

**State of Florida Instructional
Materials Adoption Publisher
Questionnaire (Form IM8)**

BID #: 773

SUBMISSION TITLE: Earth and Space Science, Florida Edition

GRADE LEVEL: 09-12

COURSE TITLE: Earth/Space Science

COURSE CODE #: 2001310

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PUBLISHER: Cengage Learning, Inc.

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

1. **Marc Hendrix** - Marc S. Hendrix is a Professor of Geology at the University of Montana in Missoula, Montana. Growing up in Gettysburg, Pennsylvania, he developed an early love of geology in the 1970s while working as a field assistant for his father, a biology professor at Gettysburg College. He earned a bachelor's degree in geology from Wittenberg University in Springfield Ohio in 1985, a master's degree in geology and geophysics from the University of Wisconsin-Madison in 1987 and a Ph.D. in applied earth sciences in 1992 from Stanford University, where he conducted research on the geologic record of mountain building and ancient climate in western China. As a postdoctoral researcher at Stanford, he analyzed the geologic history of Mongolia. In 1994 Dr. Hendrix joined the faculty at the University of Montana where he has developed a field-based research program focused on the geology of the northern Rocky Mountains. He and his students have published a variety of technical papers on the geology of North America, Asia and Africa, and in 2011 he authored and illustrated GEOLOGY UNDERFOOT IN YELLOWSTONE COUNTRY. Dr. Hendrix has served as an expert witness and consultant in the field of geology, and he continues to travel broadly to conduct geologic research. He lives in Missoula with his wife and two sons.
2. **Graham R. Thompson** - Gray Thompson is an Emeritus Professor of Geology at the University of Montana where he taught Introductory Geology, Mineralogy, Summer Field Mapping and graduate courses in Clay Mineralogy and Shale Petrology. He has published over 20 research papers in international journals, mostly co-authored with his students. He also has authored many articles published in international climbing magazines and journals and has been the subject of other articles in these publications. Dr. Thompson is a mountaineer and professional guide with first ascents--many with Jon Turk--of peaks and routes in the Rocky Mountains, Alaska, the Yukon, Baffin Island, the Alps, the Karakoram and the Himalayas. He and Dr. Turk took many of the photographs in his texts on their climbing trips and expeditions over the last 18 years. Dr. Thompson earned a bachelor's degree in geology from Bates College, a master's in geology-geochemistry/petrology from Dartmouth College and a Ph.D. in geochemistry/clay mineralogy/petrology from Case Western Reserve University.
3. **Jonathan Turk** - Jon Turk is a chemist, professional geoscience writer, and adventurer. He received his PhD in 1971, and later that year he co-authored the first environmental science college textbook in the country. In the 32 years since then, Turk has continued his career as a science writer, publishing 23

environmental and geoscience texts. His love of unspoiled environments and fascination for the wild places of this planet have also led to a distinguished career as an adventurer. He has kayaked around Cape Horn as well as the 3,000 miles between Japan and Alaska, crossed the western Gobi of Mongolia, unsupported, on a mountain bike, and was the first to ascend Lamo-she Peak (6,070 meters) in the eastern Himalayas with co-author Gray Thompson. He has written numerous magazine articles about his expeditions as well as adventure/travel books, including *In the Wake of the Jomon: Stone Age Mariners* and *a Voyage Across the Pacific* (McGraw Hill, 2005).

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

National Geographic Earth and Space Science, Florida Edition is Intended for Florida High School Students.

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

National Geographic Earth and Space Science, Florida Edition is a new program for the Florida Science adoption and has not yet been piloted in Florida.

2.HOW ARE YOUR DIGITAL MATERIALS SEARCHABLE BY FLORIDA’S ACADEMIC STANDARDS (SECTION 1006.33(1)(e), FLORIDA STATUTES)?

Within the MindTap School platform, a user can search for a specific standard code using the search bar at the top of the page and retrieve a list of all activities within the course that are tagged to that standard. Additionally, a user can click on "Materials" and browse through the sets of standards that are associated to the course. Clicking on a specific standard will retrieve the list of all activities within the course that are tagged to that standard.

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.)

National Geographic Earth and Space Science, Florida Edition aims to develop students' critical and computational thinking skills, as well as a systems-thinking approach toward understanding geologic processes. This program presents a rich overview of Earth and Space-related disciplines: exploring the physical attributes of planet Earth and its environment, emphasizing the human choices we have made, and discussing the physical consequences of those choices in the context of Earth systems.

National Geographic Earth and Space Science, Florida Edition fully aligns with the curriculum requirements of the Florida Next Generation Sunshine State Standards, and the B.E.S.T. Standards.

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

The Student Edition of *National Geographic Earth and Space Science, Florida Edition* is the Major Tool for students. It consists of 7 Units and 25 Chapters and is available in print as well as online on the MindTap School platform with interactive elements (videos, animations, and assessments).

Each Chapter Opener presents a phenomenon that can be revisited and discussed throughout the chapter to advance students' learning and pique their interest in the subject matter. The Key Questions act as the driving or

essential questions of the chapter. Core Ideas and Skills are identified at the beginning of each lesson, as well as definitions of Key Terms. Each chapter offers multiple opportunities for hands-on Earth science through Minilabs, Data Analysis activities, and a full Chapter Investigation.

Special Features Include:

The Explorers at Work feature in each chapter introduces students to a National Geographic Explorer—a diverse cross-section of geoscientists, engineers, artists, and adventurers—whose work relates to the Earth science concepts presented in the chapter.

Explorer's On Assignment: Storytelling through the work of National Geographic's world-class photographers in the On Assignment feature enhances visual learning.

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

The Teacher's Edition of *National Geographic Earth and Space Science, Florida Edition* is the Major Tool for teachers and is available in print as well as online on the MindTap School platform.

The Teacher's Edition provides in-depth instructional materials at the lesson level. Each **Unit Planning Guide** offers a chapter-by-chapter guide for classroom planning and time management. The Guide outlines the unit's key science and engineering practices and previews the National Geographic Explorers. It also identifies an anchoring phenomenon for each chapter, lists the Lab and Minilab materials, and offers pacing guidelines for the core content and Investigations. A Chapter Overview provides a synopsis of the chapter and a description of the main topics in each lesson.

Differentiated Instruction notes provide leveled support for students' unique learning needs, including strategies to support Economically Disadvantaged Students, Students with Disabilities, Gifted and Talented Students, and Girls.

The Teacher eEdition provides complete access to all Student components and the following instructional support and tools:

All content that is in the Student Edition

Standards Correlation

Ability to customize the course and re-arrange the content

Ability to create assignments

Strategies for Differentiation

Gradebook

Reports

Groups

StudyHub

PowerPoint Lecture Notes

Assessment Handbook

Lab Manual

Lab Materials List

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.

Student Lab Manual - This manual provides a printable version of all labs in the program. Available Print / Digital PDF in Mindtap platform.

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

1. Teacher Lab Manual - This manual provides a printable version of all labs in the program. Available Print / Digital PDF in Mindtap platform.
1. Assessment Handbook - This manual provides a printable version of all chapter pretests and posttests, chapter tests and performance tasks in the program. Available Print / Digital PDF in Mindtap platform.

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

MindTap, National Geographic Learning/Cengage's online portal for teaching and learning, has been certified by IMS Global at the v1.3 LTI Advantage interoperability level.

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 aligned to either a half-year or a full-year course. Lessons, activities, and review questions are designed to be flexible and to provide the teacher with the opportunity to extend or shorten the time spent on lessons as needed. A Chapter Planner at the beginning of each chapter also assists with planning.

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.)

Please refer to a separate detailed document called the Florida Customer Care Package which describes all the product implementation training that is available based on the purchased products and quantities. The training ranges from multiple day, in-person training with several scheduled follow up trainings over multiple years to individual 1 on 1 online/remote training sessions. There are also many online on-demand training modules available to keep teachers successful any time of the day or week to ensure successful implementation and use of our products in the classroom.

8. WHAT HARDWARE/EQUIPMENT IS REQUIRED? 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.

Please access MindTap system requirements through the following link: <https://help.cengage.com/mindtap/mt-student/common/system-requirements.html> or see below.

Cengage web-based learning platforms require broadband internet access and supported web browsers and plugins.

Supported Browsers

Supported browsers for different activity types may vary. If you are using SAM in MindTap, see [SAM in MindTap System Requirements](#).

Windows®

- Chrome™ 96 and 97
- Firefox® 96 (Windows 10 only)
- Edge 96 and 97 (Windows 10 only)

macOS™

- Chrome 96 and 97
- Safari® 14 and 15

Chrome OS™

- Chrome 96 and 97

iOS

- Safari 14 and 15

Other browsers and versions than those listed might also work, but are not supported. If you have problems when using an unsupported browser version, try using a supported browser version before contacting Customer Support.

Workstation Recommendations

- Download bandwidth: 5+ Mbps
- RAM: 2+ GB
- CPU: 1.8+ GHz / multi-core
- Display: 1366 × 768, color
- Graphics: DirectX, 64+ MB
- Sound (for some content)
- [Check Your System](#)

Use the browser check tool to see if you need to update your browser or install missing plugins.

- [Browser Settings](#)

Configure the following settings in your web browser. (Click on the link.)

- [Browser Plugins](#)

Some content and tools might require the following browser plugins. (Click on the link.)

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.

Attached are two National Geographic Learning/Cengage policies: the MindTap licensing policy and the privacy policy.

[Cengage-Group-School-Terms_of-Use-January-2022.pdf](#)

[cengage-privacy-notice-october-2020-1508150.pdf](#)

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

National Geographic Earth and Space Science, Florida Edition is new for the Florida Science adoption and not been adopted in other states.

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 (OER) are not included in the National Geographic Learning/Cengage bid.

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?

National Geographic Learning/Cengage does not offer Advanced Placement and/or accelerated program instructional materials for *Earth and Space Science, Florida Edition*.

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

National Geographic Earth and Space Science, Florida Edition is available in English only.

14. DO YOU PROVIDE ACCESS POINT SCAFFOLDING OR AN ACCESS POINT CORRELATION UPON REQUEST?

National Geographic Earth and Space Science, Florida Edition fully aligns with the curriculum requirements of the Florida Next Generation Sunshine State Standards and the B.E.S.T. Standards. Unit, chapter, and lesson alignments are available at point-of-use within the Student and Teacher editions in print and digital formats. In addition, suggestions for differentiated instruction appear at the chapter level and in individual lessons in the Teacher edition to provide access to the content with reduced levels of complexity. Access Point correlations are available upon request.

15. ESSA LEVELS OF EVIDENCE: To be considered an evidence-based program (or practice), it is required to have evidence to show that the program is in fact effective at producing results and improving outcomes in reading when implemented. Identification of evidence level alignment, Levels 1-4 (as outlined in the specifications), for the entirety of the program, part of the program, or individual practices within the program is required. Please explain how your product meets these requirements.

National Geographic Learning/Cengage is committed to providing results-driven solutions to improve student outcomes. The Science editorial department believes in providing rigorous, challenging, engaging content that is accessible by all learners and for all learning styles.

The National Geographic Learning Science programs are developed with the expertise of highly regarded authors, subject matter experts, program consultants, editorial staff, and reviewers who ensure the implementation of the most recent research studies and pedagogy to promote student achievement. It is the goal of National Geographic Learning to ensure we reach every Florida student in every National Geographic Learning classroom.

In every chapter, we have included several tools to help students improve their learning skills and apply them. First, consider the Key Questions list at the beginning of each chapter. These can be used to preview a chapter and to review the material after it's read.

Each Explorers at Work profiles the positive, inspiring, and creative problem-solving thinkers and scientists of National Geographic.

A Case Study anchors a chapter's big ideas to a real-world example. At the end of each Case Study is an As You Read note that challenges students to connect the chapter concepts to their own knowledge or life experiences.

Learning objectives are found in the Core Ideas and Skills box at the start of every lesson. The Key Terms box gives students an at-a-glance list of the important words they'll encounter that can be looked up in the English or Spanish glossary. After each lesson, formative assessments (a mix of multiple choice and constructed responses) measure comprehension of the content of the lesson as well as the building of literacy skills.

Following the last lesson is a Tying it All Together, which guides students through the analysis of data or information related to the real-world challenges discussed in the Case Study and throughout the chapter. A Chapter Summary reviews the big ideas and important details from each lesson. Finally, a Chapter Assessment is included to ensure overall comprehension before moving to a new chapter.

Each chapter offers multiple opportunities for hands-on Earth science through Minilabs, Data Analysis activities, and a full Chapter Investigation. A PDF version and additional teacher supports for each Chapter Investigation are available in MindTap.

In addition to strategies incorporated in the student edition, MindTap, National Geographic Learning's online platform for teaching and learning, is rich in formative and summative assessment to measure reading and content comprehension and employs multiple modes of assessment. The student eBook is also available to be read aloud to reinforce learning.

National Geographic Learning is committed to providing results-driven solutions to improve student outcomes. The focus is on the effective use of technology, strong student support, experienced and talented authors and consultants, frequent assessment, and student engagement through print and digital resources. With this strong foundation, National Geographic Learning supports the goals and outcomes of ESSA.