

Andrea Grubb Keith Eckert

# WHAT IS MYSTERY SCIENCE?



- Being "curious" is the framework
  - Prepares learners to think critically, which in turn prepares them for the unknown jobs that await them in the future.
- Each lesson starts with a question to spark learner's curiosity about science and ends with an inquiry based activity
- Answering learner questions forward rather than backward
  - Engagement by starting with how an answer was determined prior to telling the actual answer
  - Direct experience that leads to answer of the question at hand

# WHY MYSTERY SCIENCE

In addition to the reasons previously listed, teachers identified the need for a more engaging, complete science program to support our students. Through collaboration and research, staff members discovered that not only does Mystery Science positively impact our youngest learners, it enabled us to seamlessly prepare for the shift in the NYS Science Investigation for the 2023/2024 school year.

### **Activity Prep**

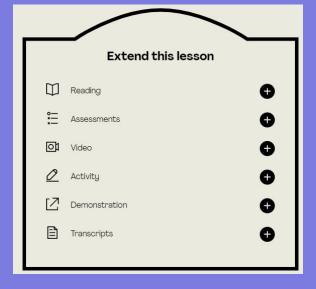


In this lesson, students will explore how solid rock breaks apart into smaller pieces through a process called weathering (including root-wedging and ice-wedging). In the activity, Sugar Shake, students use sugar cubes as a model for rocks. They perform an experiment with this model to understand the process of weathering and how this process explains why rocks at the tops of mountains are jagged, while those at the bottom are rounded.

Preview activity

- Inquiry based
- Collapses the curriculum
  - Next Gen Science standards K-5
  - Links to reading nonfiction passages
  - Writing
- Student centered
- Extensions and enrichment opportunities
- Parent communication feature
- Videos in Spanish





### Kindergarten

Animal Needs

Plant Needs

Severe Weather

Weather Patterns

Sunlight & Warmth

Pushes & Pulls



### 1st Grade

Animal Traits & Survival

Plant Traits & Survival

Day Patterns

Night Patterns

Light, Sound, & Communication



### Light, Communication, & Engineering

**1st** • How could you send a secret message to someone far away?

X Lesson + Activity Standards Aligned

### 2nd Grade

Animal Biodiversity

Plant Adaptations

Erosion & Earth's Surface

Material Properties



### Erosion, Earth's Surface, & Landforms

**2nd** • What's strong enough to make a canyon?

X Lesson + Activity ♥ Standards Aligned

### 3rd Grade

Fossils, Animal Survival, & Heredity

Life Cycles

Plant Life Cycle & Heredity

Weather & Climate

Forces, Motion, & Magnets

# Natural Hazards & Engineering 3rd • How can you keep a house from blowing away in a windstorm? \* Lesson + Activity Standards Aligned

### 4th Grade

Human Body, Vision, & The Brain

Earth's Features & Processes

Sound, Waves, & Communication

Energy, Energy Transfer, & Electrici...



### Collisions & Energy Transfer

**4th** • What makes roller coasters go so fast?

X Lesson + Activity Standards Aligned

### 5th Grade

Ecosystems & The Food Web

Water Cycle & Earth's Systems

Stars & The Solar System

Chemical Reactions & Properties O...



### Food Chains, Predators, Herbivores & Carnivores

**5th** • Why would a hawk move to New York City?



### Weathering & Erosion

4th · Will a mountain last forever?

- Birth of Rocks Unit
  - Earth's Features
  - Weathering & Erosion

Lesson Homepage

**Lesson Introduction** 

Student Activity

<u>Assessment</u>

### OUTCOMES FOR LEARNERS

- Experiential learning
- Collaboration
- Make sense of the world around them
- Engaging (FUN) hands-on experiences
- Connections to literacy
- Common experiences for all K-5 students across the district
- STAY CURIOUS

## STUDENT PHOTOS

## STUDENT ANECDOTAL