NATIONAL GEOGRAPHIC

Science

CORE
K–5

Start the Experience

NATIONAL GEOGRAPHIC
Science

A rare Suwannee cooter swims through clear Florida waters.

Promote science success as you share

The National Geographic Experience

- Immerse Students in the Nature of Science and Inquiry
- Unlock the Big Ideas in Science for All Learners
- Build Scientific and Content Literacy

NATIONAL GEOGRAPHIC
Science

Built for Your Classroom

Modular Life, Earth, and Physical Science units at the primary grades allow you to engage K–2 students in a wealth of active discovery and shared exploration through the use of Big Books and little books in English and Spanish. The program then grows with your students by transitioning to grade-level sets of Life, Earth, and Physical Science Student Books at grades 3–5. At every grade, **myNGconnect** gives students and teachers online access to the books and digital program resources.

Modular unit-based Classroom Sets at Grades K–2

English and Spanish Option

Life, Earth, and Physical Science Student Books at each Grade 3–5

Complete and Flexible

Integrated Print and Technology with Hands-On Inquiry

Program Authors

Randy Bell, Ph.D.
Associate Professor of Science Education, University of Virginia

Malcolm Butler, Ph.D.
Associate Professor of Science Education, University of South Florida

Kathy Cabe Trundle, Ph.D
Associate Professor of Science Education, Ohio State University

Nell Duke, Ed.D.
Co-Director of the Literacy Achievement Research Center, Professor of Teacher Education and Educational Psychology, Michigan State University

Judith Lederman, Ph.D.
Director of Teacher Education, Illinois Institute of Technology

David W. Moore, Ph.D.
Professor of Education, Arizona State University

Designed to Take Students Beyond

Students join leading National Geographic Scientists and Explorers in the field via special video segments launching each unit and at various points throughout the program. These valuable interactions provide students with real-life models of how scientists conduct studies and gain scientific knowledge, and provide an excellent opportunity to address STEM topics in the classroom.

Constance Adams
National Geographic Emerging Explorer, Space Architect

Stephon Alexander, Ph.D.
National Geographic Emerging Explorer, Theoretical Physicist

Thomas Taha Rassam Culhane
National Geographic Emerging Explorer, Urban Planner

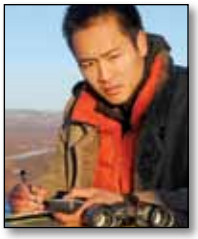
Luke Dollar, Ph.D
National Geographic Emerging Explorer, Conservation Scientist

Marianne Dyson
Science Writer and Former NASA Flight Controller,

Maria Fadiman, Ph.D.
National Geographic Emerging Explorer, Ethnobotanist

Beverly Goodman, Ph.D.
National Geographic Emerging Explorer Geo-Archaeologist

Madhulika Guhathakurta, Ph.D
NASA Astrophysicist



Albert Yu-Min Lin, Ph.D.
National Geographic Grantee Archaeologist

Greg Marshall
National Geographic Filmaker, Marine Biologist, Conservationist, Inventor

Mireya Mayor, Ph.D.
National Geographic Emerging Explorer Primatologist, Conservationist

Anissa Ramirez, Ph.D.
Physicist

Tim Samaras
National Geographic Emerging Explorer Severe-Storms Researcher

Tierney Thys, Ph.D.
National Geographic Emerging Explorer Marine Biologist, Filmaker

Katey Walter, Ph.D.
National Geographic Emerging Explorer Aquatic Ecologist, Biogeochemist

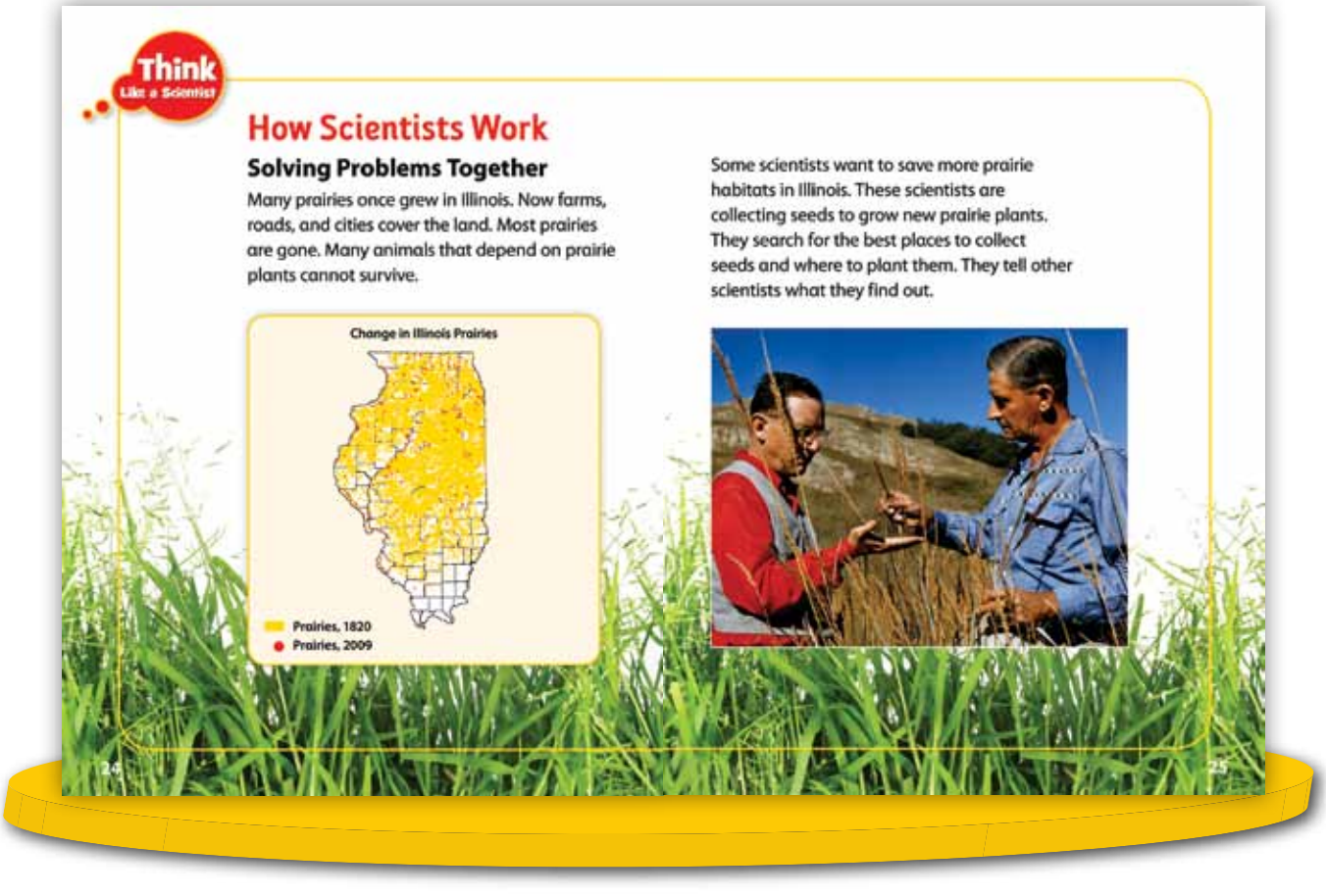
Connections to Real Scientists!

NATIONAL GEOGRAPHIC Science

Revealing the Nature of Science

In ***National Geographic Science,*** process skills build at each grade level to ensure a complete understanding of the Nature of Science. Throughout the program, process skills and the Nature of Science work together to help students think and act like scientists.

PROCESS SKILLS	Kindergarten OBSERVE	Grades 1 & 2 OBSERVE & INFER
Nature of Science	• Science knowledge is based on evidence. • Science knowledge can change based on new evidence.	• Science conclusions are based on observation and inference. • Science theories are based partly on things that cannot be observed.



Immerse Students in the Nature of Science and Inquiry

English and Spanish Available

Modeling Real Scientists in the Field

Grade 3

CLASSIFY

- There is often no single "right" answer in science.

Grade 4

PREDICT/HYPOTHESIZE

- Scientific theories provide the base upon which predictions and hypotheses are built.

Grade 5

DESIGN EXPERIMENTS

- There is no single, scientific method that all scientists follow.
- There are a number of ways to do science.

NATIONAL GEOGRAPHIC
Science

Address STEM Through Leveled, Hands-On Inquiry

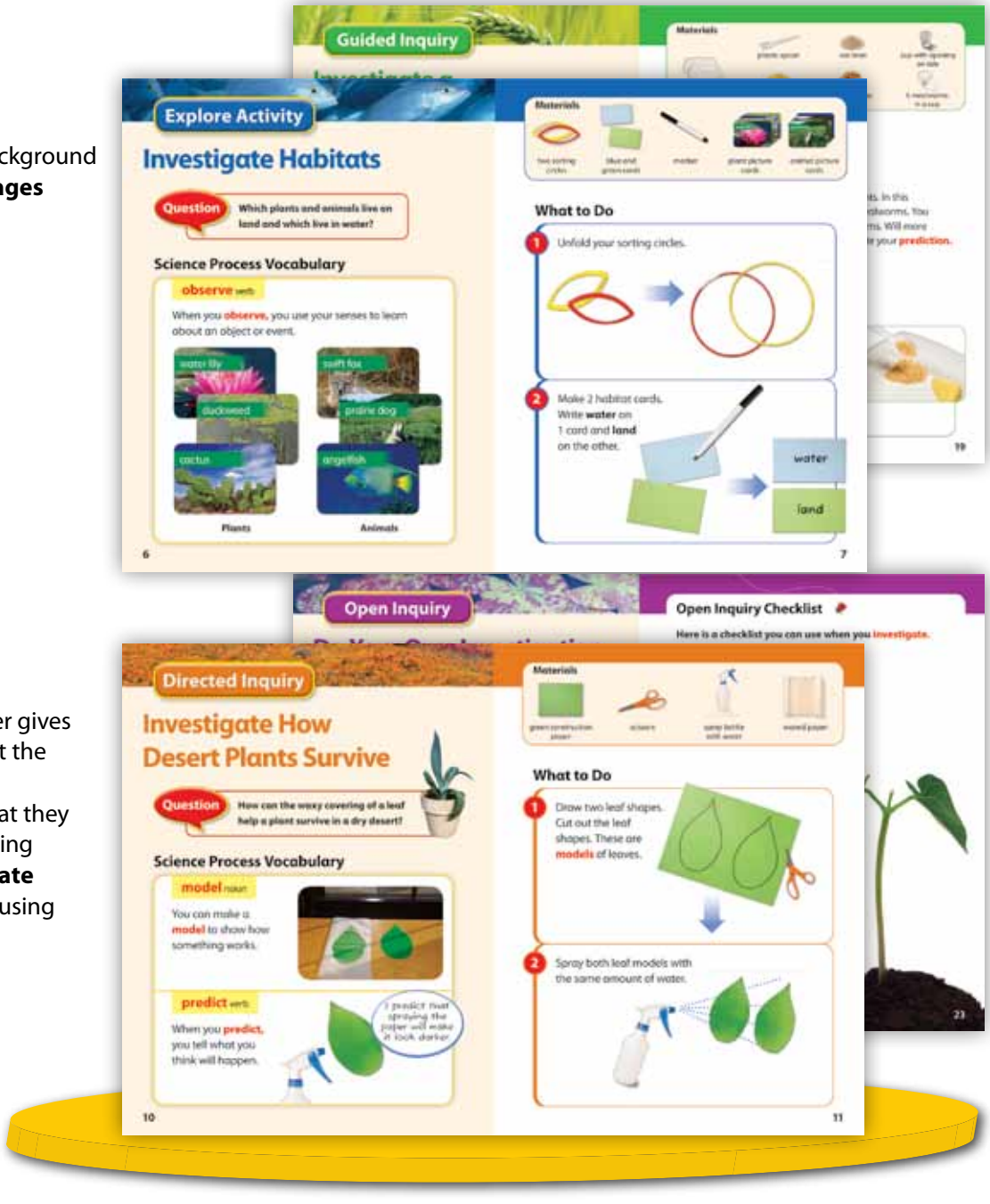
National Geographic Science provides students with abundant and relevant hands-on explorations to facilitate a thorough understanding of key science concepts. The four levels of inquiry in the program are designed to help students build confidence and competence in scientific thought and inquiry.

Explore Activity

The *Explore Activity* builds background for the unit and activity **engages** students as they **explore.**

Directed Inquiry

In *Directed Inquiry*, the teacher gives direct instruction throughout the activity. Students are given opportunities to **explain** what they have done, **elaborate** by asking further questions, and **evaluate** by answering questions and using a self-reflection rubric.



Immerse Students in the Nature of Science and Inquiry

Also Included

Science in a Snap!

offers quick investigations to activate understanding of science concepts.

Science Inquiry Kits provide all the materials required to complete inquiry activities.

Guided Inquiry

In *Guided Inquiry*, students become independent learners with guidance from the teacher. Students may manipulate variables, provide **explanations**, **elaborate** by asking further questions, and **evaluate** by answering questions and using a self-reflection rubric.

Open Inquiry

In *Open Inquiry*, students choose their own questions, create and carry out their own plans, collect and record their own data, look for patterns, and share that data. Students **explain** their results, **elaborate** by asking further questions, and **evaluate** by answering questions and using a self-reflection rubric.

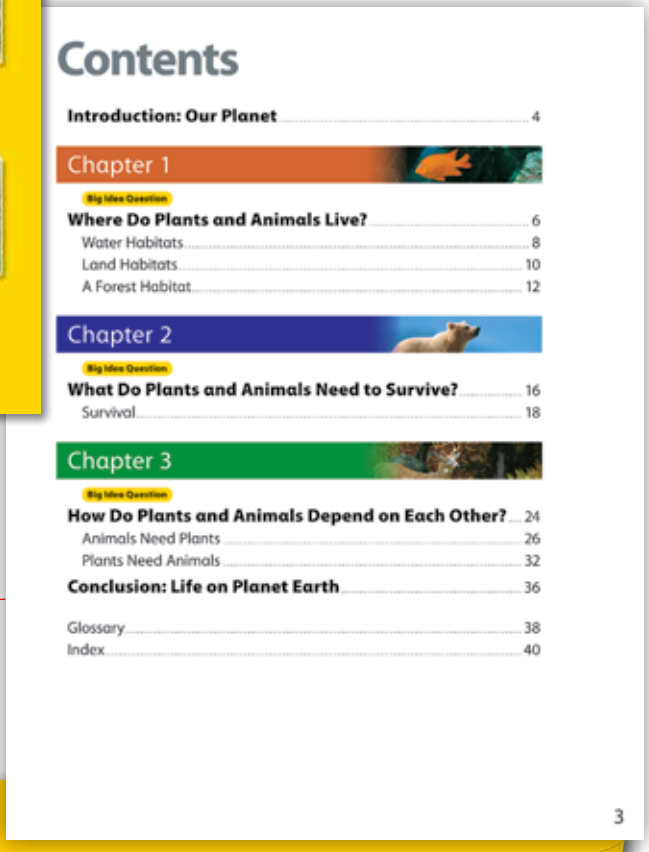
Inquiry eHelp

online inquiry support for teachers at myNGconnect.

Exploring Standards In Depth

At every level, ***National Geographic Science*** is targeted and focused on the Big Ideas in Science, inviting students to question, engage, actively explore, and understand standards-based Science content in English or Spanish.

At grades K–2, each unit is centered on three chapter **"Big Ideas"** that target instruction to the science standards.



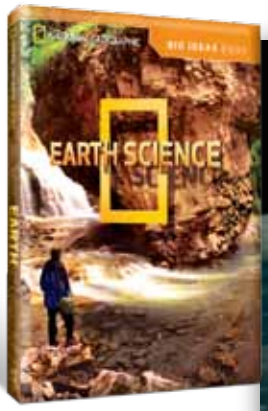
Moving through the unit, students delve deeper into understanding the chapter **Big Ideas** through collaborative and independent work.

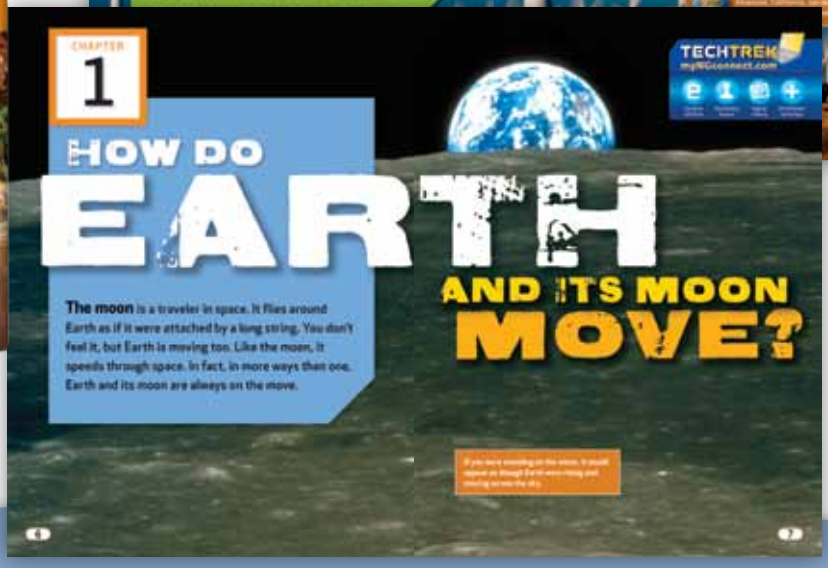
Unlock the Big Ideas in Science for All Learners

TECHTREK
myNGconnect.com

eEdition

At grades 3–5, each chapter presents a **"Big Idea"** that focuses instruction on the science standards.



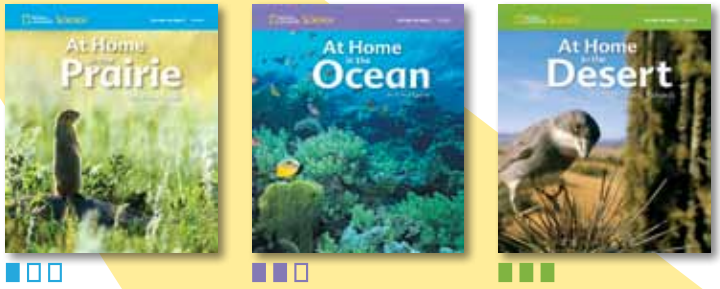


NATIONAL GEOGRAPHIC Science

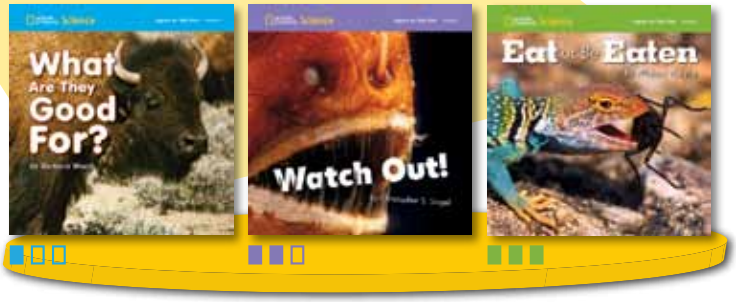
Providing Access to Content

National Geographic Science is designed to engage all learners in exploring and understanding the Big Ideas of Science. Focused instruction with built-in support helps you reach students of varying ability levels.

Become An Expert books for grades K–2 tie directly to the unit's Big Ideas and are presented at three reading levels, enabling teachers to effectively differentiate instruction.



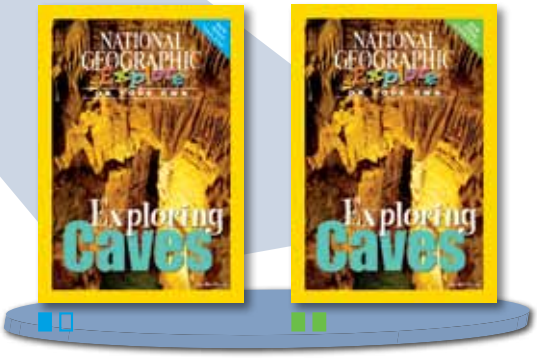
Leveled **Explore On Your Own** books carry forward the topical exploration at grades K–2, offering the flexibility to either extend learning in Science, or to provide connected nonfiction reading in your Language Arts block.



Online Interactives

In the **Become An Expert** section of each chapter in grades 3–5, students apply what they've learned through concrete examples found throughout our world.

Pioneer and Pathfinder editions of the **Explore On Your Own** books for grade 3–5 provide the same content at two different reading levels, encouraging all students to read independently.



NATIONAL GEOGRAPHIC
Science

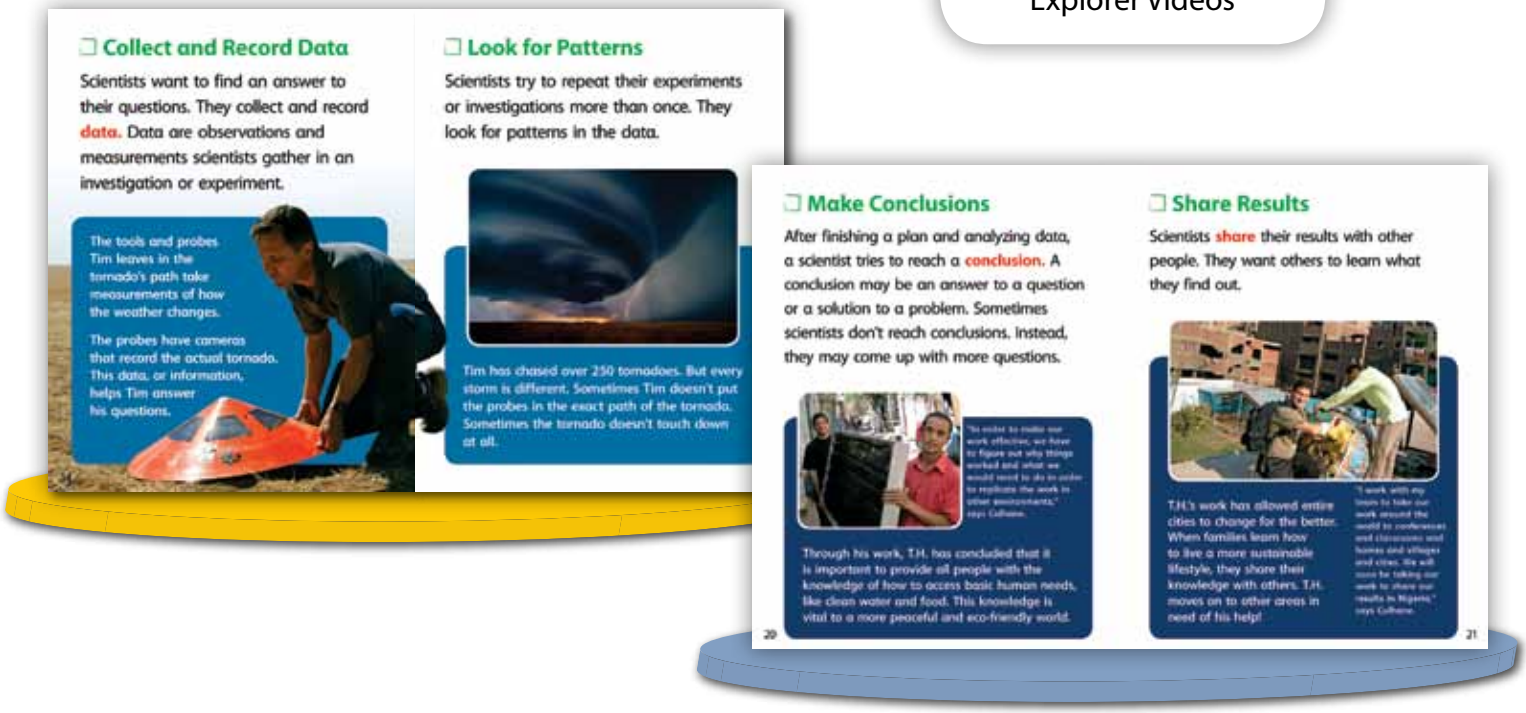
Instilling a Legacy of Scientific Literacy

Real-life models of National Geographic Explorers and scientists in the field help students to develop scientific literacy and better understand the Nature of Science.

Students learn that Science is:

- A way of knowing
- Empirically based and consistent with evidence
- Subject to change when new evidence presents itself
- A creative process

Explorer Videos



Supporting Literacy Through Science

National Geographic Science also builds literacy skills to help students succeed across content areas.

Reading Comprehension

Teacher Edition support at K–2 includes opportunities to work with four comprehension strategies to ensure content learning is deep and lasting.

- Preview and Predict
- Monitor and Fix Up
- Make Inferences
- Sum Up

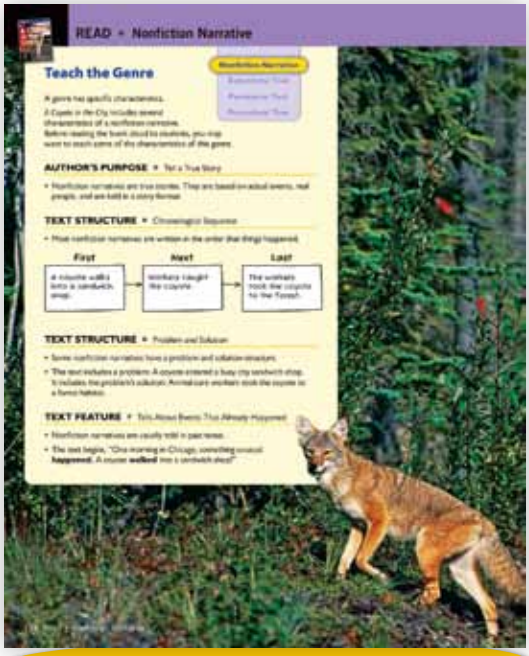
At Grades 3–5, these four strategies are used to reinforce content learning.

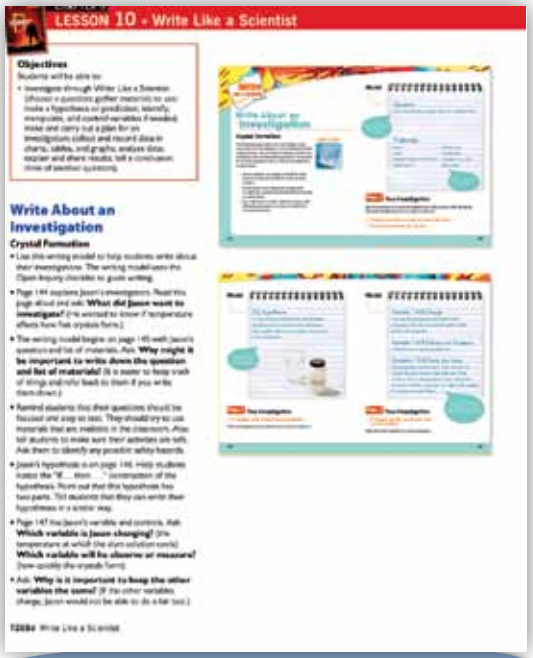
Expository Writing

Instruction at K–2 includes ample opportunity for students to express their understanding in four modes of scientific writing.

- Nonfiction Narrative
- Expository Nonfiction
- Procedural Text
- Persuasive Text

At Grades 3–5, students are given opportunities to write like a scientist by practicing procedural writing in the Science Inquiry and Writing Book.





NATIONAL GEOGRAPHIC Science

Integrated Technology

myNGconnect for Students

The Student Home Page provides easy access to an array of technology tools designed to support and enhance the student's learning.

Student eEditions

- **Big Ideas, Student Inquiry Books, Become an Expert,** and **Explore On Your Own** books available online
- Highlighting, note-taking and search tools built-in, along with Read-to-Me audio support.

NG Digital Library

- Access to videos, images and simulations
- Easy-to-use search and topic-specific media packages.

Vocabulary Games

- Highly-interactive student games with rewards to teach vocabulary from units at K–2 and chapters at 3–5.

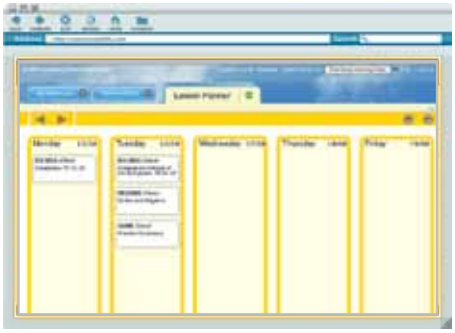
Enrichment Activities

- Interactive resources to expand science concepts presented in the units.



myNGconnect for Teachers

The Teacher Home Page provides the ability to easily find and manage program technology resources and provides online access to the full array of student and teacher materials.



Online Lesson Planner

- Tailor instruction to the amount of time you have each day
- Plan group and independent work
- Print plans at-a-glance or in detail.

Online Professional Development

- Resources to enhance lesson delivery and encourage best practices.

Teacher eEdition

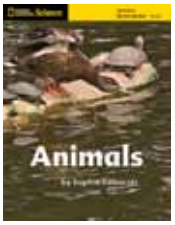
- Online edition with embedded links to Unit Launch Videos, Assessment Handbook, and Learning Masters.

Classroom Presentation Tool

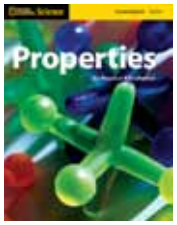
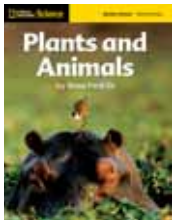
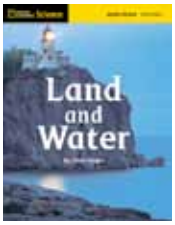
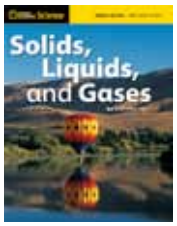
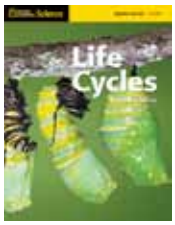
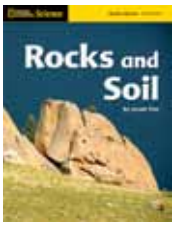
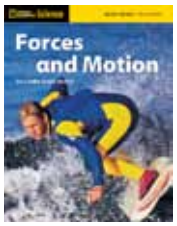
- Allows teachers to project all print materials and visuals for a lesson.

NATIONAL GEOGRAPHIC
Science

Kindergarten Units

Life Science	Earth Science	Physical Science
 	 	 

Grades 1–2 Modular Units

Life Science	Earth Science	Physical Science
		
		
		
		



Life, Earth, and Physical Science for Grades 3–5

Grade 3

Grade 4

Grade 5

Program Components

	Kindergarten	Grades 1–2	Grade 3	Grade 4	Grade 5
Big Ideas Big Books	■ ■	■ ■			
Big Ideas Student Books		■ ■	■ ■	■ ■	■ ■
Science Inquiry Big Books	■ ■				
Science Inquiry Student Books		■ ■			
Science Inquiry and Writing Student Books			■ ■	■ ■	■ ■
Become An Expert Books	■	■			
Explore On Your Own Books	■	■	■	■	■
Teacher's Editions	■ ■	■ ■	■ ■	■ ■	■ ■
Big Ideas & Vocabulary Cards	■	■			
Write About Big Books	■ ■	■ ■			
Learning Masters	■	■	■	■	■
Assessment Handbook	■	■	■	■	■
ExamView® CD-ROM		■	■	■	■
Science Methods and Process Skills Big Book and Teacher's Guide	■	■	■	■	■
Science Inquiry Kits	■	■	■	■	■
Science Inquiry Safety Kits	■	■	■	■	■
Science Inquiry Kit Consumables Refill	■	■	■	■	■
myNGconnect Technology	■	■	■	■	■

■ Spanish available

NATIONAL GEOGRAPHIC
Science

Promote science success as you share

The National Geographic Experience

- Immerse Students in the Nature of Science and Inquiry
- Unlock the Big Ideas in Science for All Learners
- Build Scientific and Content Literacy
- Available in Spanish
- Address STEM Inquiry

ISBN-13: 978-11338-43702
ISBN-10: 11338-43700
90000
9 781133 843702
JAN/13

NATIONAL GEOGRAPHIC LEARNING | CENGAGE Learning®

888-915-3276
NGL.Cengage.com