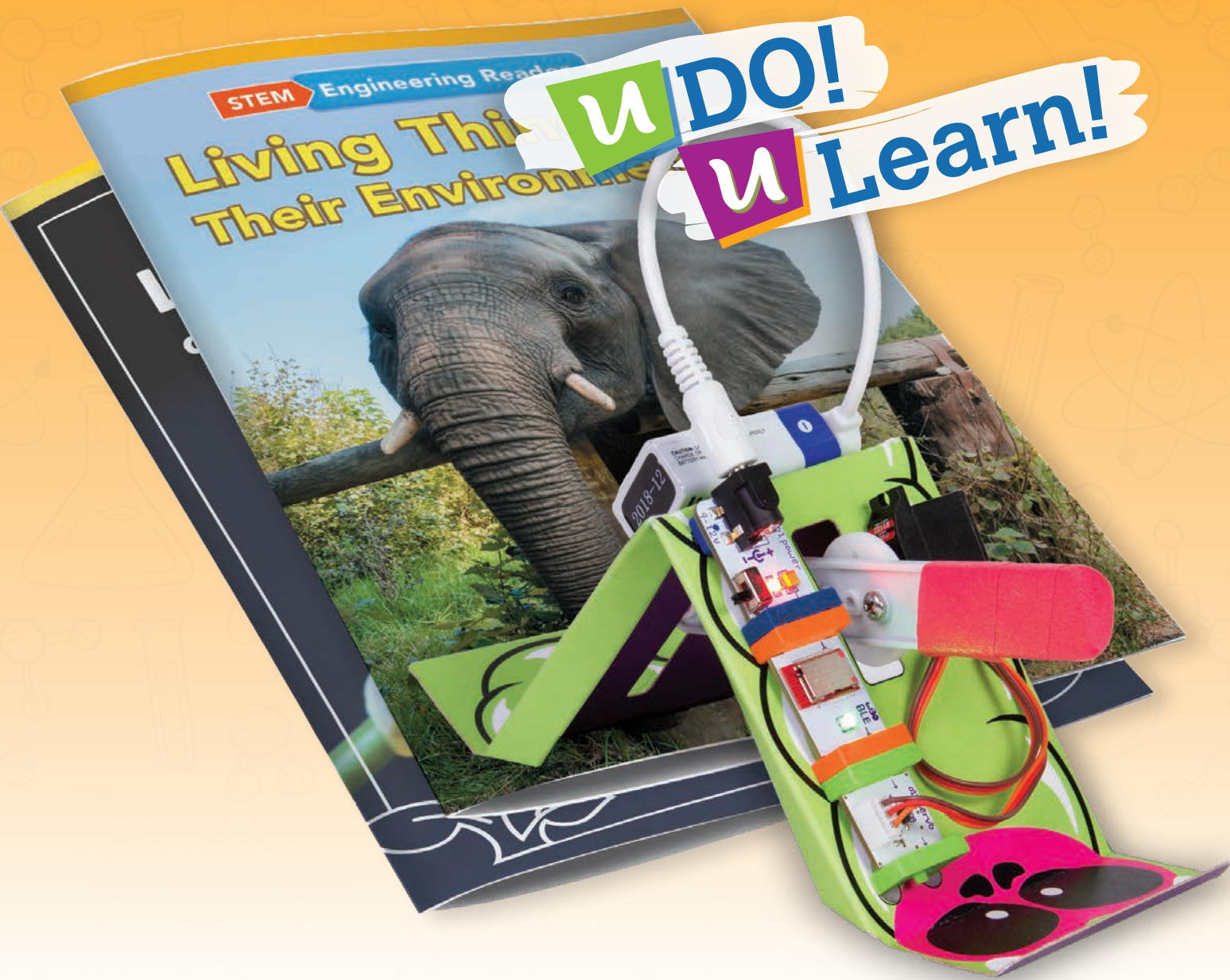


SAVVAS

K-5 LEVELED PHENOMENA AND
STEM ENGINEERING READER SERIES



elevate.science

Experience *IT!* through Reading

Literacy skills are critical to learning science content. Now you can add the **Leveled Phenomena Reader** Series to your **Elevate Science** curriculum, or to any core ELA or other science program, to enhance student learning. Savvas has partnered with Rubicon Publishing, an award-winning learning company, to support students of all reading levels to access critical science topics and concepts.

Below-Level



On-Level



Above-Level



TEACHER GUIDE

Easy-to-manage
Lesson Plans
Include EL Support
and Differentiated
Instruction.

Science

Phenomena & STEM/Engineering Reader Lesson Plans
Grades K-5

Meaningful Student Discourse

The text requires students to observe, analyze, and evaluate **phenomena** in the real world. The **Leveled Phenomena Readers Series** is designed with scaffolded text complexity to allow *all* students to share in meaningful conversations around the same science concepts.

Vocabulary taught in context

Seasons Change

The environments that plants and animals live in are called habitats. Habitats change with the seasons. Some habitats have hot and cold seasons. Others have wet and dry seasons. Some places even have a stormy season. When a habitat changes, the plants and animals living in it can be **affected**.

That's Amazing!

Monarch butterflies leave their habitats when the season changes. They can fly almost 5,000 kilometers to find warmer places in the fall!

Did You Know?

A group of butterflies is called a kaleidoscope or a swarm.

Living things are sometimes able to **adapt** to changes. This might mean that they eat different food. Or they may act differently or change their appearance. Adapting helps living things stay alive. But not all living things are able to adapt to the changes in their environment. If a living thing isn't able to adapt, it may not **survive**.

Think alouds contain key ideas

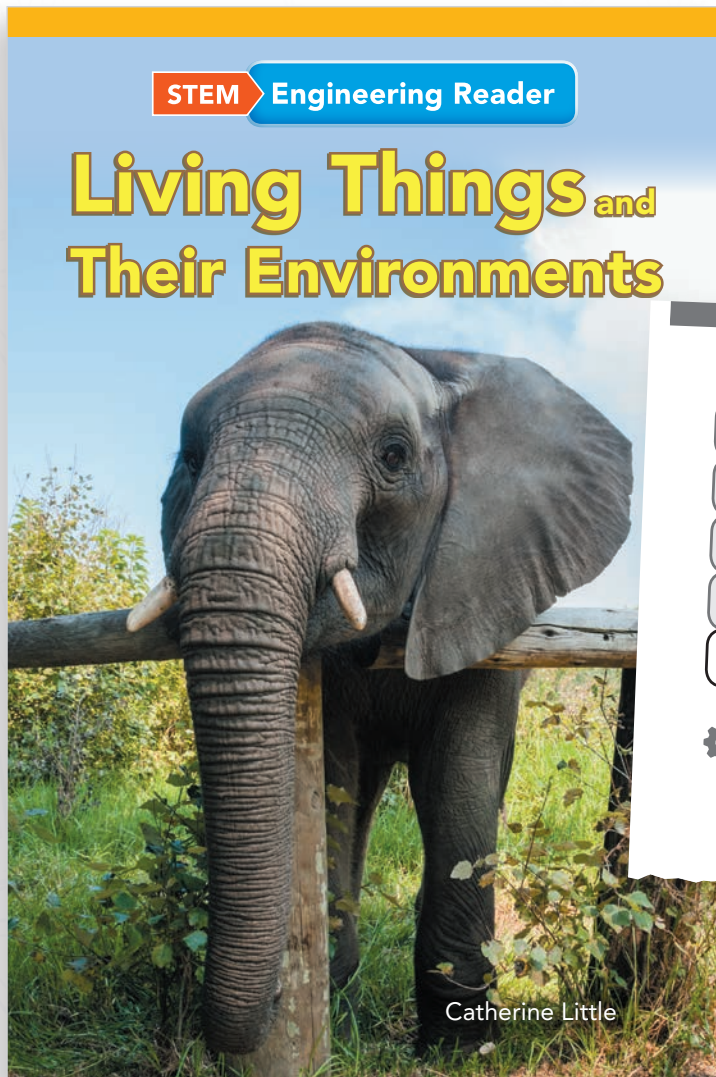
Did You Know? inspires wonder

Say hello to our STEM Engineering Readers

- Apply engineering practices to solve problems
- Engage students in real-world phenomena
- Include project-based learning experiences
- Support close reading of complex text
- Require students to compare and synthesize information


Elevate STEM and Improve Literacy

What does it take to build a video game or design the ultimate playground? **STEM Engineering Readers** are on-level texts for Grades K-5. Students learn how real scientists and engineers work to solve a problem and design a solution. They apply science and engineering practices, critical thinking, and literacy skills to investigate real-world phenomena.



STEM Engineering Reader

Define It	Engineers design things that work.
Model It	They also design ways for things to work better.
Build It	
Improve It	
Design It	

 Make a list of the fences you see every day. What do you think they are designed to do? Pick one fence you think could be designed to work better. What would you change about it?

- Introduces engineering models
- Tasks apply engineering practices
- Prompts focus reading

Lesson Plans

Leveled Phenomena and STEM Engineering Reader Lesson Plans are available for each topic. Each lesson plan provides a concept summary, differentiated support, literacy skill focus, collaborative conversations, and curriculum connection.

Living Things and Their Environments



Learn About Living Things and Their Environments
by Jolene Kamstra
BL Below Level
Lexile Measure 630L



Living Things and Their Environments
by Jolene Kamstra
OL On Level
Lexile Measure 730L



All About Living Things and Their Environments
by Jolene Kamstra
A Advanced
Lexile Measure 860L

Summary

Each book in this set of readers investigates how plants and animals adapt to their environments. The books present a range of ways in which living things respond to changes in temperature and precipitation as well as natural disasters, such as forest fires and floods. Examples of both familiar and unusual plants and animals help students see the diversity of responses available to various species.

BEFORE READING

Vocabulary

BL OL A adapt, affected, survive

Building Background

Discuss ways humans in which adapt to winter. Discuss what “adapt” means to change your appearance, your behavior, or your behavior to cope with changes. Encourage students to discuss ways humans in which adapt to all of these things.

Discuss how humans do to adapt to hot and dry environments, and how they cope with winter adaptations.

Discuss how animals and plants also adapt to changes. Ask students to describe animal or plant adaptations. Point out that some might be changes in appearance, while others might be changes in behavior. Match their examples with those two categories.

- Clarify that humans can make deliberate decisions about adaptations (e.g., buildings, clothing). Animals and plants, however, react to the environment; they do not make decisions to change.

Addressing Preconceptions

- Students may believe that the seasons cause the weather. They may not realize that seasons are human labels used to describe specific time periods. Show students how seasons change during the same time period during the weather.

Collaborative Conversation

During discussion, encourage students to ask one another questions when they need clarification or when they need to build on one another’s ideas. Provide these prompts to foster collaborative conversations among students.

Conversation Strategy	Prompt	Response
Challenge the Ideas of Others	Do you agree with _____?	I understand your point, but I would add _____.
Elaborate	Can you say more about _____?	I mean _____.

Curriculum Connections

Media Literacy

Tell students to pretend to be real estate agents for an animal discussed in the book. They are to think about the animal and then design a real estate ad to sell the perfect home for that animal. It must offer the animal all the features that would match its adaptations perfectly. For example, if they select monarch butterflies, the home must be on the most direct flight line to their migration goal. If they select a rhinoceros, the home must have a good source of mud. Give students an opportunity to research more about the animal before developing the ad.

GRADE 3

Go Online!

The *Leveled Phenomena Reader Series* and *STEM Engineering Readers* are available online on [SavvasRealize.com](https://www.savvasrealize.com).

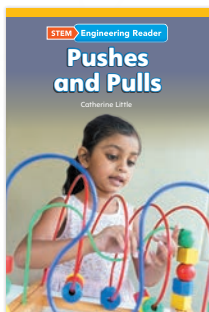
Project the readers for whole group instruction, utilize them in a technology learning center, or assign them for reading at home!

Use the audio feature as differentiated support or as a read-along for reluctant readers.



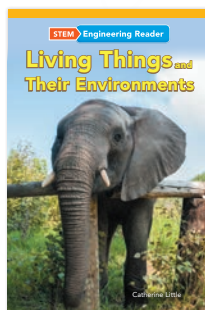
Highlight, create notes, and zoom in for the visually impaired.

Leveled Phenomena and STEM Engineering Reader Library by Topic



KINDERGARTEN

Pushes and Pulls
Sunlight
Earth's Weather
Needs of Living Things
Environments
Matter



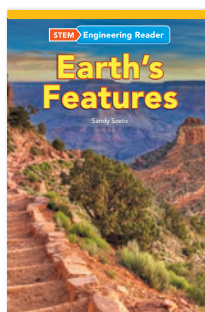
GRADE 3

Motion and Forces
Electricity and Magnetism
Weather
Climate
Life Cycle and Traits
Living Things and
Their Environments
Fossil Evidence



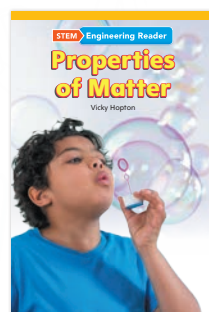
GRADE 1

Sound
Light
Sky and Earth
Living Things
Parents and Offspring



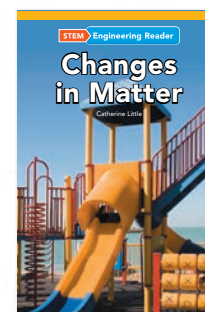
GRADE 4

Energy and Motion
Human Use of Energy
Waves and Information
Earth's Features
Earth's Natural Hazards
The History of Planet Earth
Structures and Functions
Human Body Systems



GRADE 2

Properties of Matter
Changing Matter
Earth's Water and Land
Earth's Processes
Plants and Animals
Habitats

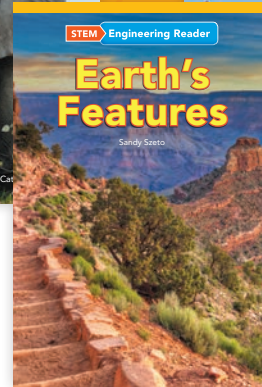
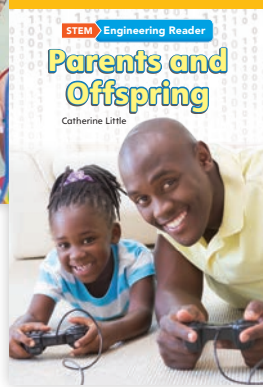
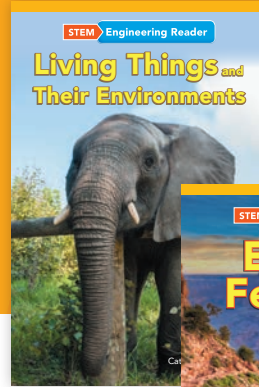
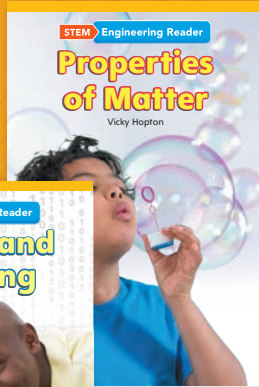
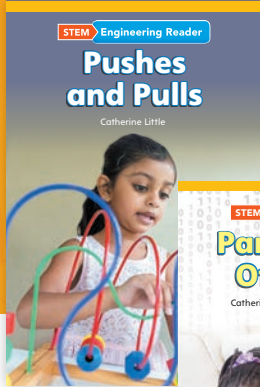


GRADE 5

Properties of Matter
Changes in Matter
Earth's Systems
Earth's Water
Human Impacts on
Earth's Systems
Solar System
Patterns in Space
Matter and Energy
in Ecosystems
Energy and Food

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