSTRUCTIONAL MATERIALS PUBLISHERS

Bid Item

Course: Science - Grade Four (5020050)

Title: HMH Florida Science, Grade 4 , Edition: First

Copyright: 2019

Author: DiSpezio, et al

Grade Level: K - 5

Publisher Questionnaire

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

Michael A. DiSpezio, Global Educator, North Falmouth, Massachusetts Michael DiSpezio has authored many HMH instructional programs for science and mathematics. He has also authored numerous trade books and multimedia programs on various topics and hosted dozens of studio and location broadcasts for various organizations in the U.S. and worldwide. Most recently, he has been working with educators to provide strategies for implementing science and engineering practices, including engineering design challenges. To all his projects, he brings his extensive background in science; his expertise in classroom teaching at the elementary, middle, and high school levels; and his deep experience in producing interactive and engaging instructional materials. Marjorie Frank, Science Writer and Content-Area Reading Specialist, Brooklyn, New York An educator and linguist by training, a writer and poet by nature, Marjorie Frank has authored and designed a generation of instructional materials in all subject areas, including past HMH programs. Her other credits include authoring science issues of an award-winning children's magazine; writing game-based digital assessments; and serving as instructional designer and coauthor of pioneering school-to-work software. In addition, she has served on the adjunct faculty of Hunter College, Manhattan College, and Brooklyn College, teaching courses in science methods, literacy, and writing. Michael R. Heithaus, Ph.D., Dean, College of Arts, Sciences & Education and Professor, Department of Biological Sciences, Florida International University, Miami, Florida Mike Heithaus joined the Florida International University Biology Department in 2003. He has served as Director of the Marine Sciences Program and Executive Director of the School of Environment, Arts, and Society, which brings together the natural and social sciences and humanities to develop solutions to today's environmental challenges. He now serves as Dean of the College of Arts, Sciences & Education. His research focuses on predator-prey interactions and the ecological importance of large marine species. He has helped to guide the development of life science content in HMH Florida Science, and he placed special focus on the Science and Engineering Practices and on strategies for teaching challenging content.

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

HMH Florida Science © 2019 for Kindergarten through Grade 5 is a core science curriculum designed for all learners in the general education setting, including those who perform on grade level, below grade level, and above grade level, as well as English Language Learners. The program extends through Grade 8, giving students coherence and continuity in their science curriculum across the elementary and middle school years.

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 Science is a comprehensive science curriculum designed specifically for Florida. Built to meet 100% of the Next Generation Sunshine State Standards (NGSSS), HMH Florida Science 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 Editions, Student Editions, 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 Science 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 Science, built specifically to meet 100% of the Next Generation Sunshine State Standards, presents a balanced and engaging inquiry-based approach to STEM exploration, conceptual learning, and scientific problem-solving. The program offers expertly crafted differentiated instruction and a wealth of consistent support for reading and vocabulary, scientific inquiry, and the Engineering Design Process, as well as preparation for high-stakes assessments. Students engage in the practices of scientists; they learn by doing, with continual questioning and

reflection. They must describe what they observe, ask questions of themselves and others, formulate hypotheses and explanations, test explanations, and communicate their conclusions and their analyses of the findings. The program's Digital Inquiry Lessons, Hands-On Labs, Virtual Labs, activities in the Student Edition, and inquiry-based discussions work together to provide students with these continuous, meaningful experiences that create a strong foundation for success in future grades, college, and career. HMH Florida Science focuses on conceptual understanding, procedural skills, and application of knowledge. The program's 5E Instructional Model (Engage, Explore, Explain, Extend/Elaborate, and Evaluate) guides students through learning experiences that develop scientific reasoning and problem-solving skills. Throughout every lesson, students engage in the practices of scientists -- they learn by doing, exploring, questioning, and reflecting. The program's inquiry-based environment keeps them engaged with abundant hands-on and virtual lab experiences built into every lesson. Unlike in other programs, all of HMH Florida Science's labs are interactive and require direct student engagement. Labs are embedded with prompts that encourage students to engage in the Scientific Process and the Engineering Design Process. Students must describe their plan, note observations, record data, ask questions of themselves and others, formulate hypotheses and explanations, test explanations, and communicate their conclusions and their analyses of the findings. Just as the standards recommend, HMH Florida Science builds critical thinking and analytic skills. The program's Student Edition, digital resources, and leveled labs work together to provide students with these coherent, meaningful interactions. In this age of tech-savvy students, HMH addresses modern learning preferences by providing everything in the program online and offering offline digital options. The interactive Student Editions, Digital Inquiry Lessons, Online Coding Activities with MIT's Scratch and Scratch, Jr., and Google Expeditions virtual reality field trips are among the many components of HMH Florida Science that actively immerse students in STEM. The technology of HMH Florida Science not only elevates engagement and conceptual understanding, it gives your students twice the standards coverage in one program. The print curriculum and the digital curriculum each deliver unique content with different examples and different activities. This gives students multiple exposures and varied ways to develop deep conceptual understanding and skills. The interactive, multimodal learning model delivers the content in novel ways that immerse students in the rigor of the standards with comprehensive instruction and authentic learning experiences. HMH Florida Science delivers the NGSSS-based experiences that immerse students in an active learning environment, spark curiosity, cultivate interests, and set students on a path to long-term achievement in science.

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

Student Editions • Student Editions: Print editions: At every grade level, the HMH Florida Science print Student Edition is well-organized, visually appealing, and easily portable. This core text is consumable with a write-in format and full-color pages. The reader-friendly layout includes manageable chunks of text, vibrant images that directly connect to the lesson content, helpful headings, and ample space for responses. • **Student Editions:** Online interactive editions: The HTML5-formatted HMH Florida Science Student Editions invigorate learning by delivering a completely interactive experience. The online interactive textbooks include 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 textbooks. • **Student Editions:** HMH eTextbooks App: Offline-ready versions of the HMH Florida Science Student Editions are available in downloadable EPUB3 format from the HMH eTextbooks App. These digital versions of the print textbooks deliver increased portability and embedded interactive features for use on desktops, laptops, Chromebooks, and Apple and Android tablets. The Student Editions from the HMH eTextbooks App include 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 Editions:** Downloadable PDFs: Downloadable PDFs of the print versions of the HMH Florida Science Student Editions are available from HMH's online platform. They can be downloaded to any compatible device for offline use. • **Student Editions:** Common Cartridge: HMH Florida Science 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>. **Test Prep • Florida Statewide Science Assessment Review and Practice Student Book (Grades 3-5, PDF and print):** This resource prepares students for the content and format of Florida's state test. Full-length practice assessments are also included.

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

Teacher Editions • Teacher Editions: Print editions: At every grade level, the HMH Florida Science 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 Editions:** Online interactive editions: The HTML5-formatted HMH Florida Science Teacher Editions enhance instruction and include layers of support built into every page. The online interactive textbooks 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 textbooks. • **Teacher Editions:** Downloadable PDFs: Downloadable PDFs of the print versions of the HMH Florida Science Teacher Editions are available from HMH's online platform. They can be downloaded to any compatible device for offline use. • **Teacher Editions:** Common Cartridge: HMH Florida Science is also available in the IMS Global Common Cartridge Standard. Information about Common Cartridge is available at <http://www.hmhco.com/classroom/classroom-solutions/digital-and-mobile-learning/common-cartridge>. **Test Prep • Florida Statewide Science Assessment Review and Practice Teacher's Guide (Grades 3-5, PDF and print):** This resource offers professional guidance and answer keys that correspond to the students' resource.

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.

Labs, Investigations, & Inquiry-Based Activities • HMH Florida Science Digital Lessons and Virtual Labs (HTML5): Digital Lessons present the lesson topic, vocabulary, and inquiry skills in unique ways. The alternative, tech-enhanced delivery gives students multimodal and multiple exposures to the content. The Virtual Labs allow students to complete experiments not typically performed in a school laboratory setting. They give

students a state-of-the-art learning experiences without any need for materials, set-up, or advance planning. The Virtual Labs include full audio with captions, and students can control the pacing of the lab. • Lab Datasheets (PDF and print): These lab-specific datasheets correspond to the Leveled Inquiry and guide students through the procedures with open-ended questions that require written responses. • You Solve It (HTML5): You Solve It presents simulation-based learning experiences that include thought-provoking visuals and interactive questions. You Solve It starts off with an overview that provides the context and some basic instructions for using the open-ended simulation. While watching the simulation, students have complete control of the experience. They execute their own choices for gathering evidence and reaching a solution. At any time, students can visit the Support page for background information, tips, and a rubric. • Google Expeditions (VR/HTML and Javascript coding): In partnership with Google, HMH brings you Google Expeditions virtual reality field trips that immerse students in captivating 3D, 360-degree panoramic explorations. With Google Expeditions virtual reality field trips and connected curricular resources, students are taken to various places in the real world through a simple Google Cardboard viewer and a mobile phone. Teachers guide students through each inquiry-based virtual reality field trip by using a tablet, the Google Expeditions App, and the HMH Florida Science-Google Expeditions Teacher's Guide with HMH Florida Science-specific lesson resources. The Google Expeditions App is available for Apple and Android phones. Reading and Vocabulary • Student Edition Audio (embedded in the HTML5 and EPUB3 Student Editions): Students can activate the audio text reader embedded in the pages of the Student Edition. • Multilanguage Glossary (PDF): This downloadable glossary presents key terms and definitions in English, Spanish, Chinese, Vietnamese, Khmer, Laotian, Arabic, Haitian Creole, Russian, and Portuguese. • English-Spanish Interactive Glossary (HTML5): Vocabulary and definitions are presented with visuals or video and English and Spanish audio text readers. • The HMH Science & Engineering Leveled Readers (PDF and print): Available in print and digitally, these readers give students opportunities to make connections, extend their knowledge, and strengthen informational reading skills. The HMH Science & Engineering Leveled Readers are accompanied by a Teacher Guide that includes strategies and support for students of varied reading levels. Three levels of HMH Science & Engineering Leveled Readers are available for every unit of the program – On Level, Extra Support, and Enrichment – in both Spanish and English. • Big Book of Science Songs and Rhymes, Big Book of Science Vocabulary, and Picture Sorting Cards (K, PDF and print): These components provide additional multisensory experiences for Kindergarten students. Resources for Reference, Research, and Extended Learning • ScienceSaurus (PDF and print): These handbooks present clear and concise text with supporting visuals that aid comprehension and help students master key concepts. ScienceSaurus has a friendly, organized format that promotes focus and understanding. • People and Careers in Science & Engineering (HTML5): HMH's People and Careers in Science & Engineering microsite delivers audio-enhanced leveled articles about real STEM professionals of the past and present and STEM-related professions.

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

Labs, Investigations, & Inquiry-Based Activities • Teacher's view of the Digital Lessons and Virtual Labs (HTML5): The teacher's view includes an embedded Lesson Tracker that shows real-time data about students' use of the Digital Lessons and Virtual Labs -- Number of Visits, Time on Screen, Number of Attempts, and item analysis. The teacher's view also includes the lesson script and a link to guided inquiry prompts. Teacher Virtual Lab Datasheets with Answers (PDF) are also included. • Google Expeditions (VR/HTML and Javascript coding): Teachers guide these virtual reality field trips by using the HMH Florida Science-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 Science lessons. • Video-Based Projects (Grades 3-5, HTML5): Teacher support pages and student activity worksheets are included in the teacher materials for this resource. • Inquiry Flipcharts (K, PDF and print): The flipcharts (print and digital; available in Spanish) offer hands-on inquiry experiences for every lesson, allowing students to confirm understanding through application of concepts. The activities include three levels of scaffolding (Directed, Guided, and Independent), and they are great for use with small groups. Content-Area Literacy Materials • The HMH Science & Engineering Leveled Readers Teacher's Guides (PDF and print): These include strategies and leveled support, as well as corresponding worksheets and Extension activities. • Big Book of Science Songs and Rhymes, Big Book of Science Vocabulary, and Picture Sorting Cards (K, PDF and print): These components provide additional multisensory experiences in Kindergarten. Online Coding Activities • Online Coding Activities (PDFs, for use on sites built on Scratch Blocks code base): The Online Coding Activities resource coordinates with the Technology and Coding lessons. The program's Technology and Coding lessons contribute to students' readiness for college and STEM-based careers by promoting a meaningful understanding of the foundations of technology, engineering, and computer coding. Students apply what they've learned through age-appropriate Online Coding Activities, which use MIT's free, open source block-based coding program, Scratch, and its site for Grades 1 and 2, Scratch Jr. Students learn to program sequential commands as they code and animate characters and create and play games on Scratch or Scratch Jr. Family and Community Engagement • Take It Home Worksheets and School-Home Connection letters (PDF and print): Each Take It Home worksheet corresponds to the lesson and encourages learning outside of the classroom. School-Home Connection letters provide an overview of the unit content, a reminder to participate in the Take It Home activity, and an invitation to view the program's digital resources. 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 Science content and the NGSSS. Classroom and Professional Development Resources • The Teacher Resource Bank (PDFs): This feature on the platform's Teacher Management Center contains helpful resources, all in one place and readily available. Included are Inquiry Logs, Experiment Logs, Writing and Science models and rubrics, and more. • Additional Teacher's Guides (PDFs): Teacher materials are also provided for Open Inquiry resources, ScienceSaurus, Daily Inquiry Activities, Inquiry Support, and Extra Support for Vocabulary and Concepts. 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. • Assessment Guide (PDF, print): The Assessment Guide includes Lesson Quizzes, Unit Tests, Standardized Test Preparation, and Performance Assessments. 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 Science Participants engage in a variety of hands-on experiences to learn about Florida Science 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 Science in their respective learning environments. Learning Outcomes:

- Enrich daily instruction by applying knowledge of Florida Science 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 Science 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 Science 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 Science 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 Science 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 Science 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 does not offer an Advanced Placement or Accelerated version of HMH Florida Science.

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

The HMH Florida Science program is available in Spanish. The HMH Science & Engineering Leveled Readers are available in Spanish. The Florida Statewide Science Assessment Review and Practice Student Book and Teacher's Guide will be available in Spanish. The English-language program includes a multi-language glossary that presents key terms and definitions in English, Spanish, Chinese, Vietnamese, Khmer, Laotian, Arabic, Haitian Creole, Russian, and Portuguese. Also included is an English-Spanish interactive glossary that delivers vocabulary and definitions with visuals or video and English and Spanish audio text readers.