

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

BID #: 771

SUBMISSION TITLE: National Geographic Biology, Florida Edition

GRADE LEVEL: 09-12

COURSE TITLE: Biology 1

COURSE CODE #: 2000310

ISBN #: 9798214068275 Print SE / 9798214068404 Ebook SE

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.

The Authors of National Geographic Biology are Catherine Workman and Cather L. Quinlan.

CATHERINE WORKMAN, PH.D.

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Dr. Catherine Workman develops and oversees the implementation and execution of the science components of the National Geographic Society's strategy and leads the science team. Trained as an evolutionary anthropologist, Catherine has extensive experience in the policy, strategy, management, metrics, and communication of biodiversity conservation, international grant-making, and combating wildlife trafficking. She collaborates with colleagues and partners to engage a range of audiences and stakeholders including nonscientific, underrepresented, and youth groups. Prior to joining National Geographic, Catherine worked in the Conservation Biology department at Denver Zoo and was a 2014-2015 AAAS Science & Technology Policy Fellow at the United States Agency for International Development (USAID), where she helped address issues from unsustainable fishing to illegal logging. Catherine has a Ph.D. in evolutionary anthropology from Duke University.

CATHERINE L. QUINLAN, ED.D.

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Dr. Catherine L. Quinlan has over two decades of science-teaching experience in the K-12 and university settings, sixteen years of which were teaching high school biology. She holds a B.A. in English from Barnard College (premed), and an Ed.D. in Science Education from Teachers College, Columbia University. In her current position at Howard University School of Education, Dr. Quinlan prepares preservice teachers in science methods and education foundations for the K-12 classroom. Her research uses multidisciplinary and interdisciplinary approaches to look at the impact of cognitive, social, cultural, and historical factors on representation, and on Black students' persistence in STEM. Her research focuses on creating and evaluating a culturally representative

science curriculum, with a pilot funded by the National Science Foundation (NSF). Dr. Quinlan continues to bridge theory and practice with her representative chapter book series for children, *Keystone Passage*, which grounds the realities of science, history, and culture in light fantasy.

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

National Geographic Biology, 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 Biology 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 Biology, Florida Edition aims to develop students' critical and computational thinking skills, as well as a systems-thinking approach toward understanding biological processes. This program presents a rich overview of Biology-related disciplines: exploring the biodiversity of ecosystems, the interactions between various living systems, along with cell systems and functions, genetics and genetic technologies, while emphasizing the human choices we have made, and discussing the physical consequences of those choices in the context of Biological systems.

National Geographic Biology, 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 Biology, Florida Edition is the Major Tool for students. It consists of 5 Units and 16 Chapters and is available in print as well as online on the MindTap School platform with interactive elements (videos, animations, and assessments).

The **Chapter Opener and Case Study** work together to introduce a phenomenon and related Driving Question, which are revisited at the end of the chapter in the Tying It All Together activity. National Geographic Explorers are featured throughout each chapter. The work of this diverse cross-section of groundbreaking biologists, bioengineers, artists, and adventurers ties to the biology concepts presented in the chapter. Students will have numerous opportunities for hands-on learning through Minilabs, Data Analysis activities, and a full Chapter Investigation, providing an in-depth laboratory experience for all students. Supportive lab guides and worksheets

are available in multiple file formats, including as a downloadable **Lab Manual**. Simulations and Interactive Figures bring concepts from the print book to life, while Virtual Investigations offer students a unique perspective into places they've never been before.

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

The **Teacher's Edition** of *National Geographic Biology, 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 tools and strategies for impactful, effective classroom instruction. From the Unit Overview and Chapter Planners to Assessment Resources and Support for Diverse Learners, teachers will find materials to support student learning and data-driven instruction.

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

Florida Test Prep Workbook

Assessment Handbook

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.
2. 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.

3. Florida Test Prep Workbook - This manual provides practice tests designed to help students prepare for the Biology-1 End-Of-Course Assessment. 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 Biology, 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 offers the following Advanced Placement and accelerated program instructional materials:

1. *Honors: Biology: Concepts and Applications, 10e*, by Starr/Evers/Starr
2. *Advanced Placement: Biology: Unity and Diversity of Life 15e, AP® Ed* by Starr/Taggart/Evers/Starr

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

National Geographic Biology, Florida Edition is available in English and Spanish.

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

National Geographic Biology, 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 a number of 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.

At the end of each unit are guided STEM Engineering projects where students get to take the wheel as the problem-solver working on a real environmental issue. An Engineering Project may take several weeks to complete and involve careful planning and collaboration. In their role as engineers, students will put their math and technology skills to use, apply scientific knowledge and be creative.

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.