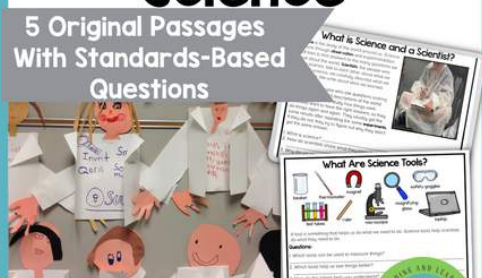


All 2nd Grade Reading Comprehension Standards And 9 Science Topics

The Practice of Science

5 Original Passages With Standards-Based Questions




Bonus Experiment
PRINT & DIGITAL

What is Science and a Scientist?
What Are Science Tools?

Engineering

4 Original Passages With Standards-Based Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

Engineering Safety?
What Are Engineering Tools?

Habitats

4 Original Passages With Standards-Based Questions

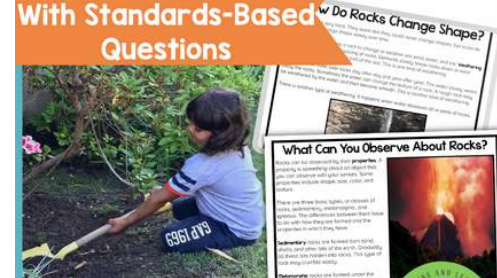


Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

Plants and Animals Live
What Are Different Types of Habitats?

Rocks and Soil

4 Original Passages With Standards-Based Questions




Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

Do Rocks Change Shape?
What Can You Observe About Rocks?

Forms of Energy

5 Original Passages With Standards-Based Questions

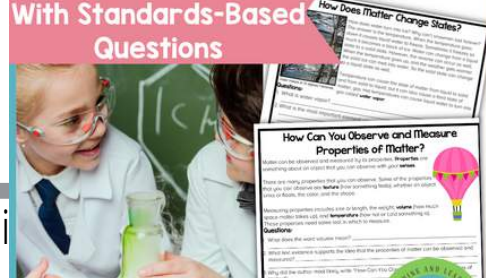


Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

What is Energy?
What is Electricity?

States of Matter

5 Original Passages With Standards-Based Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

How Does Matter Change States?
How Can You Observe and Measure Properties of Matter?

Life Cycles

4 Original Passages With Standards-Based Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

What Are Magnets?

Weather

7 Original Passages With Standards-Based Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

What is Weather?
What Are The Four Seasons?

Force & Motion

4 Original Passages With Standards-Based Questions

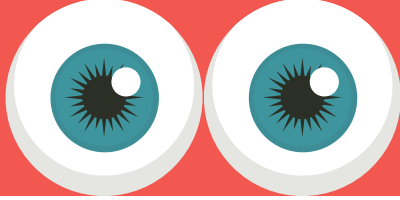


Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

What Are Magnets?

↓ More

Keep Scrolling to See



Inside!

Running out of time to teach science?

Integrating content into your reading block can cover reading AND science.

Why

Need standards-based nonfiction?

The questions address ELA standards to make it easier to integrate.

Need text written for 2nd graders?

These original passages were written specifically for 2nd graders

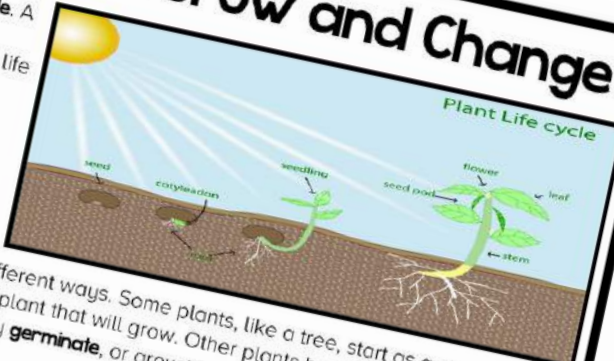
 **More**

Perfect for:

- Close Reading with Informational Text
- Science Integration
- Science Centers
- Guided Reading
- Shared Reading
- Independent Practice
- Morning Work

How Do Plants Grow and Change?

All plants have a **life cycle**. A life cycle is a series of changes that occur in the life of a plant. During its life cycle, a plant can grow, change, and make more plants like itself. The plant dies at the end of its life cycle.



Plants start their life cycle in different ways. Some plants, like a tree, start as a **seed**. The kind of seed you plant is the kind of plant that will grow. Other plants begin as a bulb, cutting, or a spore. An apple seed can only **germinate**, or grow into an apple tree.

Questions:

1. What is the main idea of this passage?

2. Why is it important for a plant to make more plants like itself?

3. What does the word germinate mean?

↓ More

45 Original Short Passages:

How Does Weather Change?

The weather changes throughout the day and from day-to-day. It might be cold in the morning and hot in the afternoon. It can also be rainy one day and sunny the next or even sunny the same day!

Day-to-day changes can include wind, temperature, and cloud coverage. On sunny days, there are few clouds in the sky. On cloudy days, there are many clouds. You can observe how the weather changes. You can keep a daily log. For example, Monday might be rainy and cloudy. On Tuesday, it might be warm and sunny with few clouds.

The day changes to night as well. During the day you can see the sun. You cannot see the sun at night.



What is a Force?

Forces are all around us. Forces are the pushes and pulls that affect an object's movement.

Wind can push something away. Wind is an example of a pushing force. Wind can push a sailboat and push the boat through the water. Wind can also push a ball. Wind can be extremely strong and cause damage to roads and buildings. Strong winds occur in tornados or hurricanes.



More

Informational Text

Focused Questions

What Are Types of Energy?

There are different types of energy. Two main types of energy are **kinetic energy** and **potential energy**.

Kinetic energy is energy in motion. Electricity, moving water, and wind are good examples of kinetic energy.

Potential energy is energy that is measured in the amount of work it does, also known as stored energy. When energy that is stored such as oil is released, it can do a lot of work.

Questions:

1. Why do you think the author wrote this section? _____
2. What is the main idea of this section? _____
3. Describe kinetic energy. _____
4. Describe potential energy. _____

How Can You Observe and Measure Properties of Matter?

and measured by its properties. **Properties** are _____ that you can observe with your **senses**.

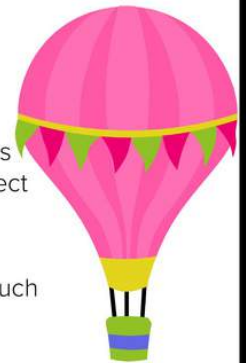
_____ as that you can observe. Some of the properties _____ **texture** (how something feels), whether an object _____ and the shape.

_____ includes size or length, the weight, **volume** (how much _____) and **temperature** (how hot or cold something _____ is). _____ some tool in which to measure.

_____ volume mean? _____

_____ is the idea that the properties of matter can _____ observed and _____

_____ that likely write "How Can You Observe and Measure the Properties of _____



↓ More

Experiment and

Extra

Sorts and Vocabulary

Science Vocabulary

push-	pull-	motion-

Habitats

What I Know About Habitats

Bouncing Energy

Activity
Students will construct an experiment where they observe kinetic energy transferring from one object to another.

Materials

- * Experiment Sheet
- * Basketball per partnership, team, or one for demonstration
- * tennis ball (same as above)
- * hard surface like a court or sidewalk

Essential Question
How can kinetic energy transfer from one object to another?

Science Concepts in the Lesson
Energy is always changing forms and transferring from one object to another. This experiment uses two balls to transfer kinetic energy from the big ball to the smaller one.

If you drop the ball at the same time, the tennis ball should bounce off the basketball and fly into the air. The two balls hit each other just after they hit the ground. Kinetic energy from the basketball is transferred through to the smaller tennis ball, sending it high into the air.

Before the balls are dropped there is another type of energy present. This type of energy is potential energy. The balls gained this as soon as they were picked up. Energy is not lost; it is just transferred to other kinds of energy.

Lesson

1. Divide the class into groups of 4 - 5 students or create a circle for the entire class to observe you doing the experiment.
2. Demonstrate how to hold the balls according to the experiment section.
3. Give a dropping signal to indicate it is time to drop the balls.
4. See what happens!

Types of Matter

Matter comes in different forms. Matter can be solid, liquid, or gas.

Match matter:

Solids	Liquids

More

Science Passages With Questions

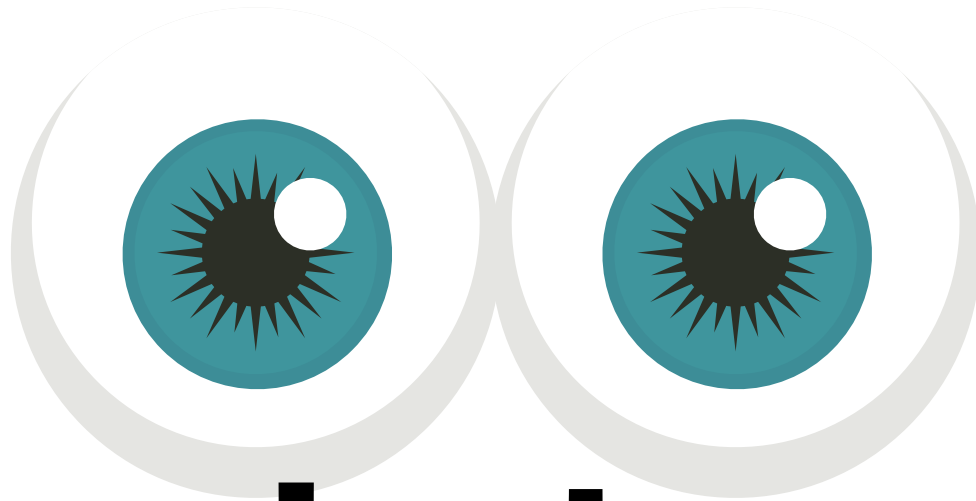


How to Use:

These passages can be used whole class or in small groups. Read over the information with students and use the questions to help teach students informational text standards. For example, ask students how readers find the main idea in a passage. Model what this might look like with one of the passages. Next allow students to work in partners and practice this skill. Finally, allow students to work independently on this question. This gradual release of responsibility will help students grown more secure and independent in their thinking.

Another idea is to allow students to work with partners. (A/B) Partner A works on the first question and shares his or her thinking aloud for partner B to praise or coach if needed. Then they reverse roles for question two.

 **More**



**Ready to see
all the sets?**

KEEP SCROLLING!

**“Love the science and reading comprehension tied
together.” ~Darcy F. ★★★★★**

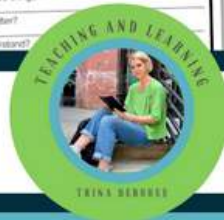
THE PRACTICE OF SCIENCE

The Practice of Science

5 Original Passages
With Standards-Based
Questions



Bonus Experiment
Print & Digital



What is Science and a Scientist?

Science is the study of the world around us. Science is done through **observation** and experimentation that tries to find answers to the many questions we have about the world. **Scientists**, the people who study science, talk to each other about what we learn. In science, we carefully describe what we see and do. We write about what we learned.

Scientists are people who ask questions looking for explanations and descriptions of the world around us. Scientists study how things work. Scientists want to have the right answers, so they do things again and again. They usually get the same results after repeating the same **experiments**. If they do not, they try to figure out why they didn't get the same answer.

1. What is science?
2. How do scientists share what they know?
3. Why do you think scientists repeat experiments?

What Are Science Tools?


A tool is something that helps us do what we need to do. Science tools help scientists do what they need to do.

Questions:

1. Which tools can be used to measure things?
2. Which tools help us see things better?
3. How do the tools help you understand?

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1. What is science? _____
2. How do scientists share what they know? _____
3. Why do you think scientists repeat experiments? _____



↓ More

Sneak Peek!

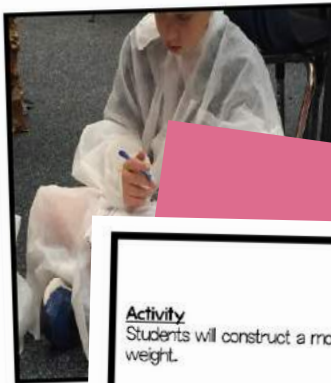
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1. What is science? _____
2. How do scientists share what they know?

3. Why do you think scientists repeat experiments?



Sink or Float?

Activity

Students will construct a model of a clay boat and determine what design works for holding the maximum amount of weight.

Materials

- * Experiment Sheet
- * Medium sized bowl, bucket, or container (at least 6 inches deep)
- * 200-300 Pennies (or other objects to use as weights)

Essential Question

How can the shape of an object make it float or sink?

Science Concepts in the Lesson

In order for an object to float, it must displace enough water to equal its weight, before it is fully submerged. An object will float if it weighs less than the amount of water it displaces. It will sink if it weighs more than the water it displaces. Differently shaped objects displace water differently, even if they are of the same material and have equal weight. This explains why huge steel ships float even though a ball of steel sinks.

Lesson

1. Divide the class into groups of 4 - 5 students.
2. Distribute a lump of clay, the Experiment Sheet, and medium sized bowl of water to each team. You might want to do this experiment outside because it can get a little messy or wet.
3. Have the kids drop the lumps of clay into the bowl of water. It will sink to the bottom.
4. Now challenge the kids to shape the clay into a shape that will float. Give the kids 10 - 15 minutes to experiment with model and design and fill out the Boat Building and Hypothesis section of the experiment sheet. Challenge each group to build a boat that will hold the most weight (pennies) as possible.
5. After each group has built a boat, test each boat to determine how many pennies each boat will hold before spilling the pennies or sinking.

Tips for Using This Activity

- * This can be messy. You can cut down newspaper or try this activity outside.

↓ More

Sneak Peek!



Asking and Answering Questions

1. What is the purpose for reading about the practice of science? (Be sure provide evidence or examples that support your answer.)

2. How do scientists share what they know? (Be sure to share a quote from the text that relates to the information.)

3. Why do scientists repeat experiments?

4. List and describe the steps in the scientific inquiry process.

1. _____
2. _____
3. _____
4. _____
5. _____

6. Why do you think it is important to know the difference between errors and inferences?

What is Science Safety?

It is very important to be safe in science and while building and designing. You can stay safe by following safety rules and using the correct tools to do the job. You should always listen closely to the directions. Be sure to pay attention to what you are doing. Most importantly **protect** yourself. Sometimes you will use tools like gloves, aprons, or goggles to protect yourself during science. These tools keep you clean and safe.



Questions:

1. Why is it important to have safety rules?

2. What does the word protect mean?

3. Why does an author use bold print?



More

Standards Included in Practice of Science

ELA Standards

RI.1: Asking and Answering Questions

RI.4: Vocabulary

RI.5: Text Features



More

Standards Included in the Practice of Science

Science

Raise questions about the natural world, investigate in teams through observation and exploration.

Ask "how do you know?" questions in appropriate situations and attempt reasonable answers when answering questions.

Compare the observations made by different groups using the same tools.

Explain how particular scientific investigations should yield similar conclusions when repeated.

Compare the observations made by different groups using the same tools.

Distinguish between empirical observation and ideas of inferences.

Explain science in a group.

THE PRACTICE OF ENGINEERING

Engineering

4 Original Passages
With Standards-Based
Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



What Are Engineering Tools?

A tool is something that helps us do what we need to do. Engineer tools help engineers do what they need to do.

Questions:

1. Which tools can be used to put things together?
2. Which tools can be used to take things apart?
3. How are engineering tools and scientist tools alike and different?



Sneak Peek!

What is an Engineer and Engineering?



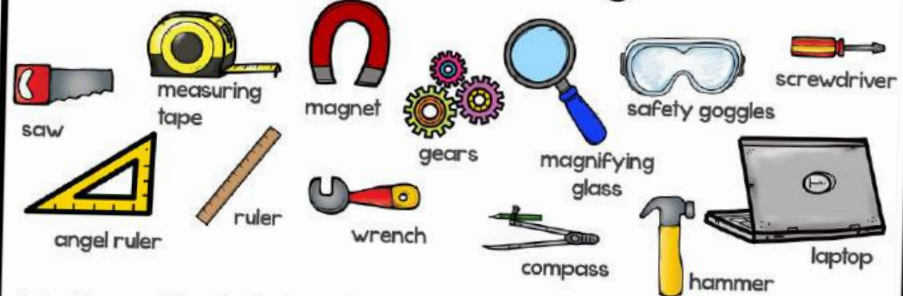
Engineering is the act of using science and math to solve problems. **Engineers**, the people who figure out how things work and find practical uses for scientific discoveries. Both scientists and inventors often get the credit for innovations that help us, but it is the engineers who are so much of those innovations available for the world.

Engineers design, evaluate, install and maintain lots of systems. They also make experts. Engineers often determine solutions to problems. The design process is to ask questions, plan, create, and improve.

1. What is an engineer?

2. Describe the engineering process.

What Are Engineering Tools?



A tool is something that helps us do what we need to do. Engineer tools help engineers do what they need to do.

Questions:

1. Which tools can be used to put things together?

2. Which tools can be used to take things apart?

3. How are engineering tools and scientist tools alike and different?

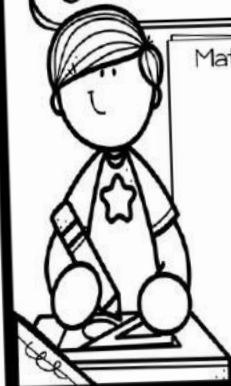


More

Sneak Peek!

Imagine My Solution

My Plan For Making My Solution



Materials Needed:

Building a Boat Challenge



Problem:

You are stranded on a desert island. You are running out of food on your island. You need to get yourself and 5 other people across a large body of water (with sharks) to another island with more food. **How will you solve this problem?**

Challenge Criteria and Constraints:

- * Build a model of a boat for at least 5 toy figurines.
- * Boat has to hold float for at least 10 minutes with **no** sinking.
- * You have ____ minutes to complete your challenge.
- * You must work in a team of ____ people.
- * The water needs to hold weight and stay afloat.
- * Your boat needs room for at least 5 toy figurines to stand freely.
- * You may use as many or as few of the supplies as you would like to, but no additional items can be used.
- * At the end of the challenge, no one may be touching the boat, and it must float in the water.



More

Standards Included in The Practice of Engineering

ELA Standards

RI.1: Asking and Answering Questions

RI.4: Vocabulary

RI.5: Text Features

RI.6: Author's Purpose/Persepective

Science

Ask questions, make observations, and gather information about a problem that can be solved by creating anew tool or improved object.

Develop a simple sketch or model to illustrate how the object can act as a solution.

Analyze data from tests of two objects designed to solve the same problem and compare and contrast.



More

HABITATS

Habitats

4 Original Passages
With Standards-Based
Questions



What Are Different Types of Habitats?



Water covers most of the Earth. Some plants and animals live in the water. Some of the water is salt water, like in the ocean. The ocean is home to many types of fish like dolphins and sharks, as well as mammals, animals that give birth to live young, like whales. Other kinds of plants and animals live in fresh water. Some freshwater animals include alligators and crocodiles.

Some kinds of plants and animals can never live in the water. They live on land. There are different kinds of land habitats. Some examples are prairies, deserts, and forests.









The desert is a habitat that gets very little rain fall. The animals and plants that live in the desert can survive with very little water.

Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



Land or Water?

Place the animal or plant in the proper habitat.

Land	Water
	
	
	
	



Sneak Peek!

What Are Different Types of Habitats?



Water covers most of the Earth. Some plants and **animals** live in the water. Some of the water is salt water, like in the **ocean**. The ocean is home to many types of fish like dolphins and sharks, as well as **mammals**, and **birds** that are born from birth to live young, like whales. Some plants and animals live in **freshwater**. **Freshwater** animals include crocodiles.

Some kinds of plants and animals live in the water. They live in different kinds of land habitats like **prairies, deserts, and mountains**.

The desert is a habitat where animals and plants can survive with little water for long periods of time.

What Do Plants and Animals Need to Survive?

A habitat is important. Habitats provide all the necessary **survival** elements for plants and animals to grow and live. These survival elements are air, water, food, and space or **shelter** (the safe place for a living thing).

The habitat has to be the right match for each animal. For example, a shark could not survive on land, and a black bear could not live in the ocean.

Plants and animals have special features, such as a bird's wings. Wings help a bird to fly and to survive.

Questions:

1. What does the word shelter mean?

2. What text evidence supports the idea that plants and animals need the perfect habitat?



3. Why did the author write this passage?



More

Sneak Peek!

How Do Plants and Animals Depend On Each Other?



Plants and animals depend on each other. Plants get **energy** from the sun. A prairie dog eats roots and seeds from plants. The prairie dog gets energy from plants. When a fox eats a prairie dog, it gets its energy from the prairie dog.

Plants provide food and **shelter** for animals. They help **regulate** the oxygen and carbon dioxide in the atmosphere. **Oxygen** is a part of the air that helps animals breathe.

Animals provide **nutrients**, help plants to grow by transferring seeds. They help plants to grow by preventing over growth. Many plants are pollinated by animals. Plants need animals to carry the seeds so that they can grow in the soil. The digging loosens the soil and makes it easier to dig in the soil.

Questions:

1. What is Oxygen?

2. How do plants and animals depend on each other? (Provide space for your answer.)

Land or Water?

Place the animal or plant in the proper habitat.

Land

Water



More

Standards Included in Habitats

ELA Standards

RI.1: Asking and Answering Questions

RI.2: Main Idea

RI.3: Connections Between Scientific Ideas or Concepts

RI.4: Vocabulary

RI.5: Text Features

Science

Compare and contrast the basic needs that all living things, including humans, have for survival.

Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.



More

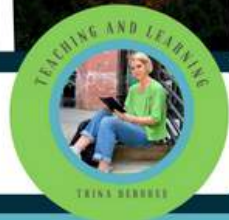
ROCKS AND SOIL

Rocks and Soil

4 Original Passages
With Standards-Based
Questions




Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



Investigating How Water Affects Soil

Name: _____

What happens when you pour water slowly and quickly onto a hill of soil?
How does moving water affect soil?




Materials
tub with soil
2 books or a binder to use as a type of ramp
measuring cup
water sprinkler (can use a paper cup with holes poked out of the bottom)

Background Knowledge
The surface of Earth changes over time. Weathering is a way in which the Earth changes.

Hypothesis
Use what you know to determine what will happen when you pour water into soil. Write your prediction below.

Experiment
1. Use the soil in your tub to make a hill. Put the books or binder under the tub.
2. You will pour water on the hill. First, predict what will happen to the soil when you pour slowly. Record your findings in the chart on the next page. Next, predict what will happen when you pour quickly. Record your predictions on the table.



Sneak Peak



How Do Rocks Change Shape?

Many rocks are very hard. They seem like they could never change shapes, but rocks do change. Rocks change shape slowly over time.

The things that can cause a rock to change or weather are wind, water, and ice. Weathering is the breaking apart or dissolving of rocks. Elements slowly break rocks down or wear them away until they become part of the soil. This is one kind of weathering.

Water in a river flows over rocks day after day and year after year. The water slowly wears away the rocks. Sometimes the water can change the texture of a rock. A rough rock may be weathered by the water and then become smooth. This is another kind of weathering.

There is another type of weathering. It happens when water dissolves all or parts of rocks.



Questions:

1. What are three things that can weather rocks?
The 3 things that can change rocks are wind^①, water^②, and ice^③.
2. Describe a type of weathering. Provide specific evidence from the text.

↓ More

Standards Included in Rocks and Soil

ELA Standards

RI.1: Asking and Answering Questions

RI.3: Connections Between Scientific Ideas or Concepts

RI.4: Vocabulary

RI.5: Text Features

Science

Recognize that Earth is made up of rocks. Rocks come in many sizes and shapes.

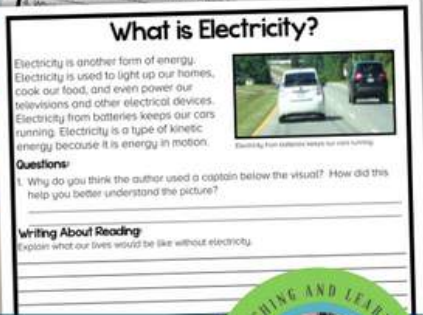
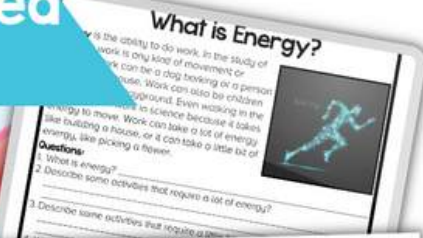
Describe how small pieces of rocks and dead plant and animal parts can be the basis of soil and explain the process by which soil is formed.

Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support plant growth.

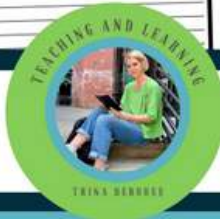
FORMS OF ENERGY

Forms of Energy

5 Original Passages
With Standards-Based
Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



Bouncing Energy

Activity
Students will construct an experiment where they observe kinetic energy transferring from one object to another.

Materials

- * Experiment Sheet
- * Basketball per partnership, team, or one for demonstration
- * tennis ball (same as above)
- * hard surface like a court or sidewalk

Essential Question
How can kinetic energy transfer from one object to another?


Science Concepts in the Lesson
Energy is always changing forms and transferring from one object to another. This experiment uses two balls to transfer kinetic energy from the big ball to the smaller one.

If you drop the ball at the same time, the tennis ball should bounce off the basketball and fly into the air. The two balls hit each other just after they hit the ground. Kinetic energy from the basketball is transferred through to the smaller tennis ball, sending it high into the air.

Before the balls are dropped there is another type of energy present. This type of energy is potential energy. The balls gained this as soon as they were picked up. Energy is not lost; it is just transferred to other kinds of energy.

Lesson

1. Divide the class into groups of 4 - 5 students or create a circle for the entire class to observe you doing the experiment.
2. Demonstrate how to hold the balls according to the experiment section.
3. Give a dropping signal to indicate it is time to drop the balls.
4. See what happens!

Three small photographs showing a person holding a basketball and a tennis ball, and then the tennis ball being launched into the air after hitting the basketball.

Sneak Peek!

What Are Types of Energy?

There are different types of energy. Two main types of energy are **kinetic energy** and **potential energy**.

Kinetic energy is energy in motion. Electricity, moving water, and wind are good examples of kinetic energy.

Potential energy is energy that is measured in the amount of work known as stored energy. When energy that is stored is released, it can do a lot of work.

Questions:

1. Why do you think the author wrote this section? _____

2. What is the main idea of this section? _____

3. Describe kinetic energy. _____

4. Describe potential energy. _____

What is Electricity?

Electricity is another form of energy. Electricity is used to light up our homes, cook our food, and even power our televisions and other electrical devices. Electricity from batteries keeps our cars running. Electricity is a type of kinetic energy because it is energy in motion.



Electricity from batteries keeps our cars running.

Questions:

1. Why do you think the author used a picture below the text? How did this help you better understand the picture?

Writing About Reading:

Explain what our lives would be like without electricity.



More





Sneak Peek!





Types of Energy

Kinetic Energy is energy that is in motion. Potential energy is stored energy and it has the potential of doing a lot of work.

Match energy:

Kinetic Energy	Potential Energy

Sitting Water  Dribbling  Cycling  Basketball 

Airplane  Water Flowing  Flying Airplane  Roller Coaster 


Bouncing Energy

Name/s: _____

Back Ground Knowledge
Energy is always changing forms and transferring from one object to another. This experiment uses two balls to transfer kinetic energy from the big ball to the smaller one.

Hypothesis
How do you think the smaller ball will transfer kinetic energy to the larger ball?

Experiment
1. Make sure you have plenty of room and a hard surface.
2. Carefully put the tennis ball on top of the basketball, holding one hand under the basketball and the other on top of the tennis ball.



3. Let go of both of the balls at exactly the same time, and observe what happens.
4. Repeat 3 times.

Data
Record what happened each time.
Trial 1: _____
Trial 2: _____
Trial 3: _____

Conclusion
What did you learn about energy? _____

↓ More

Standards Included in Forms of Energy

ELA Standards

RI.4: Vocabulary

RI.5: Text Features

RI.7: Visuals Help Make Meaning
in Text

Science

Discuss that people use electricity or other forms of energy to cook their food, cool or warm their homes, and power their cars.

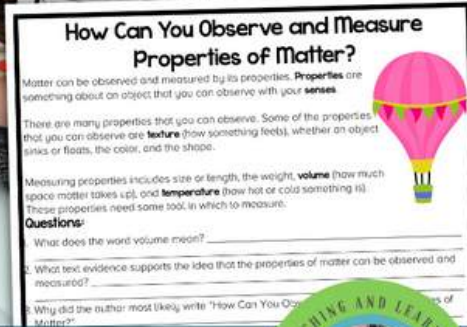


More

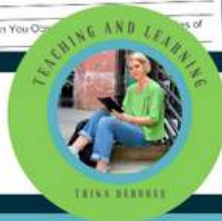
MATTER

States of Matter

5 Original Passages
With Standards-Based
Questions



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



A Matter of Air

Name: _____

Directions: Your group is going to construct a model to determine if air can protect a solid from water.

Materials
a large bowl with water
a napkin or tissue
a glass



Hypothesis
Do you think a napkin can stay dry inside a cup that is pushed into a bowl of water? Why or why not?

Experiment
Wad up the napkin or tissue and press it into the bottom of the glass.
Turn the glass upside down and push the glass into the bowl. Don't let the glass tilt to one side.
Take the class out of the water and observe the napkin.



Data
Take the napkin out of the glass. Is it wet or dry? _____ Repeat this experiment at least one more time. Is the napkin wet or dry the second time? _____

Conclusion
What did you learn about how air (a gas) can protect a solid (napkin) from the liquid (water)?



Standards Included in Matter

ELA Standards

RI.1: Asking and Answering Questions

RI.4: Vocabulary

RI.6: Author's Purpose and Perspective

RI.8: Supporting Details



More

Standards Included in Matter

Science

Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in the water, and attraction and repulsion of magnets.

Identify objects and materials as solid, liquid, or gas.

Recognize that solids have a definite shape and that liquids and gases take the shape of their container.

Observe and describe water in its solid, liquid, and gaseous states.

Measure and compare temperatures taken every day at same time.

Measure and compare the volume of liquids using containers of various shapes and sizes.

Investigate that materials can be altered to change some of their properties, but not all respond the same way.

LIFE CYCLES

Life Cycles

4 Original Passages
With Standards-Based
Questions



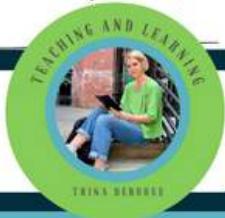
How Do Animals Grow and Change?
Animals begin their life cycles in different ways. Some animals, like reptiles and chickens, hatch from eggs. Some animals give birth to live young. These animals are called mammals.

Life Cycle of an Ant

egg
larva {it molts, sheds, many times as it grows}
pupa {A cocoon covers the pupa as it grows into an adult}
adult ant

Questions:
1. What is a mammal?

Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



How Do Animals Grow and Change?
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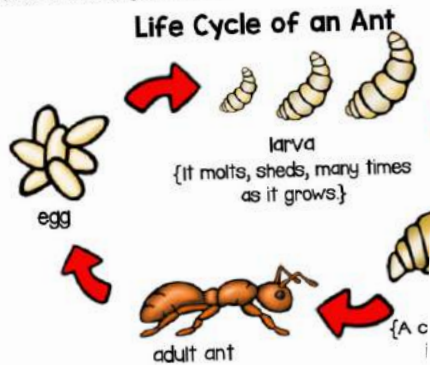
Questions:
1. What is a mammal?
2. Describe the life cycle of an ant. Use evidence from the visual above.



Sneak Peek!

How Do Animals Grow and Change?

Animals begin their life cycles in different ways. Some animals, like reptiles and chickens, hatch from eggs. Some animals give birth to live young. These animals are called mammals.



Questions:

1. What is a mammal?

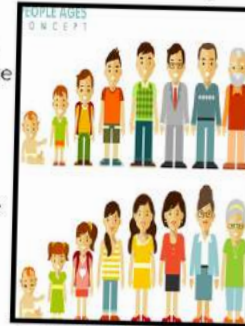
2. Describe the life cycle of an ant. Use evidence from the

How Do Humans and Animals Grow and Change?

Humans and animals grow and change during their life cycles. The beginning of the life cycle begins by being hatched or born. Both animals and humans can make more animals or humans like themselves. They also eventually die.

Humans begin as a baby. The next stage is a child. A child becomes a teenager, and a teenager grows into an adult. As humans grow and change, they may look more like other people in their families.

Humans have some things in common. All humans have parts that are the same. Every person has a heart, lungs, stomach, bones, intestines, and brains.



Humans are born and age.

Questions:

1. How does the human life cycle begin?

2. What text evidence supports the idea that humans have some things in common?

3. Why did the author write this passage?

↓ More

Sneak Peek!

Investigating Sunflower Seeds and Pumpkin Seeds

Name: _____

How can you compare how long it takes a sunflower seed and a pumpkin seed to sprout?

Materials

cups with soil (2) per team or partnership
labels for cups
sunflower seed
pumpkin seed
spoon
water



Experiment

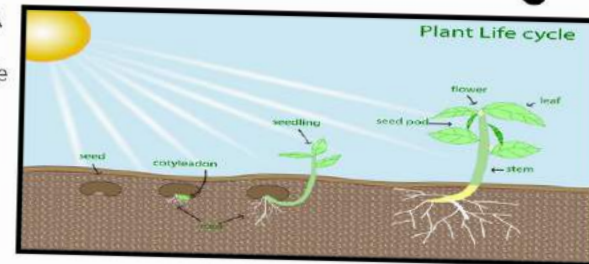
1. Label 1 cup Sunflower. Label the other cup pumpkin.
2. Put the sunflower seed in the sunflower cup. Put the pumpkin seed in the pumpkin cup.
3. Cover the seeds with soil.
4. Put 5 spoonfuls of water in each cup each day.
5. Observe and compare the cups each day. How many days does it take for each to sprout?

Data

	Sunflower
Day One	
Day Two	
Day Three	
Day Four	
Day Five	

How Do Plants Grow and Change?

All plants have a **life cycle**. A life cycle is a series of changes that occur in the life of a plant. During its life cycle, a plant can grow, change, and make more plants like itself. The plant dies at the end of its life cycle.



Plants start their life cycle in different ways. Some plants, like a tree, start as a **seed**. The kind of seed you plant is the kind of plant that will grow. Other plants begin as a bulb, cutting, or a spore. An apple seed can only **germinate**, or grow into an apple tree.

Questions:

1. What is the main idea of this passage?

2. Why is it important for a plant to make more plants like itself?

3. What does the word germinate mean?



More

Standards Included in Life Cycles

ELA Standards

RI.1: Asking and Answering Questions

RI.3: Connections Between Scientific Ideas or Concepts

RI.4: Vocabulary

RI.6: Text Features

RI.7: Visuals Support Meaning

Science

Observe and describe major stages in the life cycles of plants and animals.

Compare and contrast the basic needs that all living things, including humans have for survival.

Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet needs.

WEATHER

Weather

7 Original Passages
With Standards-Based
Questions

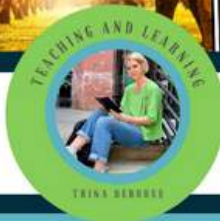
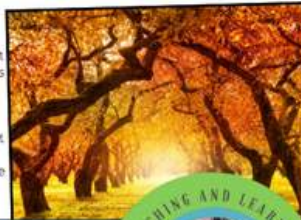
What Is Weather?

What is the weather today? Is it sunny or cloudy? Is it cold or hot? The weather is different in different seasons. The weather is also different in different parts of the world. It can be very different.

What Are The Four Seasons?

The weather changes from season to season. Many places on Earth have four seasons. The seasons are spring, summer, fall (or autumn), and winter. The seasons follow a pattern. They come in the same order each year. As the season changes, the weather or temperature changes. The amount of rain or snow depends on the season.

The amount of darkness and daylight also depends on the seasons. In spring, the days start to get longer. The temperature is warmer in spring. The summer has the longest hours of daylight. It is also the hottest season. In the fall, the days start to get shorter. The weather is cooler in fall. Winter brings the fewest hours of day-light. It is also the coldest time of the year.



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)

How Does the Sun Affect the Earth?



The sun is important to all life on Earth. The sun provides the Earth with energy. Light and heat are forms of energy that we get from the sun.

The living things on Earth need the sun's energy. Most plants use the sun's light to make food (**photosynthesis**).

The sun rises and sets each day. At noon, the sun is high in the sky. More of the sun's energy warms Earth at this time.

In the morning and evening, the sun is low in the sky. The Earth receives less of the sun's energy at these times.

The sun's energy warms the water, land, and air. The **temperature** is how hot or cold something is.



Sneak Peek!

How Can We Predict The Weather?

Scientists can predict the weather with some very specific types of weather tools, such as a weather satellite, thermometer, or rain gauge. However, something as simple as looking at the clouds can help determine the weather, as well.

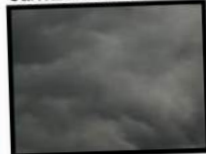
Different kinds of clouds bring different kinds of weather.

Cirrus



Rain rarely falls from cirrus clouds.

Cumulonimbus



Cumulonimbus can bring a lot of rain.

Cumulus



Puffy cumulus clouds usually indicate good weather.

Questions:

1. Describe the effects of clouds on weather. Be sure to use evidence.

2. Why do you think it is important for scientists to predict the weather?

How Does Weather Change?

The weather changes throughout the day and from day-to-day. It might be cold in the morning and hot in the afternoon. It can also be rainy one day and sunny the next or even sunny the same day!

Day-to-day changes can include wind, temperature, and cloud coverage. On sunny days, there are few clouds in the sky. On cloudy days, there are many clouds. You can observe how the weather changes. You can keep a daily log. For example, Monday might be rainy and cloudy. On Tuesday, it might be warm and sunny with few clouds.

The day changes to night as well. During the day you can see the sun. You cannot see the sun at night.

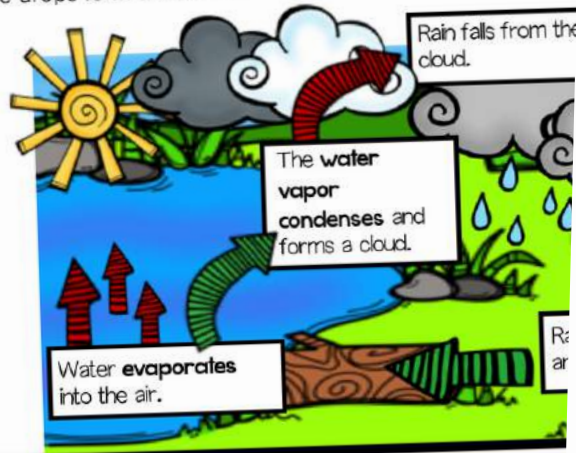


More

Sneak Peek!

How Does the Sun's Energy Affect Water?

Heat from the sun **evaporates** water into water vapor. **Water vapor** is a gas that rises into the air. Then the water vapor cools and **condenses**, or forms tiny drops of water. The drops form a cloud. Water falls from the cloud. The cycle then repeats.



Investigating How Weather Changes

Name: _____
How does the weather change from day to day?

Materials
weather chart
pencil



Experiment

*Directions: Complete weather chart.

1. Think about what the weather is like today where you live. Is it cold, hot, cool, or warm? Record your observations in your weather chart.
2. Record whether the weather is sunny, partly sunny, cloudy, or foggy.
3. Record whether the weather is wet or dry. If it is wet, is there rain, freezing rain, snow, sleet, or hail? Record your observations.
4. Also, record the air for today. Is it calm, breezy, or windy. Record your observations.
5. Collect and record data of the weather for 5 days.



More

Standards Included in Weather

ELA Standards

RI.1: Asking and Answering Questions

RI.2: Main Idea

RI.3: Connections between Science Concepts

RI.4: Vocabulary

RI.5: Text Features



More

Standards Included in Weather

Science

Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season.

Investigate by observing and measuring, that the Sun's energy, directly and indirectly, warms the water, land, and air.

Investigate, observe and describe how water left in an open container disappears (evaporates), but water in a closed container does not disappear (evaporate.)

Investigate that air is all around us and moving air is wind.

State the importance of preparing for severe weather, lightning, and other weather-related events.

FORCE AND MOTION

Force & Motion

4 Original Passages
With Standards-Based
Questions



What Are Magnets?

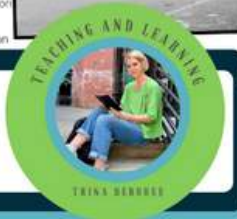
Magnets push and pull. Magnets are a special kind of metal that attract some other metals. Magnets are all around us. They are in many common day items like telephones, computers, and even refrigerators.

A magnet has two poles. A magnet has a north pole and a south pole. The strongest part of the magnet is at the poles. A north pole and a south pole are on opposite poles. These poles **attract**, or pull toward each other. Two north poles or two south poles are alike. They **repel**, or push away from each other.

What are Motion and Friction?

When something moves, it is in **motion**. Forces put objects in motion. When a football player throws a ball, the ball is in motion. Motion is not always the same. When you throw or kick a ball, you use force to move it. If you kick or throw lightly, the ball will not go very far. The harder a player throws or kicks, the farther it will go. That is because you are pushing harder.

Friction is a force. Friction is the action of one surface or object **rubbing** against another. An example of friction is when you are sliding down a slide. The movement between our body and the slide causes friction. The friction slows you down. The more friction that is there, the slower you will go. The less friction



Bonus Experiment
PRINT & DIGITAL (GOOGLE SLIDES)



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Sneak Peek

What is a Force?

Forces are all around us. Forces are the **pushes and pulls** that affect an object's **shape and movement**.

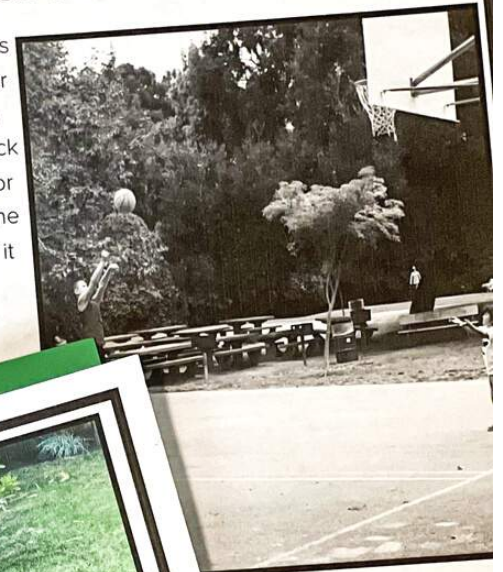
A **push moves something away**. Wind is an example of a pushing force. Wind can fill a sail on a sailboat and push the boat through the water. Wind can also push a kite in the sky. Wind can be extremely strong and can push over trees and buildings. High winds occur in tornados or hurricanes.



What are Motion and Friction?

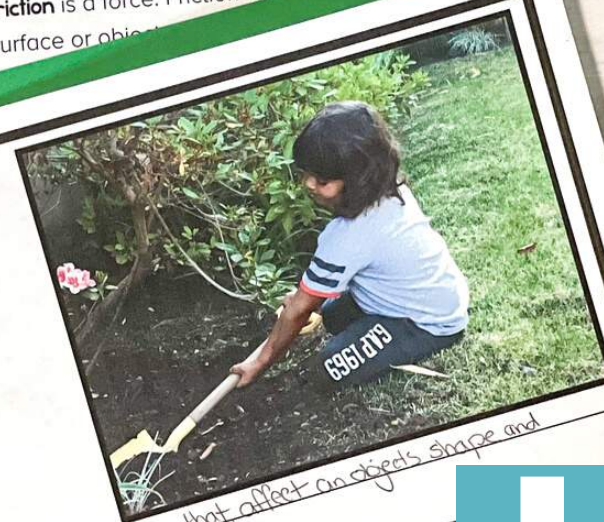
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Friction is a force. Friction is the force that acts between two surfaces or objects that are in contact.



A **pull moves something toward something else**. Picking things up is an example of a pulling force.

Objects need a force to move. Pushes and pulls make things move.

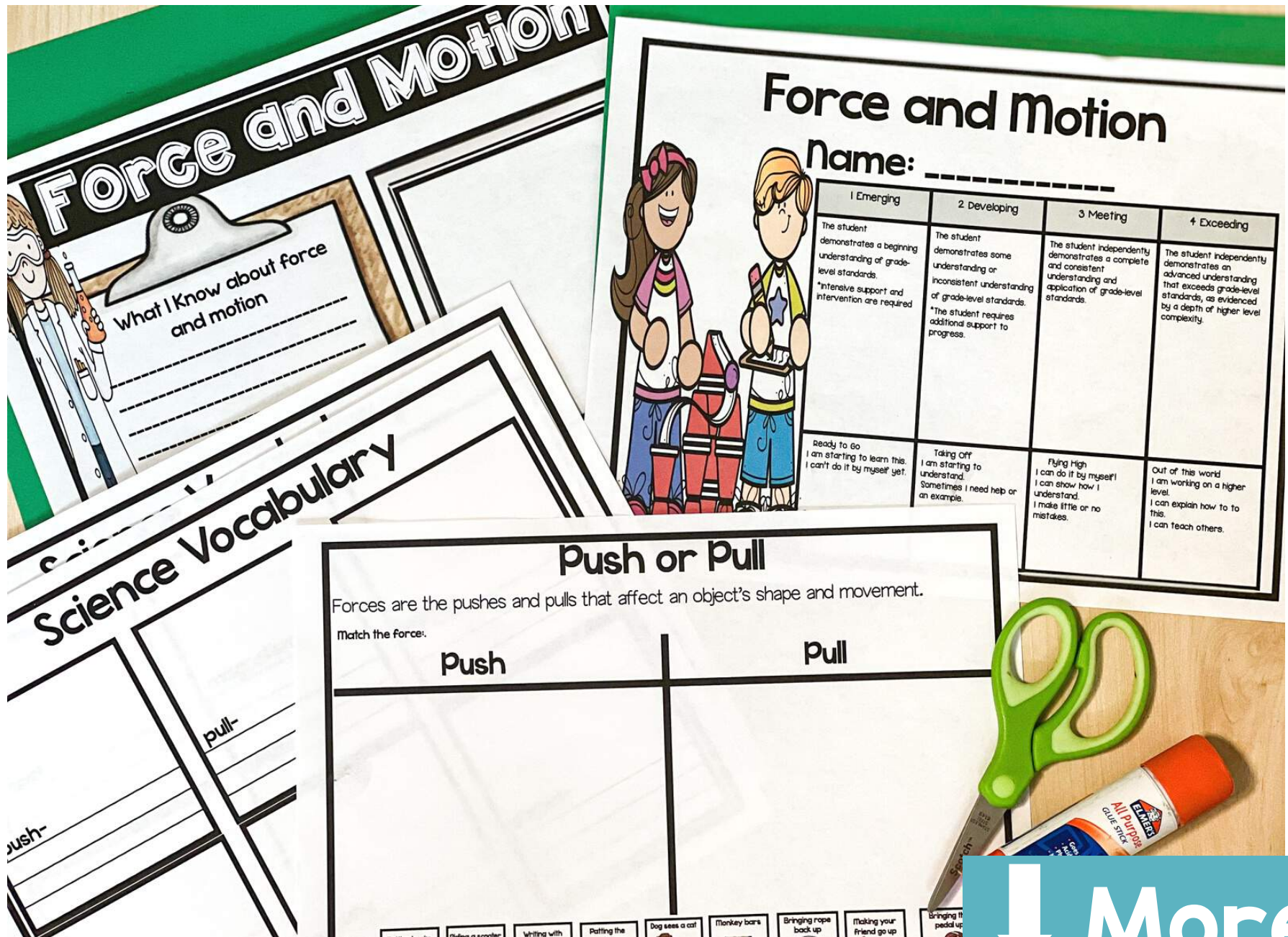


pushes and pulls that affect an object's shape and movement.



More

Sneak Peek



↓ More

Standards Included in Force and Motion

ELA Standards

RI.1: Asking and Answering Questions

RI.3: Connections Between Scientific Ideas or Concepts

RI.4: Vocabulary

RI.5: Text Features

Science

Investigate the effect of applying various push and pull on objects

Demonstrate that magnets can be used to make some things move

Recognize that objects are pulled toward the ground unless held

Demonstrate that the greater force applied, the greater the motion.



More

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About the Author

Trina Deboree has over 17 years of teaching experience in first and second grade. Trina has also been a Student Support Specialist and a Media Specialist. She earned her Master's Degree in Education Technology and Media Design and was formally Nationally Certified in Early Childhood Generalist.

Trina is a single mom of 2 incredible young people and a dog mom of Kobe her Goldendoodle. Trina is passionate about serving teachers and helping them instill a love for learning.



Let's Connect

TEACHING AND LEARNING



TRINA DEBOREE

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TEACHING AND LEARNING



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