Use this 20 min presentation to introduce your peers to fun, profound science! Tip: use the slides as a structure--and talk about why you love Mystery Science. Here are two draft emails you can send to colleagues, before and after the talk, to make sure they can access your school's Mystery Science account.

How to find your school's unique link Send before the staff meeting Send after the staff meeting Select School Usage in your account Hi fellow teachers. Hi there: 1. I'll be sharing why I use Mystery Science Thanks for letting me share my Ask Anything Iteacher • at our upcoming staff meeting [insert excitement about Mystery Science! lest Teacher test teacher@mvstervscience.com date, time, location]. Mystery Science School 14 pe Now that you know what it's all about, Account Settings I'd love to help you get started with this make sure you activate your account; View School Usage easy, engaging resource! You can join here's our school's link again: our school's Mystery Science account by 2. Click on Invite Others on that screen [insert your school's link—see clicking on this link: instructions on the right] Ø Ask Anything Teacher [insert your school's link—see Pick a Mystery to teach--and let me instructions on the right] Invite more 14 people signed up know if you have any questions, or just

Bring your laptop with you to the meeting: that way, I can help you get set up and be ready to go :)

Best,

share how it went when you teach!

Best.

3. Copy the link with your school ID from the pop-up



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

#### Why do your biceps bulge?

\*\*\*\*\* **4.8** (<u>15266 reviews</u>)

⇔ 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 movel). 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

#### Student link %

Anchor Phenomenon: Sky Patterns & Modeling

#### **Star Trails**

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

#### ✓ MARK TAUGHT



#### 2+ hours/week

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

ANCHOR LAYER

MYSTERYscience		Ø Ask	Anything	Teacher •
	LESSONS	MINI-LESSONS		
Member of Mystery Science School	Plant	& Animal Secre	to	
Search by topic		nimal Needs	15	f
easonal Science				
Welcome Back to School Grades K-5		s students develop the concept th r to survive, and their lives are all a More ⊘		
Soak Up the Sun Grades K-5	Lessons	Activity Prep Assessme	nts	
Plant & Animal Secrets       >         Plant & Animal Needs       >         Weather Watching       >         Weather & Seasons       >         Force Olympics       >	Why do	at Like an Animal (20 min)	od?	✓ MARK TAUGHT
Forces, Machines, & Engineering	Road Alana	Mustani (): Animal Hamaa		
st Grade Units Planning Guide & NGS Plant & Animal Superpowers Plant & Animal Structures and Survival	Where de	Read-Along Mystery 2: Animal Homes Where do animals live? Book: Who Lives There? (25 min)		✓ MARK TAUGHT
Spinning Sky Sun, Moon, & Stars	A Recomme	ended Activity: Nature Nuggets (20 i min)	min)	A Anash Along Mynawy
Lights & Sounds Properties of Light & Sound				

#### FULL LENGTH, STANDARDS-ALIGNED LESSONS FOR K-5

## 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
  - o 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)
Week 1	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) "Revised April 2019
Week 2	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) "Revised Summer 2019
Week 3	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) "Revised Summer 2019
Week 4	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)
Week 5				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)
Week 6				Mystery 6: What if there were no electricity? (4-PS3-2 and 4-PS3-4)
Week 7				Mystery 7: How long did it take to travel across the country before cars and planes? (4-PS3-2 and 4-PS3-4)
Week 8				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.

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

https://mysteryscience.com/docs/ngss

MYSTERY science

Let's take a look at how a Mystery unfolds

#### **MYSTERY** science

#### Work of Water > Mystery 1

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

\*\*\*\*\* 4.8 (13464 reviews )

- Q 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

Student link %

Ask Anything Teacher •



### 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:	30
Blank Paper (8.5 x 11")	Details 👻	
Markers	Details 🔻	
Dot Stickers	Details 🔻	
Spray Bottles	8 bottles	
Table Covering (Trash Bag)	Details 🔻	
"This is's land" 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:

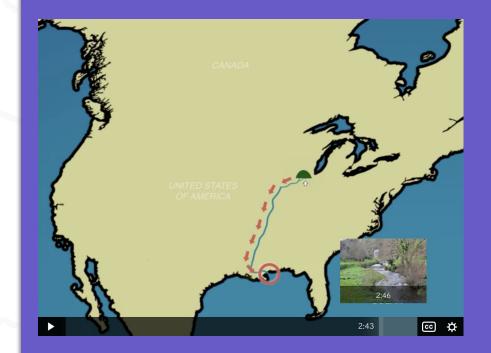
Step-by-step instructions guide students through a hands-on activity that helps them discover the answer to the Mystery.

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

🔊 🎽 f

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**  $\lhd$ 

Lessons Activity Prep

Assessments

This **summative assessment** is a combination of short response and fillin-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 <u>support@mysteryscience.com</u>, or call 650-550-0670, and a real person will answer!