

**MYSTERY**  
science

# Mystery Science

*Open and go lessons  
that inspire kids  
to love science*

1. What is Mystery Science?
2. Why is it great?
3. How does it work?
4. How do I get started?

# One program, three resources to fit your teaching approach and time!

## MINI-LESSONS



Why do cats purr?

**10-20 min**

Morning meetings  
Getting into science

## FULL LESSONS

Human Machine > Mystery 1 Student link

### Why do your biceps bulge?

★★★★★ 4.8 (1,000 reviews)

- 🕒 Exploration (25 min)
- 🛠️ Activity: Robot Finger (30 min)
- 📄 Unit Connection (30 min)
- 🔧 Extras (3.5 hrs)

📦 View activity supplies

✉️ Email parents

▶ Start Mystery

Students discover the mechanism by which their muscles control their bones (i.e., how their bodies move). In the activity, students develop a robotic finger based on how their own fingers work.

**1 hour (+ more for extras)**

Core curriculum  
Teach key standards, with a virtual science co-teacher

## ANCHOR LAYER

Anchor Phenomenon: Sky Patterns & Modeling

✓ MARK TAUGHT

### Star Trails

- 📍 Anchoring Phenomenon (15 min)
- 🔍 Guided Student Inquiry (30 min)
- 🛠️ Activity: Star Trails Model (30 min)



**2+ hours/week**

Deeper exploration  
Adds anchor phenomena, anchor connections, and performance tasks  
*4th & 5th grades; 3rd being added in 2019/20*

LESSONS

MINI-LESSONS

Member of [Mystery Science School](#)

Search by topic

Seasonal Science

**Back to School**

Welcome Back to School Grades K-5

**Summer**

Soak Up the Sun Grades K-5

Kindergarten Units [Planning Guide & NGSS](#)

**Plant & Animal Secrets**

Plant & Animal Needs

**Weather Watching**

Weather & Seasons

**Force Olympics**

Forces, Machines, & Engineering

1st Grade Units [Planning Guide & NGSS](#)

**Plant & Animal Superpowers**

Plant & Animal Structures and Survival

**Spinning Sky**

Sun, Moon, & Stars

**Lights & Sounds**

Properties of Light & Sound

**Plant & Animal Secrets**



Plant & Animal Needs

This unit helps students develop the concept that animals and plants need things in order to survive, and their lives are all about meeting those needs... it's the secre... [More](#)

Lessons

Activity Prep

Assessments

**Mystery 1: Animal Needs: Food**

MARK TAUGHT

**Why do woodpeckers peck wood?**

🗨️ Exploration (20 min)

📖 Activity: Eat Like an Animal (20 min)

👤 Extras (4 hrs)



**Read-Along Mystery 2: Animal Homes**

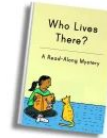
MARK TAUGHT

**Where do animals live?**

📖 Book: Who Lives There? (25 min)

📖 Recommended Activity: Nature Nuggets (20 min)

👤 Extras (30 min)



# Mystery Science is **easy!**

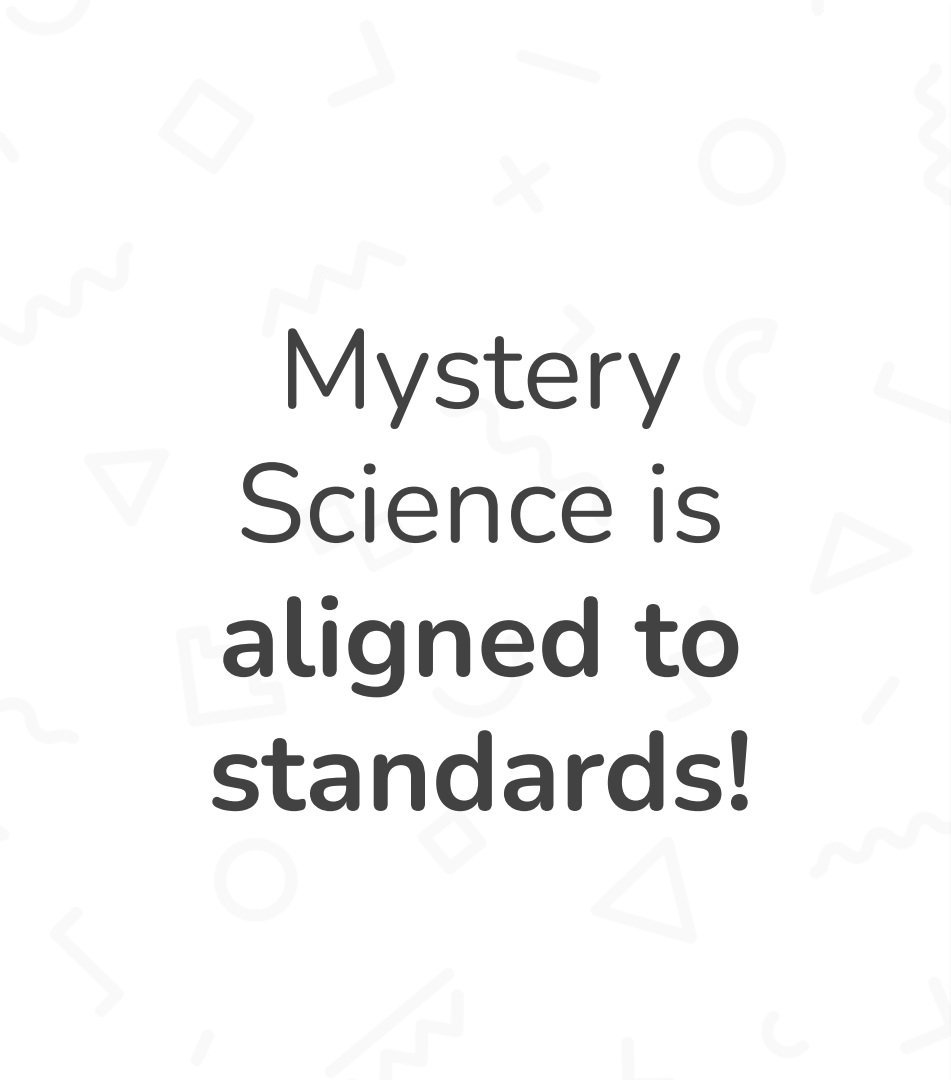
- A virtual science expert co-teacher by your side
- Pre-planned lessons, with cool visuals, “wows” are guaranteed :)
- Built-in guided discussions
- Minimal prep with easy-to-gather supplies
- Step-by-step directions for all hands-on activities
- No professional development required



# Mystery Science is **engaging!**

“I love these lessons! Everything is right there. The video clips and questions are great. My students get so involved and everyone participates. As I walk around the classroom, I hear great discussions between students.”

— Toni (3rd grade teacher, Grayling, MI)



# Mystery Science is **aligned to standards!**

- Designed for the Next Generation Science Standards (NGSS)
- Aligned to many state-specific standards
  - Arizona
  - Florida
  - Georgia
  - North Carolina
  - Ohio
  - Tennessee
  - Texas
  - More coming soon!



## Grade 4

Mystery Science recommends teaching the mysteries within each unit in the order they are presented. The units themselves can be taught in any order. The core Mystery (exploration & activity) are designed to take an hour per week, with 2 hours of Optional Extras per Mystery.

	Human Machine (4-8 weeks)	Birth of Rocks (4-8 weeks)	Waves of Sound (3-6 weeks)	Energizing Everything (8-16 weeks)
<b>Week 1</b>	Mystery 1: Why do your biceps bulge? (4-LS1-1)	Mystery 1: Could a volcano pop up where you live? (4-ESS1-1 and 4-ESS2-2)	Mystery 1: How far can a whisper travel? (4-PS4-1 and 4-PS4-3)	Mystery 1: How is your body similar to a car? (4-PS3-1 and 4-PS3-4) <i>*Revised April 2019</i>
<b>Week 2</b>	Mystery 2: What do people who are blind see? (4-LS1-1, 4-LS1-2 and 4-PS4-2)	Mystery 2: Why do some volcanoes explode? (4-ESS1-1)	Mystery 2: What would happen if you screamed in outer space? (4-PS4-1)	Mystery 2: What makes roller coasters go so fast? (4-PS3-1 and 4-PS3-3) <i>*Revised Summer 2019</i>
<b>Week 3</b>	Mystery 3: How can some animals see in the dark? (4-LS1-1, 4-LS1-2 and 4-PS4-2)	Mystery 3: Will a mountain last forever? (4-ESS1-1 and 4-ESS2-1)	Mystery 3: Why are some sounds high and some sounds low? (4-PS4-1)	Mystery 3: Why is the first hill of a roller coaster always the highest? (4-PS3-3) <i>*Revised Summer 2019</i>
<b>Week 4</b>	Mystery 4: How does your brain control your body? (4-LS1-1 and 4-LS1-2)	Mystery 4: How could you survive a landslide? (4-ESS2-1 and 4-ESS3-2)		Mystery 4: Could you knock down a building using only dominoes? (4-PS3-4 and 3-5-ETS1-1)
<b>Week 5</b>				Mystery 5: Can you build a chain reaction machine? (4-PS3-4, 3-5-ETS1-1, 3-5-ETS1-2 and 3-5-ETS1-3)
<b>Week 6</b>				Mystery 6: What if there were no electricity? (4-PS3-2 and 4-PS3-4)
<b>Week 7</b>				Mystery 7: How long did it take to travel across the country before cars and planes? (4-PS3-2 and 4-PS3-4)
<b>Week 8</b>				Mystery 8: Where does energy come from? (4-ESS3-1)

**Have extra time?** "Optional Extras" are extensions to each Mystery. We recommend you use them during your unit or to extend the length of each unit. They include an informational text reading that builds on the Mystery's topic, assessments, and suggestions for supplemental activities.

More Science each week	Longer Science units	Cross Curricular Integration
Use items from the Optional Extras to extend each Mystery if you have more time.	Add a week after each Mystery to teach items from the Optional Extras.	If you want to extend the Mystery but don't have extra time, use Optional Extras during literacy time.

<https://mysteryscience.com/docs/ngss>

**MYSTERY**  
SCIENCE



Let's take  
a look at  
how a  
Mystery  
unfolds

**MYSTERY** science 🔍 Ask Anything 👤 Teacher ▾

[Work of Water](#) > Mystery 1 Student link 🔗

## If you floated down a river, where would you end up?

★★★★★ 4.8 (1,3464 reviews)

- 🗨 Exploration (20 min)
- 📄 Activity: Paper Mountains (30 min)
- 🕒 Extras (5.3 hrs)



In this Mystery, students develop a model of the earth's surface and use it to discover an important principle about how rivers work.

[🔗 View activity supplies](#)

[✉ Email parents](#)

[▶ Start Mystery](#)

Slow Internet or video playback problems? [Download Mystery](#).

# Easy prep

*Collect some simple materials you have on hand or can get easily and print a few pre-made worksheets.*

## Paper Mountains



In this activity, students make mountain models out of paper. Then students take turns using a spray bottle to make rain fall on their models to observe patterns of how water and rivers flow.

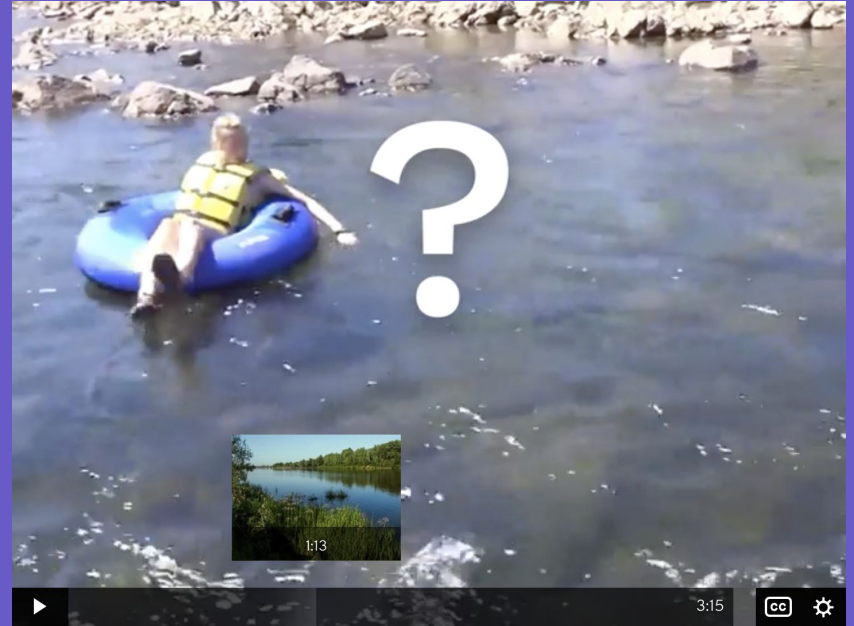
→ [Preview activity](#)

Number of students:

Blank Paper (8.5 x 11")	Details ▾
Markers	Details ▾
Dot Stickers	Details ▾
Spray Bottles	8 bottles
Table Covering (Trash Bag)	Details ▾
<a href="#">"This is _____'s land"</a> printout	Print 15 copies

# Video introduction:

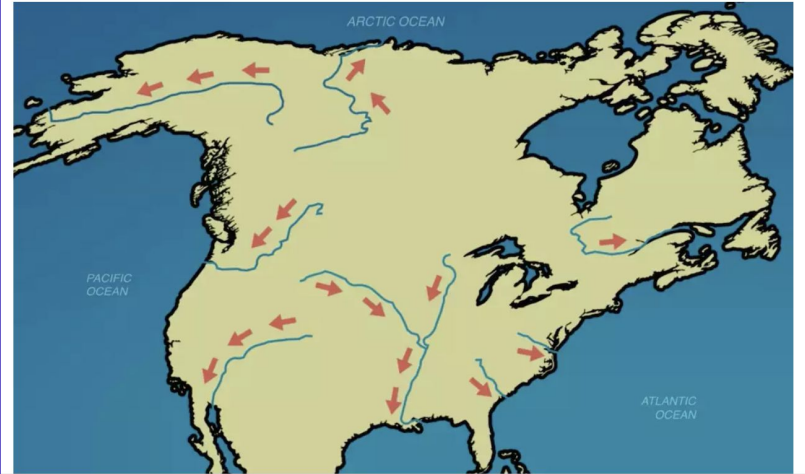
*A short video sets up the Mystery—the question that guides the exploration—and offers clues to help students solve it.*



# Discussion prompts:

*The video pauses after each clue with a question for your class to discuss.*

**DISCUSS:** Here's a map showing real rivers in North America. Do the starting points of the rivers have anything in common? What about where they end?



# Step-by-step activity:

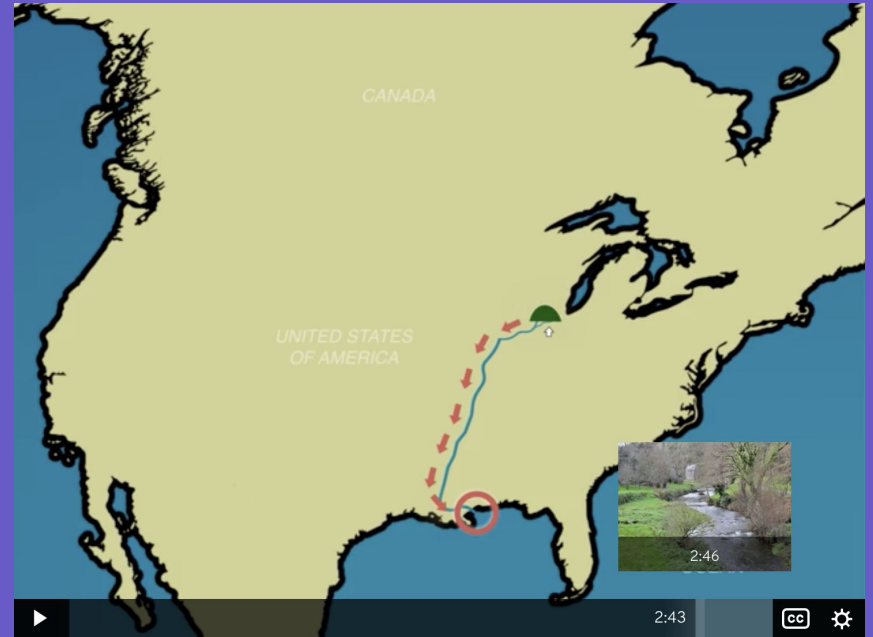
*Step-by-step instructions guide students through a hands-on activity that helps them discover the answer to the Mystery.*

Step 12 of 16 **Crumpler:** Use the marker to trace over each line & make it darker. Use a lot of ink!



# Video summary:

*A short video ends the lesson, helping students integrate their insights and retain what they learned.*



# Editable assessments:

*Lesson and  
end-of-unit  
assessments are easy  
to edit to your needs  
and print out.*

## Work of Water



### Erosion & Earth's Surface

This unit helps students develop the idea that water is a powerful force that reshapes the earth's surface. Students see that water isn't just something we drink. It c... [More](#)

Lessons

Activity Prep

Assessments

This **summative assessment** is a combination of short response and fill-in-the-blank questions intended to be administered at the end of this unit. It should take about 25 minutes for a student to complete.

[View unit assessment](#)

[View unit answer key](#)

For your reference, these are all the assessments included at the end of each Mystery from this unit:

Mystery 1: Mapping, Earth's Surface, & Landforms

[View Mystery 1 assessment](#)

[View answer key](#)

# Choose a Mystery and get started today!

*Pick any unit in your grade. We recommend starting with the first Mystery—but you can also search by topic :)*

*Questions? Contact [support@mysteryscience.com](mailto:support@mysteryscience.com), or call 650-550-0670, and a real person will answer!*