HMH Highlights

The things you will LOVE

DEMO INFO

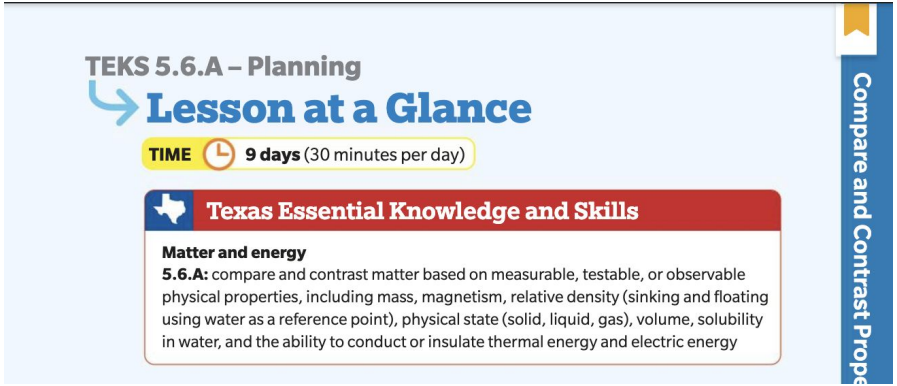
Logging into Your Preview Account

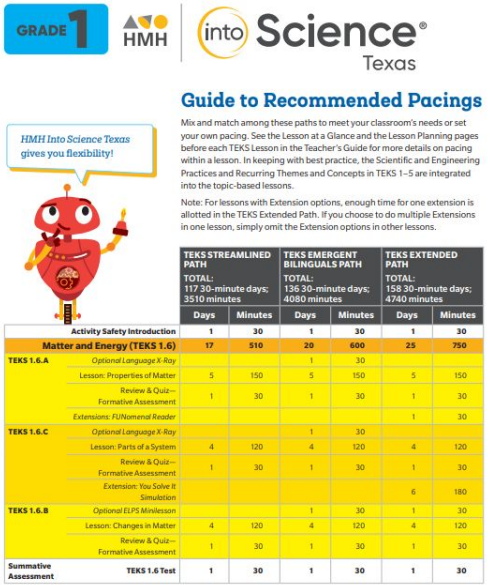
We're excited to help you get started by logging into *Ed*®, the HMH® learning platform. For easy access, please copy and paste the URL and login credentials below.

1. Go to **www.hmhco.com/reviewtxsciencek8**
2. For State: Type EVALUATOR
3. For District: Type **Texas Into Science K-8c-91010600**
4. Enter USERNAME and PASSWORD*

User View	Username	Password
Teacher View	**TX_Teacher1**	**Easy123!**
Student View	**TX_Student40**	**Easy123!**

Lessons can be taught in 30 minutes. For upper grades, these lessons can be extended with writing, challenge activities and discussion.



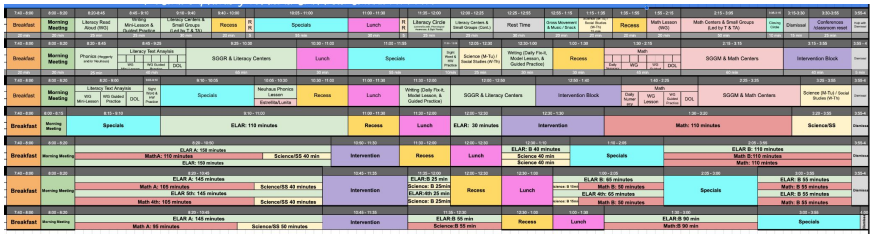


		TEKS STREAMLINED PATH TOTAL: 17 30-minute days; 3510 minutes		TEKS EMERGENT BILINGUALS PATH TOTAL: 136 30-minute days; 4080 minutes		TEKS EXTENDED PATH TOTAL: 158 30-minute days; 4740 minutes	
		Days	Minutes	Days	Minutes	Days	Minutes
Activity Safety Introduction		1	30	1	30	1	30
Matter and Energy (TEKS 1.6)		17	510	20	600	25	750
TEKS 1.6.A	*Optional Language X-Ray*			1	30		
	Lesson: Properties of Matter	5	150	5	150	5	150
	Review & Quiz—Formative Assessment	1	30	1	30	1	30
	Extensions: FUNomenal Reader					1	30
TEKS 1.6.C	*Optional Language X-Ray*			1	30		
	Lesson: Parts of a System	4	120	4	120	4	120
	Review & Quiz—Formative Assessment	1	30	1	30	1	30
	Extension: You Solve It Simulation					6	180
TEKS 1.6.B	*Optional ELPS Minilesson*			1	30	1	30
	Lesson: Changes in Matter	4	120	4	120	4	120
	Review & Quiz—Formative Assessment	1	30	1	30	1	30
Summative Assessment	TEKS 1.6 Test	1	30	1	30	1	30

SCHEDULING

We are recommending Science instruction should take place daily (M-Th) k-5 for at least 25-30 minutes

Social Studies can be incorporated into morning lessons, self-paced as a center through Nearpod, Progress Learning, or incorporated to Friday instruction - or other!



Editable Lesson Plan for each unit

Editable Lesson Summary Plan: Grade 5 TEKS 5.6.A

Lesson Standards			
Lesson Objective, TEKS 5.6.A: compare and contrast matter based on measurable, testable, or observable physical properties, including mass, magnetism, relative density (sinking and floating using water as a reference point), physical state (solid, liquid, gas), volume, solubility in water, and the ability to conduct or insulate thermal energy and electric energy			
Scientific and Engineering Practices	Use Scientific Tools (5.1.D)	Use Mathematics (5.2.C)	**Recurring Themes and Concepts**
Ask Questions (5.1.A)	Collect Evidence (5.1.E)	Develop Explanations (5.3.A)	Patterns (5.5.A)
Plan and Conduct Investigations (5.1.B)	Construct Organizers (5.1.F)	Communicate Information (5.3.B)	Stability and Change (5.5.G)
Demonstrate Safety (5.1.C)	Analyze Data (5.2.B)	Engage in Scientific Discussion (5.3.C)	

Language Support	
Lesson Vocabulary: electrical energy, conductor, density, Insulator, solubility, volume	**Language Objective:** Use superlative and comparative adjectives, connector, and when/then orally and in writing to compare properties of matter and identify patterns. **ELPS: 3H, 5B**
Into Reading Connection	**Language Resources**
If you use both *Into Reading* and *Into Science*, this lesson may be used with Module 1 Week 1, *Inventors at Work*. Additional resource connections and more details can be found in the Reading Connections Lesson Maps.	Science: Linguistic Transfer Guide/Ciencias: Guía de transferencia lingüística ELPS Minilesson to go with TEKS 5.6.A Language X-Ray to go with TEKS 5.6.A Language Development Worksheet Vocabulary Anchor Chart Writing Graphic Organizer

Differentiate Instruction Options		
ntiation s Guide	**Reteaching Support** ScienceSaurus Physical Science: *Matter* Supplemental Lesson *What Are Observable Physical Properties of Matter?*	**Extensions** ELPS Minilesson to go with TEKS 5.6.A You Solve It: *Maze Matters*

Lesson Hands-On Lab Materials				
• 4 beakers* • Celsius thermometer* • electrical tape* • foam cup*	• goggles* • graduated cylinders, 50 mL or 100 mL* • granulated sugar* • heat-resistant gloves* • hot plate* • large bowl, heat-resistant* • large plastic container*	• light bulb* • light bulb holder* • magnet* • materials to test (nail, bolt, coin, paper clip, metal utensil, plastic utensil, pencil, aluminum foil)* • measuring spoon* • metal can, empty*	• metric ruler • notebook • oil (vegetable, cooking)* • pan balance and masses* • plastic cups* • sand • scissors • solid box-shaped objects	• stir spoons* • timing device* • vinegar* • water • waterproof clay* • wires* ***kit provided**

Grade 5 TEKS 5.6.A, Compare and Contrast Properties of Matter		
DATE:	**DATE:**	**DATE:**
Day 1: Engage– TG pp. 6–7	**Day 2: Explore/Explain 1– TG pp. 8–11**	**Day 3: Explore/Explain 2– TG pp. 12–15**
Interactive/Print Student Lesson pp. 1–5	**Interactive/Print Student Lesson pp. 6–12**	**Interactive/Print Student Lesson pp. 13–17**
What Do You Already Know?/ Vocabulary Activate Prior Knowledge **Phenomenon: Can You Explain It?** Introduce the phenomenon that bean bag chairs and typical classroom chairs are made up of materials that may have different properties. The	**Hands-On Activity: Measuring Volume** **Learning Objective:** Students will be able to measure and calculate the volume of solids and liquids. **Do the Math**	**Hands-On Activity: Exploring Mass and Relative Density** **Learning Objective:** Students will be able to measure masses and test relative densities of objects. **Differentiation:**

Explicit Teacher Guide by day

Forces and Patterns of Motion (TEKS 5.7.A): Planning

DAY 2 • EXPLORE/EXPLAIN

Interactive/Print Student Lessons pp. 121–126

Ed Online

PocketLab for enhanced collaboration

- Hands-On Activity in PocketLab Notebook
- Interactive Student Lesson, Day 2
- Print Student Edition, Day 2
- Hands-On Activity, Downloadable Worksheet
- G5 Science Themes Organizer: Cause and Effect

Hands-On Activity

Forces on an Object, Part 1

TIME 25 minutes

TEKS 5.7.A

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Scientific and Engineering Practices

5.3.B communicate explanations ... individually ... in a variety of settings and formats

Recurring Themes and Concepts

5.5.B identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems

Key Learning Activity

Learning Objective

Students will be able to investigate and explain how equal and unequal forces on objects cause

Sense-Making

Students will understand that forces on an object can be balanced or unbalanced and that balanced and unbalanced forces affect motion differently. They will use this information to analyze the forces and patterns of motion of the table tennis ball.

Elicit Student Thinking Ask questions and prompt students to think about the forces on the table tennis ball. In this activity, students apply forces to the ball with their fingers. When students observe the ball falling, ask them what they already know about why objects fall. Remind students that the force of gravity pulls on objects near Earth's surface.

Materials

- table tennis ball
- safety goggles

Preparation Tips

Provide adequate space for students to conduct their investigations. Consider providing containers to hold the table tennis balls when not in use.

Safety

Interactive/Print Student Lessons pp. 121–126

DAY 2 • EXPLORE/EXPLAIN

PAGE 122

Steps 1–3

If students are unsure how to hold the table tennis ball using equal pressure or force, model the process and have them view the photograph in Step 5.

Steps 3–5

If students are unsure of headings to use on their T-chart, have them review words from the instructional steps, such as "without any movement" and "removing fingers from one side of the ball" or something similar.

Support for Student Answers

Analyze Data: In Step 2, when you and gravity are applying equal forces to the ball, what happens? Sample answer: The forces on the ball are balanced, so the ball does not move.

In Step 4, when you remove your fingers' forces from the ball, what happens? Sample answer: The forces on the ball are unbalanced, and the ball falls to the ground.

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Support for Student Answers

Collect Observations: Draw your observations. Use arrows to represent the forces moving between your hand and the ball. Sample answer: The first drawing should show the ball with an arrow pointing on it in the direction of the push from Step 2. The second drawing should show the ball between two equally sized arrows, one pointing to the right and one to the left.

For review and reinforcement, have students complete the G5 Science Themes Organizer: Cause and Effect to describe the relationships and patterns of motion.

Support for Student Answers

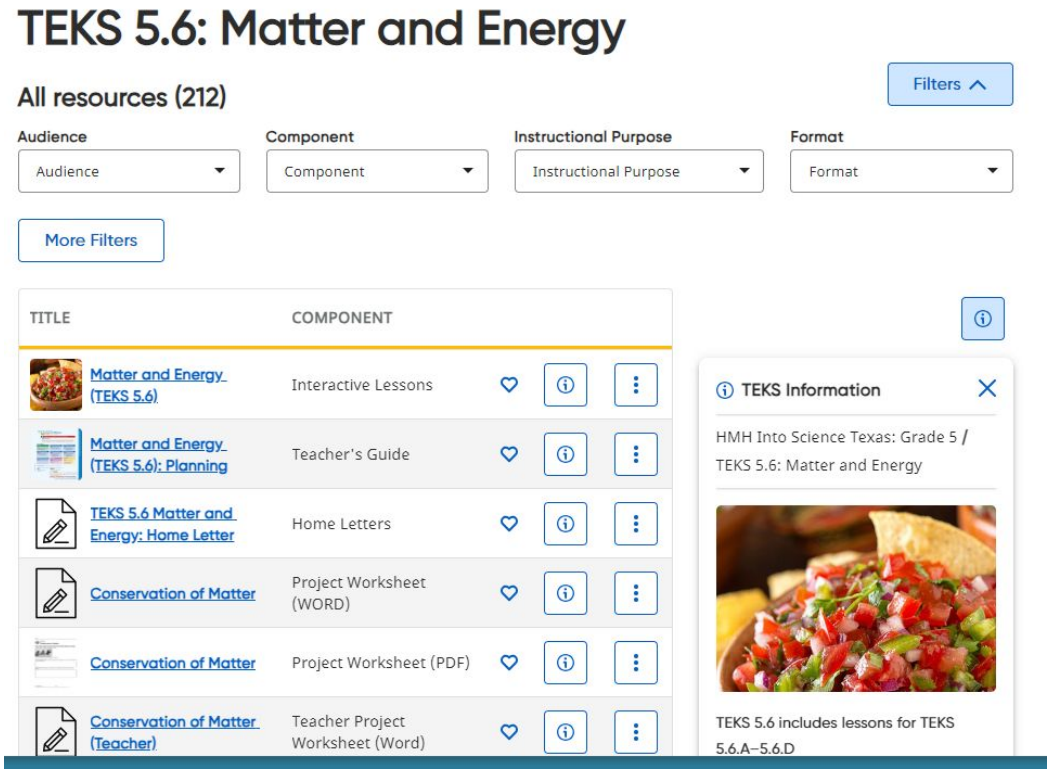
Cause and Effect: Explain how balanced forces acting on an object cause patterns of motion. Sample answer: Balanced forces keep the ball from moving. Not moving is a pattern of motion.

Students as Scientists

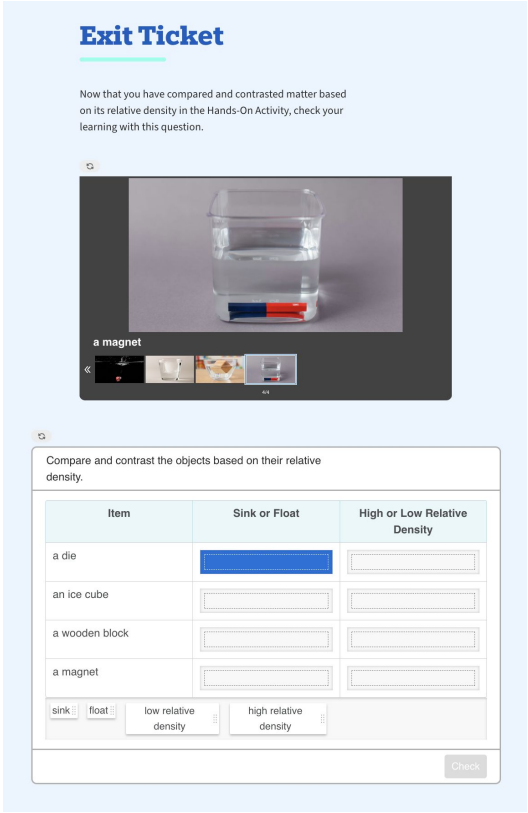
Student scientists explore and observe the use of forces regularly in their everyday lives. For instance, students may have observed adults moving a piece of furniture by combining multiple push forces or one push force and one pull force. Ask students to turn to a partner and share a recent experience where they observed balanced or unbalanced forces. Encourage students to use their scientific vocabulary in telling their stories to reinforce their identity as scientists.

Everything is at your fingertips…

- Links
- TEKS info
- Worksheets



Daily Exit Tickets (DOL)



Scaffolding Ideas

Scaffolding

BEGINNING

Allow students to handle objects or observe them. Guide their understanding by providing color words and words to describe texture. Have them repeat simple phrases. Say: *The color is (red and black). The texture is (bumpy and rough).*

INTERMEDIATE

As the group works together, make sure that all students participate. Monitor their work and offer language support. Say: *What is another word you can use? smooth/shiny/flat/even*

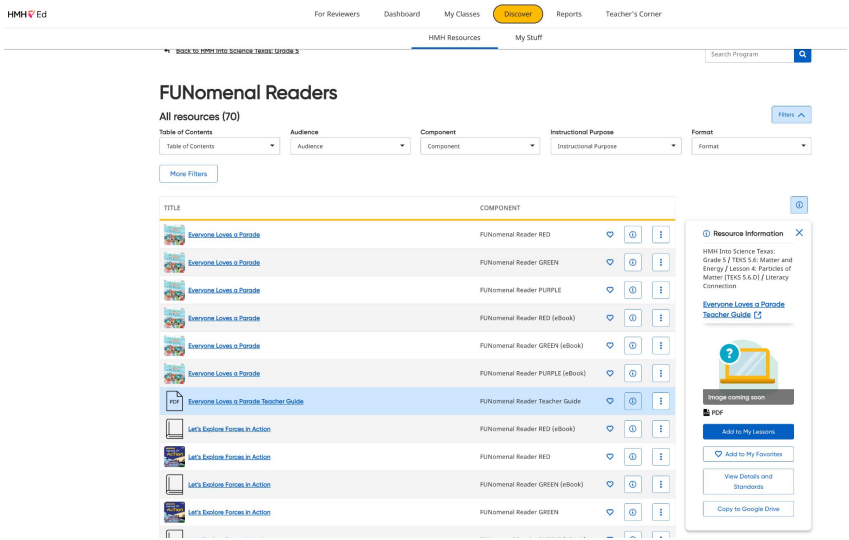
ADVANCED

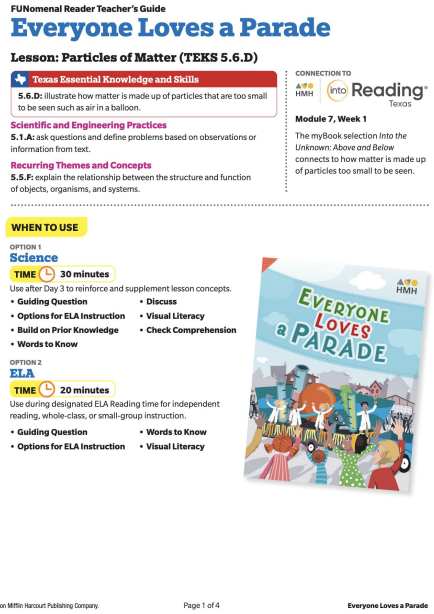
Ask students to elaborate on their ideas. For example, ask: *Why do you think the texture of sandpaper is rough? It has little pieces of sand on it.*

ADVANCED HIGH

Invite students to compare two or more objects using comparative words such as *smoother, rougher, lighter, heavier, has more mass.*

Leveled Readers w/literacy connection




FUNomenal Reader Teacher's Guide

Everyone Loves a Parade

Lesson: Particles of Matter (TEKS 5.6.D)

Texas Essential Knowledge and Skills

5.6.D: illustrate how matter is made up of particles that are too small to be seen such as air in a balloon.

Scientific and Engineering Practices

5.1.A: ask questions and define problems based on observations or information from text.

Recurring Themes and Concepts

5.5.F: explain the relationship between the structure and function of objects, organisms, and systems.

CONNECTION TO HMH into Reading Texas

Module 7, Week 1

The myBook selection *Into the Unknown: Above and Below* connects to how matter is made up of particles too small to be seen.

WHEN TO USE

OPTION 1

Science

TIME 30 minutes

Use after Day 3 to reinforce and supplement lesson concepts.

- **Guiding Question**
- **Options for ELA Instruction**
- **Build on Prior Knowledge**
- **Words to Know**
- **Discuss**
- **Visual Literacy**
- **Check Comprehension**

OPTION 2

ELA

TIME 20 minutes

Use during designated ELA Reading time for independent reading, whole-class, or small-group instruction.

- **Guiding Question**
- **Options for ELA Instruction**
- **Words to Know**
- **Visual Literacy**

PLAN

GUIDING QUESTION

The Guiding Question that begins the student lesson is, *Why are the bubbles different sizes?* Have students discuss the question and how it connects to the Reader, which tells about each class in a school designing and building a float for a parade. Guide students to understand that this **informational fiction** Reader connects to how matter is made up of particles that are too small to be seen.

GENRE

Discuss with students that the genre of the Reader is **informational fiction.** It uses a fictional, or made-up, plot or other elements, but the science facts presented are true. Have students name other **informational fiction** books they know.

OPTIONS FOR ELA INSTRUCTION

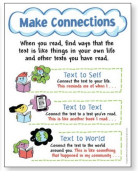
Anchor Charts

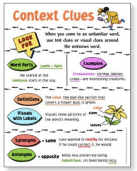
Choose one of the following anchor chart options, and project it or print copies. Then display and introduce the chart before reading the text. Revisit the chart after reading. Encourage students to discuss how the skill connects to the text.

Literary Elements: Refer to the *Literary Elements Anchor Chart,* and guide students to identify the characters, setting, plot, and events in the story. What problem do the main characters face, and how do they resolve it?

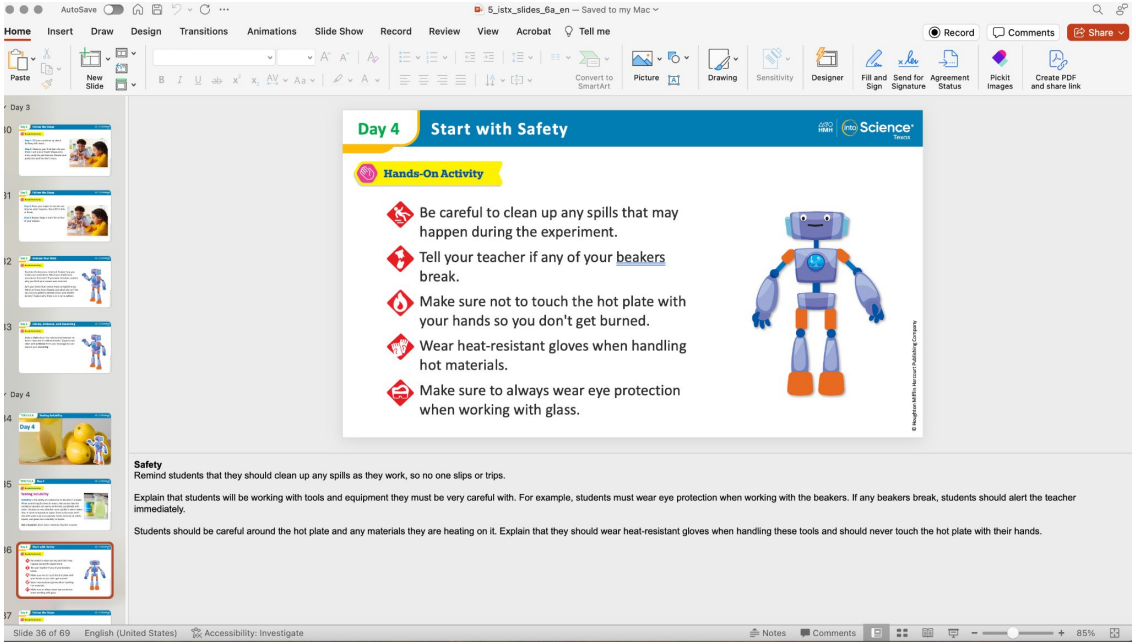
Make Connections: Display the *Make Connections Anchor Chart* to help students make connections. Give them sentence starters: *This reminds me of when I . . ., This is like another story I read . . ., This is like something in my community . . .*

Context Clues: Use the *Context Clues Anchor Chart* if students need support to understand the meanings of story words. For example, the word *particles* on p. 6 has a clue to its meaning when Taylor says they are too small to be seen.





Lesson Slides w/teacher notes



English/Spanish Vocabulary Cards

electrical energy
energía eléctrica

electrical energy
Energy caused by the movement of electric charges.

energía eléctrica
Energía causada por el movimiento de cargas eléctricas.

TEKS 5.6.A

cut

conductor
conductor

conductor
A material that transfers energy easily.

conductor
Un material que facilita la transferencia de energía.

TEKS 5.6.A

TEKS Quiz

Name: _____ Date: _____

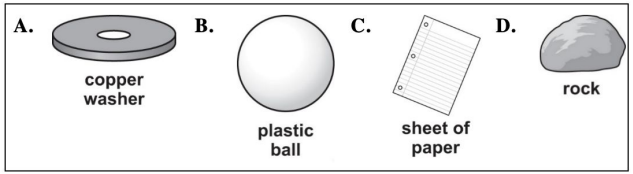
TEKS 5.6.A
Quiz A

6. Josh wants to compare four different objects based on physical properties. He tests each object by placing it in a beaker of water to see if it will float. He also tests the objects to see if they insulate heat and if they conduct electricity.

Material	Physical Properties		
	Insulate thermal energy?	Float in water?	Conduct electrical energy?
1	yes	no	no
2	no	no	no
3	yes	yes	no
4	no	no	yes

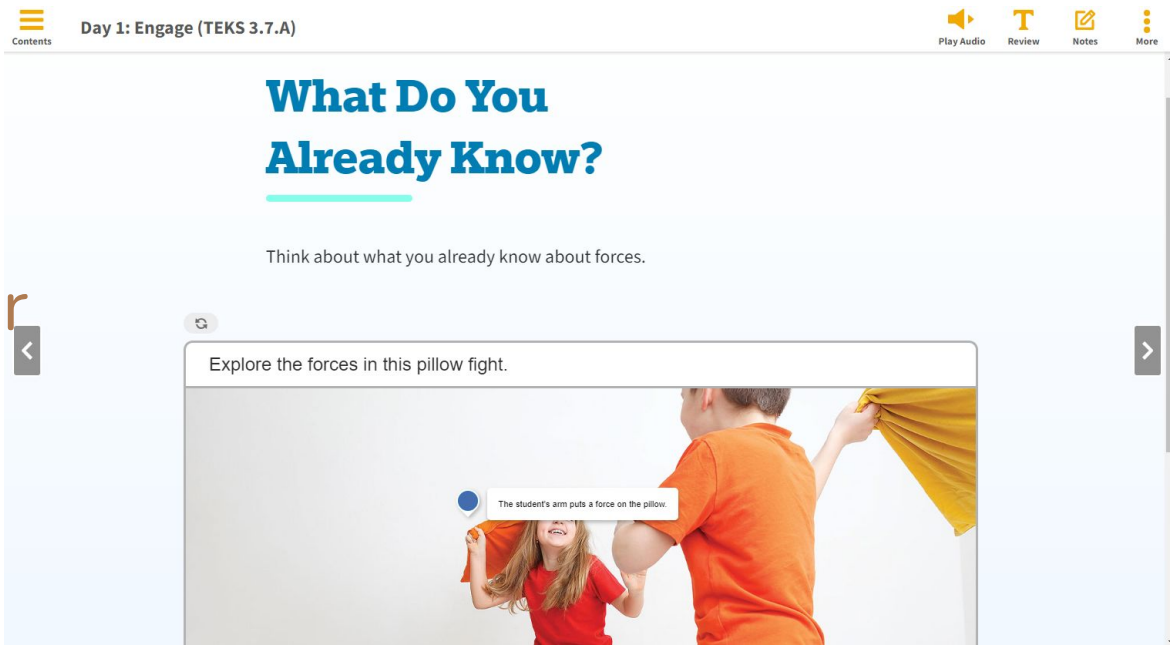
Based on the properties in the table, which object **BEST** matches each material? Write the letter of **ONE** correct answer in each box.

Material 1	
Material 2	
Material 3	
Material 4	



Interactive SLIDES!!!!!!

You can present from the slides or assign to the students



You will receive...

Each year you will receive:

- Teacher Edition
- Student Edition (English K-5; Spanish 2-5; Spanish SE available online)
- Refills of your consumable materials.

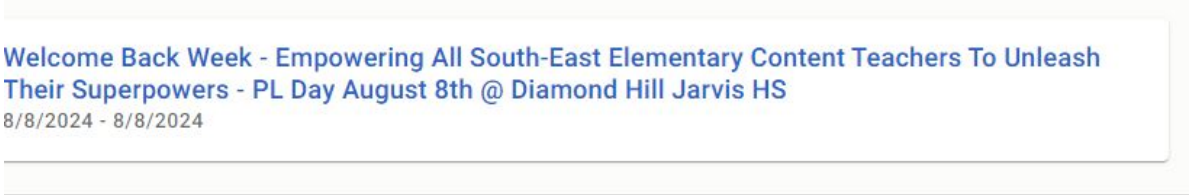
This year only, you will receive NON-CONSUMABLE EQUIPMENT.

***Materials/Equipment comes in their own bins with materials labeled by TEKS and Activity.

WHAT'S INSIDE

So, so much more....
Be sure to enroll in the HMH training at
Diamond Hill-Jarvis next Thursday, August 8th

Enroll in Eduphoria: (Go to Conferences in Strive)
“Register” for:



“Enroll”: PLD: Be a Science Superhero (choose any of the sessions AM or PM)