twig SCIENCE

Elementary

Three-Dimensional Science Leveled Readers

ENGAGING | HIGH QUALITY | MAGAZINE FORMAT





imagine learning

Apply informational text strategies during science or ELA time

Each leveled reader helps students unpack a new phenomenon!

Student tested, teacher approved!



All with 32 pages in full color

The Adventure Starts Here!

Twig Science's high-interest, magazine-style leveled readers give students the opportunity to explore ideas in greater depth at their own pace while meeting real-world scientists and engineers. They're available at four levels—On-Level, Above-Level, Below-Level, and English Learner—and are ideal for use in differentiated small-group reading time.

All our leveled readers are also available in Spanish. Twig Science en Español readers recognize the validity of using a primary language to promote acquisition of a second language. The leveled readers are available in both print and digital formats.





Wiley Blevins

An author and reading specialist, Wiley has written several books on reading instruction and teaching students to read informational text. He is a cross-curricular expert with extensive experience in English Language Arts and English Learners, including graduate work in education at Harvard University, elementary classroom teaching, and professional development in the United States, Latin America, and Asia.

Three-Chapter Structure

1 Exploring Phenomena

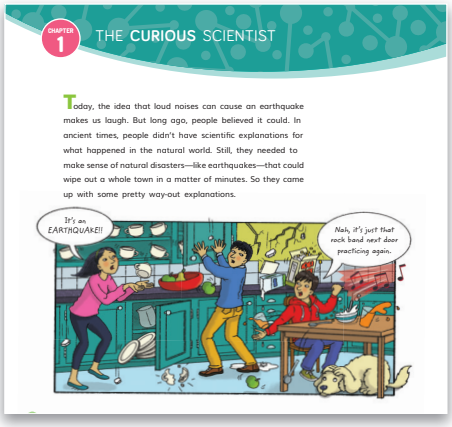
Build curiosity about a phenomenon. Students seek answers to explain what they observe happening in the world.

2 STEM Career

Introduce students to professionals working in STEM careers in these fascinating interviews with real scientists and engineers.

3 Real-World Connection

Connect students' learning to the real world, showing why they should care about the phenomenon and how it affects them.



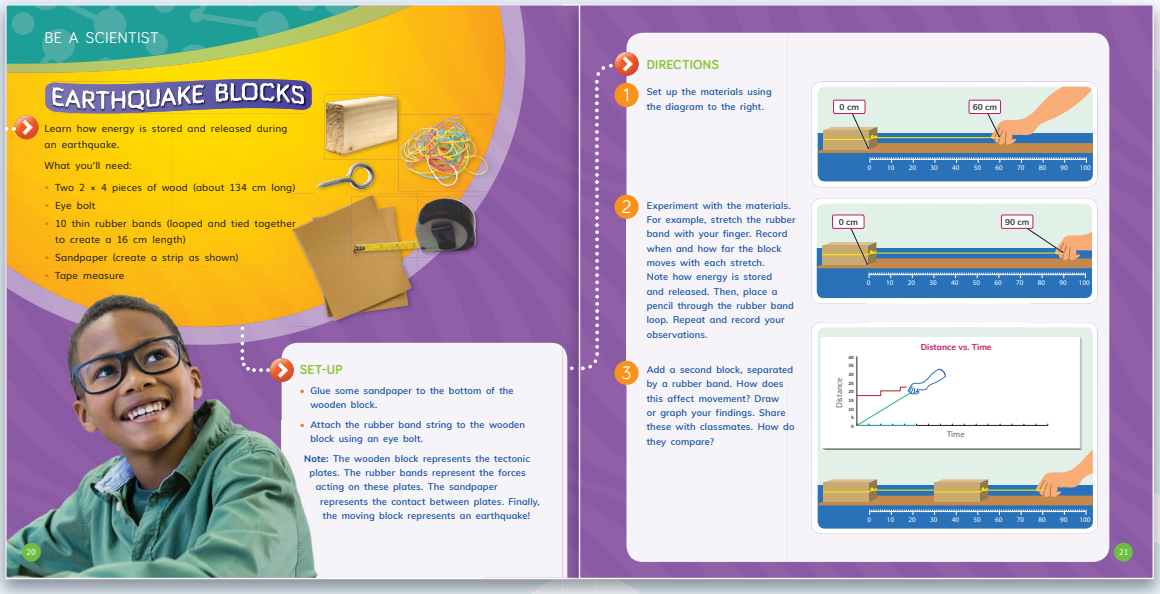




Engaging STEM Tools and Experiences

Be a Scientist Micro-Labs

Be a Scientist features encourage students to take part in real scientific experiments and investigations in the form of optional micro-labs. These activities can be done without specialist equipment, and student-facing instructions are provided.



Visual Glossary

Each leveled reader features a visual glossary that provides definitions for key terms and scientific vocabulary for additional Tier 2 and Tier 3 vocabulary support.



Cool Tools, On the Job, and A Day in the Lab

Follow in the footsteps of scientists and engineers carrying out important work in real life.

Discover the equipment and skills the scientists interviewed need to use to do their jobs.



Note-Taking and Evidence Guide

Note-taking and evidence guides can be used to record information such as key words and ideas, questions, drawings, and summaries to build note-taking capacity while interacting with the leveled readers.





Instructional Approach

All informational text standards are addressed throughout the leveled readers. Lessons provide support for first and second reads of each chapter, and routines for transfer are highlighted, alongside key strategies allowing students to decode and unpack text.

First Read

- Introduce Informational Text
- Preview the Text
- Prepare
- Vocabulary Routine
- Read
- Build Content Knowledge
- Ask Text-Dependent Questions
- Assess Conversations

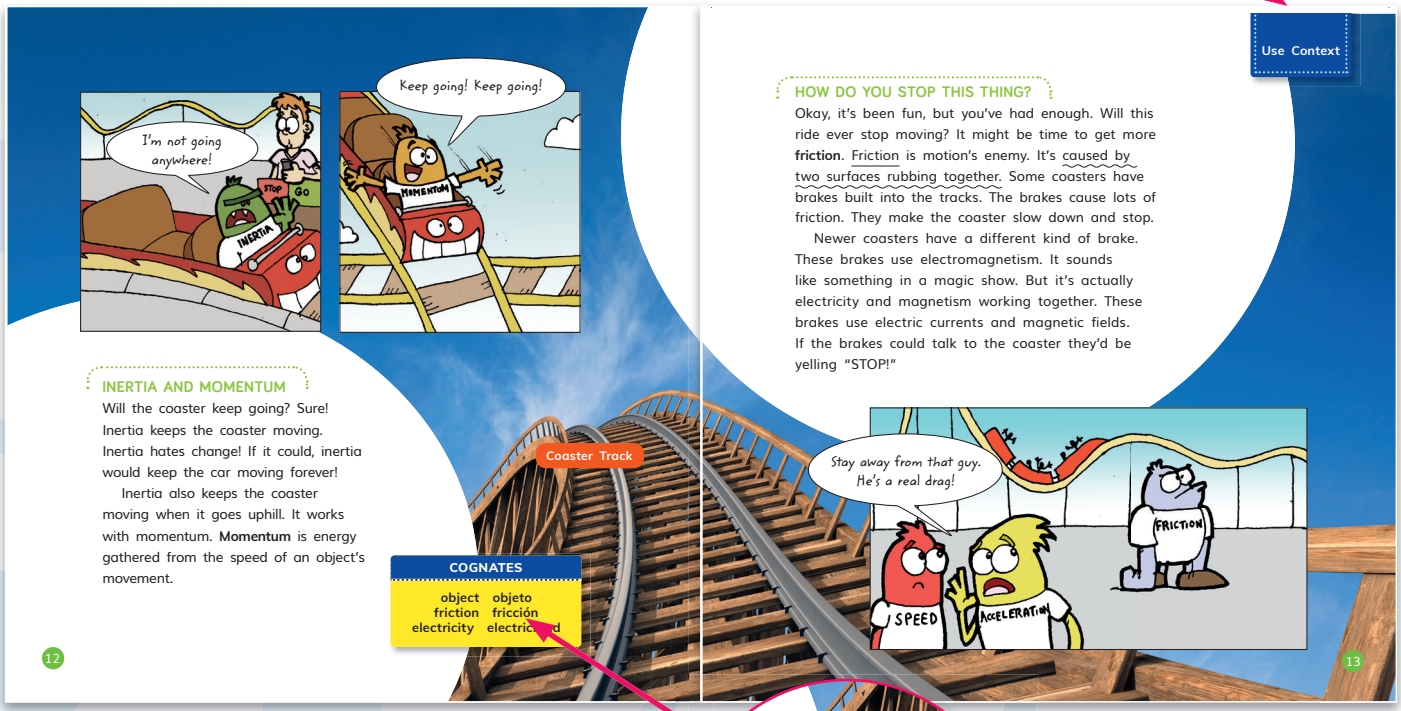
Second Read

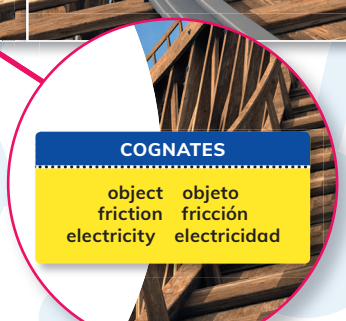
- Revisit the Text
- Focus on Text Feature or Structure
- Focus on Vocabulary
- Connect to Writing—Read Across Texts
- Use Graphic Organizers

Additional Strategies

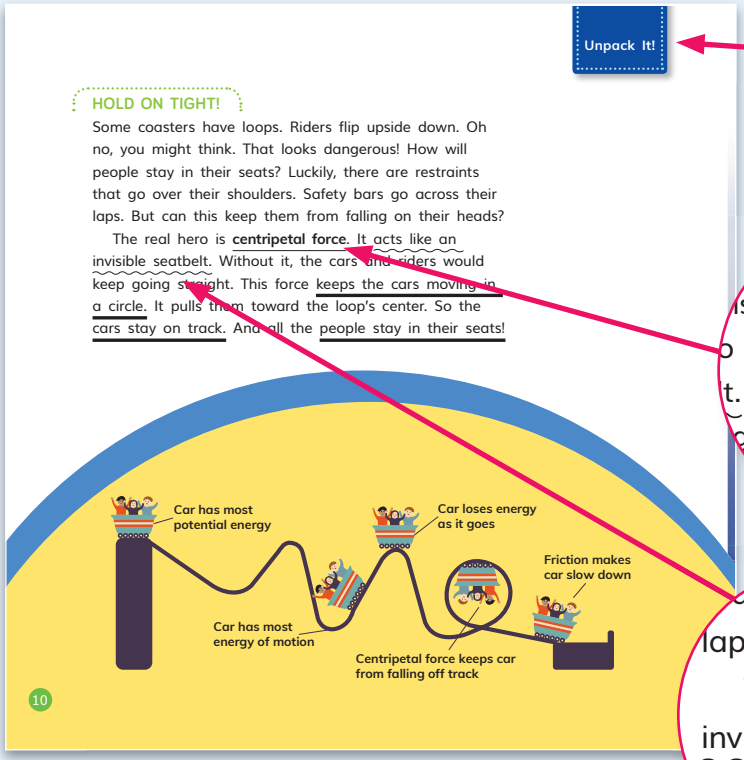
- Make Word Banks
- Use Pictures and Texts to Build Meaning
- Micro-Labs
- Extend the Conversation
- Focus on Fluency
- Synthesize Information
- Monitor English Language Proficiency

Each lesson includes multiple integrated language routines and strategies.





English Learner readers also highlight Spanish language cognates to support English Language Learners.





Below-Level and English Learner leveled readers are annotated to highlight comprehension strategies, vocabulary routines, and support to synthesize information.

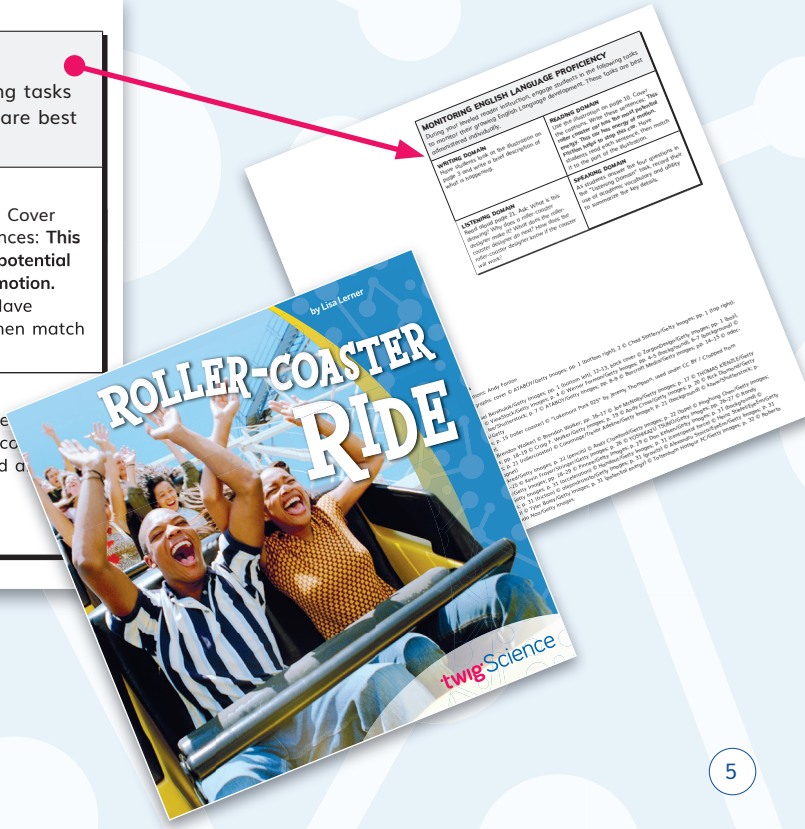
ELL Tasks

Each back cover and additional ELL lessons provide easy-to-administer language acquisition tasks for monitoring proficiencies and to build stamina.

MONITORING ENGLISH LANGUAGE PROFICIENCY

During your leveled reader instruction, engage students in the following tasks to monitor their growing English Language development. These tasks are best administered individually.

WRITING DOMAIN Have students look at the illustration on page 3 and write a brief description of what is happening.	**READING DOMAIN** Use the illustration on page 10. Cover the captions. Write these sentences: **This roller coaster car has the most potential energy. This car has energy of motion. Friction helps to stop this car.** Have students read each sentence, then match it to the part of the illustration.
LISTENING DOMAIN Read aloud page 21. Ask: *What is this drawing? Why does a roller-coaster designer make it? What does the roller-coaster designer do next? How does the roller-coaster designer know if the coaster will work?*	**SPEAKING DOMAIN** As students answer the four que… the "Listening Domain" task, reco… use of academic vocabulary and a… to summarize the key details.



Inside back cover of ELL leveled reader

Student Support Features

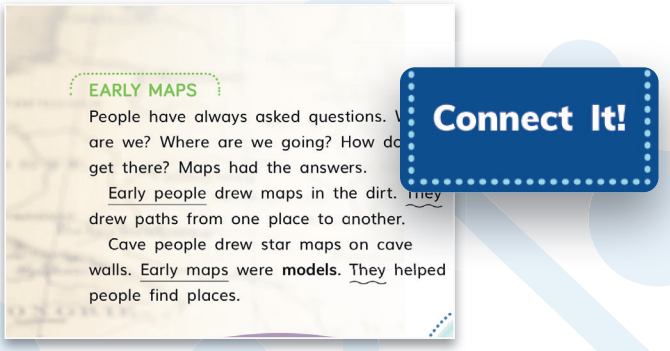


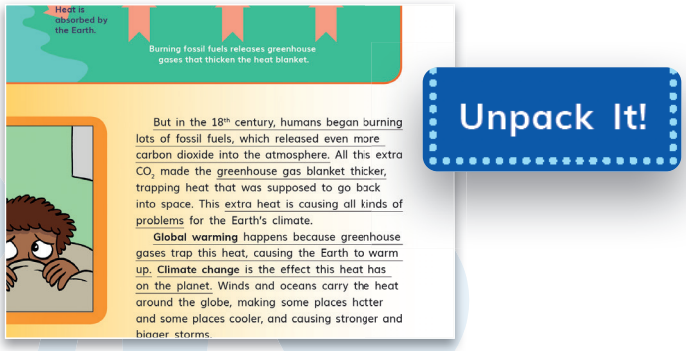
Multiple supports are provided in the text to assist with helping students access the vocabulary presented and confidently tackle complex sentences, building overall understanding of key ideas presented in the chapter.

How to Use Lesson Supports

Each leveled reader lesson support is formatted to illustrate how the support should be used. Hard underlines are used to highlight the core idea of each support feature, while rippled underlines show the context in which the support should be applied.

In this example from a Connect It support, the core idea is "problems with fossil fuels," and the context is examples of these problems. This means you can guide students to connect the core idea to the contextual examples.





Unpack It

Students are guided to unpack complex sentences and paragraphs, focusing on meaning, using the underlined portions of challenging texts to help them break apart and simplify complex ideas.

Connect It

Some students struggle with connecting ideas within a paragraph due to the use of pronouns or the physical separation of ideas within the paragraph. The underlined words and phrases are used to connect these ideas together.

Read Together

The micro-lab is presented as a read together experience. It is read to students and then repeated back as an echo-read. Students are guided to restate each step with partners to confirm understanding before completing the lab.

Summarize

One metacognitive strategy that good readers use to check their comprehension is stopping and summarizing what an author has written. Students are asked to summarize—to restate in their own words what the most important ideas are in the text so far.

Text Structure

Highlighted examples of clear text structures and signal words indicate these structures. Students are taught how to organize their thinking about a text and better remember text details.

Cognates

These highlight similar words in Spanish and English to help accelerate vocabulary building.

Define It

Definitions of key academic words are provided to aid understanding when they are not accompanied by sufficient context clues.

Iconography

Additional imagery is presented in-line with text to support student comprehension of key vocabulary.

Visual Glossary

The visual glossary can be referred to before, during, and after reading to reinforce key content vocabulary.

Use Context

Students are guided to use context clues to figure out the meanings of new words while reading. Frequently reinforcing the strategy builds this independent reading habit.

Labels

Throughout the text, labels on photos and illustrations connect visuals to words.

Cause/Effect

Students are guided to explore cause-and-effect relationships discussed in the text.

Idiom

English idioms are highlighted to prevent student confusion.

Multiple Meaning

Words whose meaning is dependent on context are highlighted to aid comprehension.

Synonyms

Different words can share the same meaning. This support helps students with the vocabulary found in the text.

Visualize

Students are guided to create visual models based on text descriptions

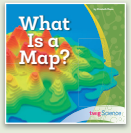
Greek Roots

Students are guided to identify Greek and Latin roots that can be used to determine the meanings of words in the text.



Leveled Readers Overview

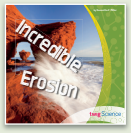
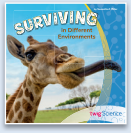
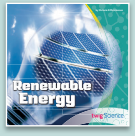


Reader Title and Phenomenon	Chapter 1 *Exploring Phenomena*	Chapter 2 *STEM Career*	Chapter 3 *Real-World Connection*
Kindergarten | Guided Reading Range: C–G			
 **The Friendly Kakapo** ***Phenomenon:*** *Plant and Animal Needs*	The World's Heaviest Parrot	Meet an Ecologist: Dr. Jacqueline Beggs	Save the Animals!
 **Pushes and Pulls** ***Phenomenon:*** *Pushes and Pulls*	Push or Pull?	Meet a Scientist: Dr. Vijay Tymms	Can You Move It?
 **What's the Weather?** ***Phenomenon:*** *Weather Patterns*	What Is Weather?	Meet a Meteorologist: Amy Campbell	Why Is Weather Important?
 **Animal Builders** ***Phenomenon:*** *Plants and Animals Change Their Environments*	Why Animals Build	Meet an Animal Researcher: Mark Elliott	Beavers: Good or Bad?
Grade 1 | Guided Reading Range: D–M			
 **Our Leafy Friends** ***Phenomenon:*** *Parts of a Plant Structure and Function*	Plants: What We Know	Meet a Plant Hunter: Tom Hart Dyke	Grow, Grow, Grow!
 **Animal Talk** ***Phenomenon:*** *Animal Communication Structure and Function*	Animal Sounds	Meet an Animal Researcher: Dr. Con Slobodchikoff	Can We Talk to Animals?
 **Skyscrapers** ***Phenomenon:*** *Shadows and Light*	Big Building, Big Problems	Meet a Structural Engineer: Roma Agrawal	New Ideas for Big Buildings
 **Day and Night** ***Phenomenon:*** *Patterns of the Sun, Moon, and Stars*	Day and Night: What We Once Believed	Meet an Astronomer: Susan Murabana	When to Fast During Ramadan
Grade 2 | Guided Reading Range: G–O			
 **What Is a Map?** ***Phenomenon:*** *Modeling the Land and Water on Earth*	Early Mapmakers	Meet a Cartographer: Tara Wallace	Modern Maps
 **What Is It Made of?** ***Phenomenon:*** *Matter and Materials*	The Blacksmith	Meet a Materials Scientist: Dr. Young-hye Na	Super Materials

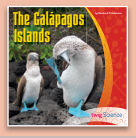


Explore different phenomena, meet scientists working in fascinating STEM careers, and make real-world connections in each leveled reader.

Micro-Lab *Be a Scientist*	**Level**	**ISBN**	**Level**	**ISBN**
Make a Bird Feeder	**On-Level**	978-1-78916-000-0	**Below-Level**	978-1-78916-029-1
	Above-Level	978-1-78916-058-1	**English Language Learners**	978-1-78916-087-1
	Spanish	978-1-78916-492-3		
Make a Kite	**On-Level**	978-1-78916-001-7	**Below-Level**	978-1-78916-030-7
	Above-Level	978-1-78916-059-8	**English Language Learners**	978-1-78916-088-8
	Spanish	978-1-78916-493-0		
Make a Weather Vane	**On-Level**	978-1-78916-002-4	**Below-Level**	978-1-78916-031-4
	Above-Level	978-1-78916-060-4	**English Language Learners**	978-1-78916-089-5
	Spanish	978-1-78916-494-7		
Make a Dam	**On-Level**	978-1-78916-003-1	**Below-Level**	978-1-78916-032-1
	Above-Level	978-1-78916-061-1	**English Language Learners**	978-1-78916-090-1
	Spanish	978-1-78916-495-4		
CD Seeds	**On-Level**	978-1-78916-004-8	**Below-Level**	978-1-78916-033-8
	Above-Level	978-1-78916-062-8	**English Language Learners**	978-1-78916-091-8
	Spanish	978-1-78916-496-1		
Make a Duck Call	**On-Level**	978-1-78916-005-5	**Below-Level**	978-1-78916-034-5
	Above-Level	978-1-78916-063-5	**English Language Learners**	978-1-78916-092-5
	Spanish	978-1-78916-497-8		
Moving Shadows	**On-Level**	978-1-78916-006-2	**Below-Level**	978-1-78916-035-2
	Above-Level	978-1-78916-064-2	**English Language Learners**	978-1-78916-093-2
	Spanish	978-1-78916-498-5		
Day and Night	**On-Level**	978-1-78916-007-9	**Below-Level**	978-1-78916-036-9
	Above-Level	978-1-78916-065-9	**English Language Learners**	978-1-78916-094-9
	Spanish	978-1-78916-499-2		
Make a Globe	**On-Level**	978-1-78916-008-6	**Below-Level**	978-1-78916-037-6
	Above-Level	978-1-78916-066-6	**English Language Learners**	978-1-78916-095-6
	Spanish	978-1-78916-588-3		
Boat-Building Challenge	**On-Level**	978-1-78916-009-3	**Below-Level**	978-1-78916-038-3
	Above-Level	978-1-78916-067-3	**English Language Learners**	978-1-78916-096-3
	Spanish	978-1-78916-589-0		

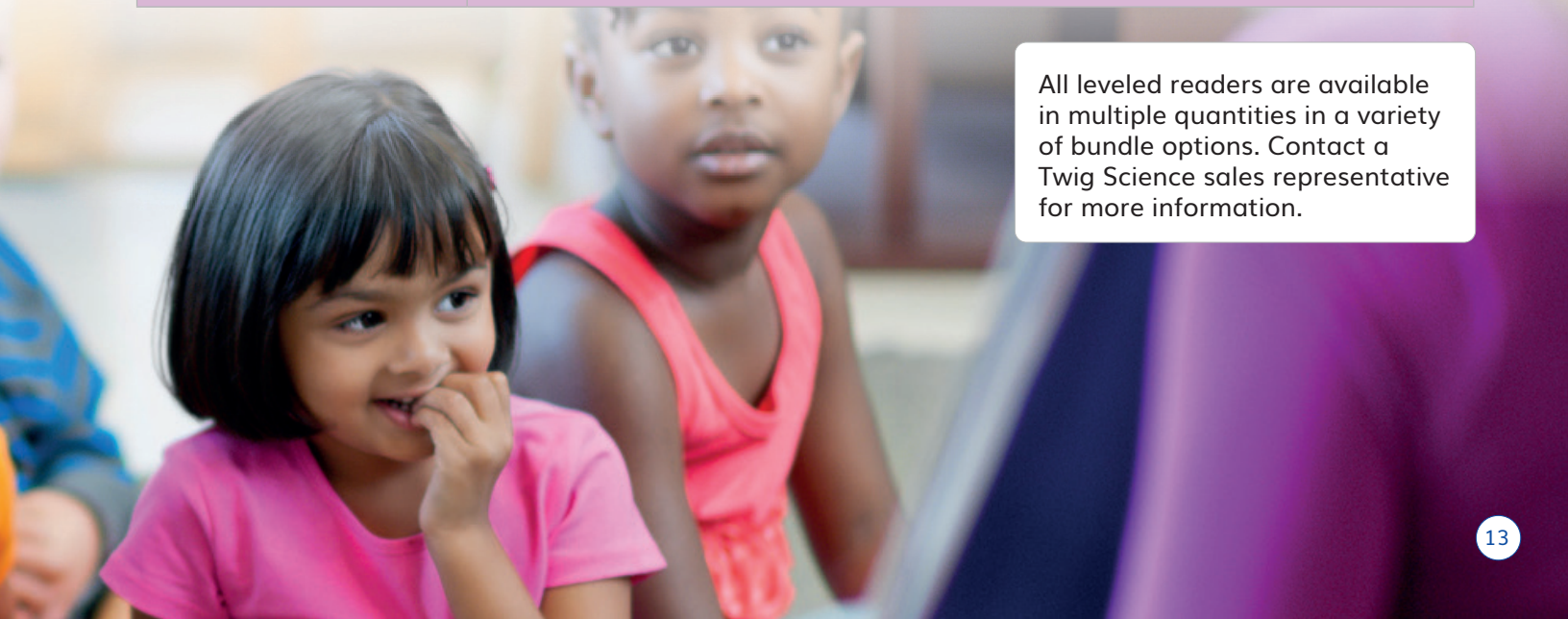
Reader Title and Phenomenon	Chapter 1 *Exploring Phenomena*	Chapter 2 *STEM Career*	Chapter 3 *Real-World Connection*
Grade 2 continued...			
 **Incredible Erosion** ***Phenomenon:*** *Earth: Features and Processes*	Where Did That Rock Come From?	Meet a Coastal Geologist: Jeff Williams	How Do We Stop Coastal Erosion?
 **Where Are the Bees?** ***Phenomenon:*** *Biodiversity and Ecosystems*	Why Are Bees Important?	Meet a Conservationist: Nicola Seitz	Save Our Bees!
Grade 3 | Guided Reading Range: K–R			
 **Roller-Coaster Ride** ***Phenomenon:*** *Forces and Interactions*	How Do Roller Coasters Work?	Meet a Roller-Coaster Designer: Prof. Brendan Walker	Roller Coasters of the Future
 **Life Cycles** ***Phenomenon:*** *Life Cycles and Traits*	What Is a Life Cycle?	Meet a Biologist: Dr. Julia Schroeder	Family Picture: Plants and Animals
 **Surviving in Different Environments** ***Phenomenon:*** *Ecosystems; Survival and Adaptation*	Who Lives Here?	Meet an Ecologist: Dr. Marlene Zuk	A Changing World
 **Weather Hazards** ***Phenomenon:*** *Weather and Climate*	What's the Weather?	Meet an Environmental Scientist: Dr. Zoe Harris	The Power of Forecasts
Grade 4 | Guided Reading Range: N–V			
 **The Science of Baseball** ***Phenomenon:*** *Energy*	The History of Baseball	Meet a Physicist: Dr. Alan Nathan	How to Cheat at Baseball
 **Renewable Energy** ***Phenomenon:*** *Natural Resources; Energy and Fuel*	Energy and Fuel	Meet an Energy Analyst: John Rogers	A Cleaner and Cooler Planet!
 **Sculpting Landscapes** ***Phenomenon:*** *Earth Processes; Weathering and Erosion*	How Old Is the Grand Canyon?	Meet a Geologist: Wayne Ranney	Refreezing the Arctic
 **Shake, Rattle, and Roll** ***Phenomenon:*** *Earth's Features and Processes*	The Curious Scientist	Meet a Seismologist: Dr. Rebecca Bell	Earthquake-Proofing: What's the Cost?
 **Amazing Animal Senses** ***Phenomenon:*** *Animal Senses; Structure and Function*	Animal Senses	Meet an Animal Behavior Scientist: Dr. Signe Brinkløv	Sense-Inspired Tech

Micro-Lab *Be a Scientist*	**Level**	**ISBN**	**Level**	**ISBN**
Investigating Soil	**On-Level**	978-1-78916-010-9	**Below-Level**	978-1-78916-039-0
	Above-Level	978-1-78916-068-0	**English Language Learners**	978-1-78916-097-0
	Spanish	978-1-78916-590-6		
Smell Like a Bee	**On-Level**	978-1-78916-011-6	**Below-Level**	978-1-78916-040-6
	Above-Level	978-1-78916-069-7	**English Language Learners**	978-1-78916-098-7
	Spanish	978-1-78916-503-6		
Magnetic Coaster	**On-Level**	978-1-78916-012-3	**Below-Level**	978-1-78916-041-3
	Above-Level	978-1-78916-070-3	**English Language Learners**	978-1-78916-099-4
	Spanish	978-1-78916-504-3		
Make a Butterfly Feeder	**On-Level**	978-1-78916-013-0	**Below-Level**	978-1-78916-042-0
	Above-Level	978-1-78916-071-0	**English Language Learners**	978-1-78916-100-7
	Spanish	978-1-78916-593-7		
Cactus Spines	**On-Level**	978-1-78916-014-7	**Below-Level**	978-1-78916-043-7
	Above-Level	978-1-78916-072-7	**English Language Learners**	978-1-78916-101-4
	Spanish	978-1-78916-594-4		
Make a Thermometer	**On-Level**	978-1-78916-015-4	**Below-Level**	978-1-78916-044-4
	Above-Level	978-1-78916-073-4	**English Language Learners**	978-1-78916-102-1
	Spanish	978-1-78916-595-1		
Energy Transfer	**On-Level**	978-1-78916-016-1	**Below-Level**	978-1-78916-045-1
	Above-Level	978-1-78916-074-1	**English Language Learners**	978-1-78916-103-8
	Spanish	978-1-78916-596-8		
Make a Windmill	**On-Level**	978-1-78916-017-8	**Below-Level**	978-1-78916-046-8
	Above-Level	978-1-78916-075-8	**English Language Learners**	978-1-78916-104-5
	Spanish	978-1-78916-597-5		
Acid Rain and Rocks	**On-Level**	978-1-78916-018-5	**Below-Level**	978-1-78916-047-5
	Above-Level	978-1-78916-076-5	**English Language Learners**	978-1-78916-105-2
	Spanish	978-1-78916-598-2		
Earthquake Blocks	**On-Level**	978-1-78916-019-2	**Below-Level**	978-1-78916-048-2
	Above-Level	978-1-78916-077-2	**English Language Learners**	978-1-78916-106-9
	Spanish	978-1-78916-599-9		
Can You Taste Without Your Nose?	**On-Level**	978-1-78916-020-8	**Below-Level**	978-1-78916-049-9
	Above-Level	978-1-78916-078-9	**English Language Learners**	978-1-78916-107-6
	Spanish	978-1-78916-600-2		

Reader Title and Phenomenon	Chapter 1 *Exploring Phenomena*	Chapter 2 *STEM Career*	Chapter 3 *Real-World Connection*
Grade 5 | Guided Reading Range: P–Z			
 **Absolute Zero** ***Phenomenon:*** *Matter: Structure and Properties*	The Race for Absolute Zero	Meet a Materials Scientist: Dr. Ruoyi Zhou and Dr. Paul Boldrin	Reaching Absolute Zero
 **The Galápagos Islands** ***Phenomenon:*** *Ecosystems: Matter and Energy*	The Galápagos	Meet an Ecologist: Dr Richard Mankin	How Do We Protect Ecosystems?
 **Where's the Water?** ***Phenomenon:*** *Earth: Systems and Interactions*	Water, Water, Everywhere	Meet a Water Scientist: Dr. Staci Goetz, Dr. Kelly Mahoney, and Dr. Mimi Hughes	The Freshwater Crisis
 **Looking to the Stars and Beyond** ***Phenomenon:*** *Earth, Space, and Stars*	Curious About the Night Sky	Meet an Astrophysicist: Dr. Tessa Baker	Planet Hunters
Grade 6 | Guided Reading Range: Q–Z			
 **It's Alive!** ***Phenomenon:*** *Body Systems and Interactions*	It's Alive?	Meet a Biomimicry Scientist: Dr. Alexandra Ralevski	Biomimicry: Using Nature's Best Ideas
 **What Causes Weather?** ***Phenomenon:*** *Weather and Climate*	Weather Watch: California	Meet a Meteorologist: Brian Garcia	Wildfire!
 **Biomes** ***Phenomenon:*** *Ecosystems: Growth and Development*	What Is a Biome?	Meet an Ecologist: Dr. Samraat Pawar	The Migration Mystery
 **Global Warming** ***Phenomenon:*** *Weather and Climate: Human Impact on the Environment*	What Is Climate Change?	Meet a Climate Change Scientist: Prof. Joanna D. Haigh	What Can We Do?



Micro-Lab *Be a Scientist*	**Level**	**ISBN**	**Level**	**ISBN**
Chemical Ice Cream Machine	**On-Level**	978-1-78916-021-5	**Below-Level**	978-1-78916-050-5
	Above-Level	978-1-78916-079-6	**English Language Learners**	978-1-78916-108-3
	Spanish	978-1-78916-601-9		
Modeling a Food Web	**On-Level**	978-1-78916-022-2	**Below-Level**	978-1-78916-051-2
	Above-Level	978-1-78916-080-2	**English Language Learners**	978-1-78916-109-0
	Spanish	978-1-78916-450-3		
Make a Bottled Cloud	**On-Level**	978-1-78916-023-9	**Below-Level**	978-1-78916-052-9
	Above-Level	978-1-78916-081-9	**English Language Learners**	978-1-78916-110-6
	Spanish	978-1-78916-602-6		
Make a Constellation Viewer	**On-Level**	978-1-78916-024-6	**Below-Level**	978-1-78916-053-6
	Above-Level	978-1-78916-082-6	**English Language Learners**	978-1-78916-111-3
	Spanish	978-1-78916-603-3		
How Much Air Do You Need?	**On-Level**	978-1-78916-025-3	**Below-Level**	978-1-78916-054-3
	Above-Level	978-1-78916-083-3	**English Language Learners**	978-1-78916-112-0
	Spanish	978-1-78916-604-0		
Be a Scientist: DIY Barometer	**On-Level**	978-1-78916-026-0	**Below-Level**	978-1-78916-055-0
	Above-Level	978-1-78916-084-0	**English Language Learners**	978-1-78916-113-7
	Spanish	978-1-78916-605-7		
Biome in a Bottle	**On-Level**	978-1-78916-027-7	**Below-Level**	978-1-78916-056-7
	Above-Level	978-1-78916-085-7	**English Language Learners**	978-1-78916-114-4
	Spanish	978-1-78916-606-4		
Greenhouse Effect in a Jar	**On-Level**	978-1-78916-028-4	**Below-Level**	978-1-78916-057-4
	Above-Level	978-1-78916-086-4	**English Language Learners**	978-1-78916-115-1
	Spanish	978-1-78916-607-1		



All leveled readers are available in multiple quantities in a variety of bundle options. Contact a Twig Science sales representative for more information.



imagine learning
empower potential™

imaginelearning.com/twig-science
877-725-4257 • solutions@imaginelearning.com

1302364431
MKT-IL-NAT-BROC-LRBR-0224