Update to Content Not Reviewed by SRP

Request to Update Content Not Reviewed and Approved by the State Review Panel

Proposed changes shall be made available for public review on Texas Education Agency's website for a minimum of seven calendar days prior to approval.

Proclamation Year: 2024
Publisher: Studies Weekly, Inc.
Subject Area/Course: Science, 2nd Grade

Adopted Program Information

Title: Texas Science Studies Weekly: 2nd Grade
ISBN: 9781649783790-MP1

Enter the identical Program Title of your identical product that will contain the identical updates.
Identical Program Title: N/A
Identical Program ISBN: N/A

Adopted Component Information

Title: Texas Science Studies Weekly: 2nd Grade Student Edition with Online Access
ISBN: 9781649783790-SE1

Enter the identical Program Title of your identical product that will contain the identical updates.
Identical Program Title: N/A
Identical Program ISBN: N/A

Publisher's overall rationale for this update

The purpose of these updates is to enhance existing articles and to add missing non TEKS-bearing resources.

Publisher's overall description of the change

Adding visuals to text-based articles. Other additions are described individually below.

Access Information

Enter access information below to the adopted version of the instructional materials and the proposed new content.

Currently Adopted Content URL: online.studiesweekly.com/login
Currently Adopted Content Username: TXSNadoption
Currently Adopted Content Password: Demo2023

Proposed Updated Content URL: Direct links to the resources are provided below.
Proposed Updated Content Username: none required
Proposed Updated Content Password: none required

Update to Content Not Reviewed by SRP

Update comparison:

Each change in the component on this form should be documented in the update comparison below. You must submit a separate request form for **each component**, not each change. (Note: Repeat this section as often as needed by copying and pasting the entire area from the divided line above the **Description of the specific location and hyperlinking to the exact location of the currently adopted content** to the dividing line below the *Screenshot of Proposed New Content*.)

Description of the specific location and hyperlink to the exact location of the currently adopted content.

Extended Reading: TEKS Explained: Standard 13D found in Unit 20, Week 32, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2009/week/17413/articles/96429

Description of the specific location and hyperlink to the exact location of the proposed updated content.

Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.

Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.

Adding an image of a monarch butterfly.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP

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0:00 / 1:50 1

A butterfly's life cycle is unique. The young animal, which is a caterpillar, does not resemble its parents. To investigate this life cycle, you need giant swallowtail butterfly eggs. Eggs are the first stage of the life cycle. The round eggs are a cream or brown color. They are coated in an orange liquid. This helps them stick to a leaf. Place the eggs in a container, and keep them moist and warm. In the next stage, the eggs hatch into caterpillars. The caterpillars are long and brown. In the next stage, the caterpillar makes a protective shell. The shell is called a chrysalis. Inside the chrysalis, the caterpillar is changing. It is forming the parts of a giant swallowtail butterfly. In the next stage, a butterfly is fully formed and leaves the chrysalis. The giant swallowtail butterfly has black wings with yellow markings. Even though the caterpillars and butterflies don't look alike, they are part of the same life cycle.

Let's investigate the unique life cycle of a frog. This is another animal that does not look like its parents. For your investigation, you need frog eggs. Eggs are the first stage in a frog's life cycle. They are soft and clear, with a black spot in the middle. In the next stage, the eggs hatch into tadpoles. You'll see that tadpoles have small, egg-shaped bodies. They also have a tail to help them swim. The tadpoles grow into a froglet. In your investigation, you'll see the froglet has back legs. They begin to grow front legs. Their tail gets shorter and begins to look like a frog. In the final stage, the frog is fully grown. It is an adult. It has four legs and no tail. They can survive out of the water. In your investigation, you'll be able to identify that tadpoles do not resemble adult frogs, but are still part of the same life cycle.

Screenshot of Proposed Updated Content

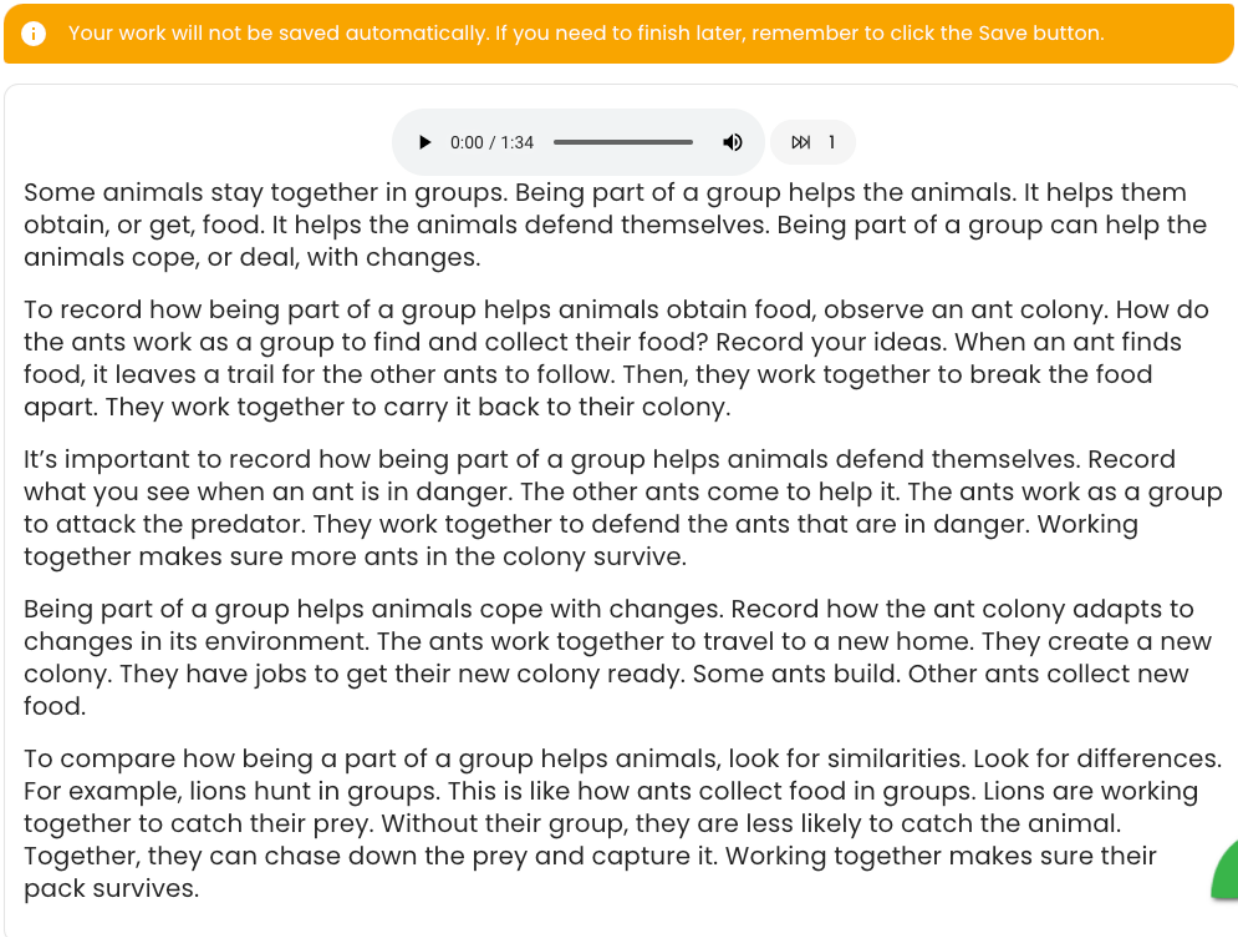
Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 13C found in Unit 19, Week 30, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2000/week/17398/articles/96333

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of cows in a pasture.

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 13B found in Unit 18, Week 28, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2008/week/17411/articles/96417

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.

Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.

Adding an image of an elephant.

Screenshot of Currently Adopted Content

Your work will not be saved automatically. If you need to finish later, remember to click the Save button.

It's important to record, or write down, how structures help animals find and take in food, water, and air. Watch a video of an elephant. Write down the structures you see. Its eyes, mouth, and trunk are structures. Watch the elephant for a little while longer. You'll see its eyes help it find food and water. Its mouth helps the elephant take in food and water. The elephant's trunk helps it find and take in air. Record what you see by writing it down.

It's important to record how animals have behaviors that help them find and take in food, water, and air. Animals have to learn to find and take in these things. Notice how the animal acts. How the animal acts is its behavior. Continue watching the video of an elephant. How is the behavior helping the elephant? Record your ideas on a piece of paper. An elephant travels in a group led by an adult female elephant. This is a behavior. In their group, the adult female elephant finds and leads the group to food and water. The elephant grabs the food with its trunk. The trunk brings the food to the elephant's mouth. This is a behavior that helps the elephant take in food. The elephant has learned to take in water with its trunk. It only sucks the water up part way. Then, it squirts the water into its mouth to drink. Elephants have a behavior to help them find air. When they swim, they raise their trunks. They keep their trunks above the water to find air to breathe.

You can compare how the structures and behaviors of animals help them find and take in food, water, and air. Many animals have similar structures to help them take in food and water. They have mouths. Many animals have nostrils or a nose to help them take in air. Sometimes structures look different, even if they do the same thing. Compare an elephant's trunk to a dog's snout. Both structures help the animal take in air, but they do not look the same!

Behaviors can be compared, too. Sometimes behaviors are similar. Many animals breathe to take in air. But, they have different behaviors for breathing. Fish learn to stay underwater to breathe with their gills. Dolphins learn to swim to the surface to take in air with their blowhole and lungs. Animals have different behaviors to take in water. Some animals, like fish, learn to take in water with their mouths. Other animals, like dolphins, learn to take in water through the food they eat. Finding food and water sources is important. Some animals, like elephants, have a leader who leads them to their food and water source. Other animals, like lions, work as a pack to find their food and water sources. Animals like lions hunt in groups. This behavior helps them find, catch, and tear apart large prey. Compare this to a leopard's hunting behavior. A leopard hunts alone. This behavior helps the leopard hide and surprise its food to catch it. Then, it takes its prey into a tree to eat it alone.

As you can see, all animals have structures and behaviors. Structures and behaviors help them survive. They help them find and take in food, water, or air.

Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 13A found in Unit 17, Week 26, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1997/week/17394/articles/96307

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.

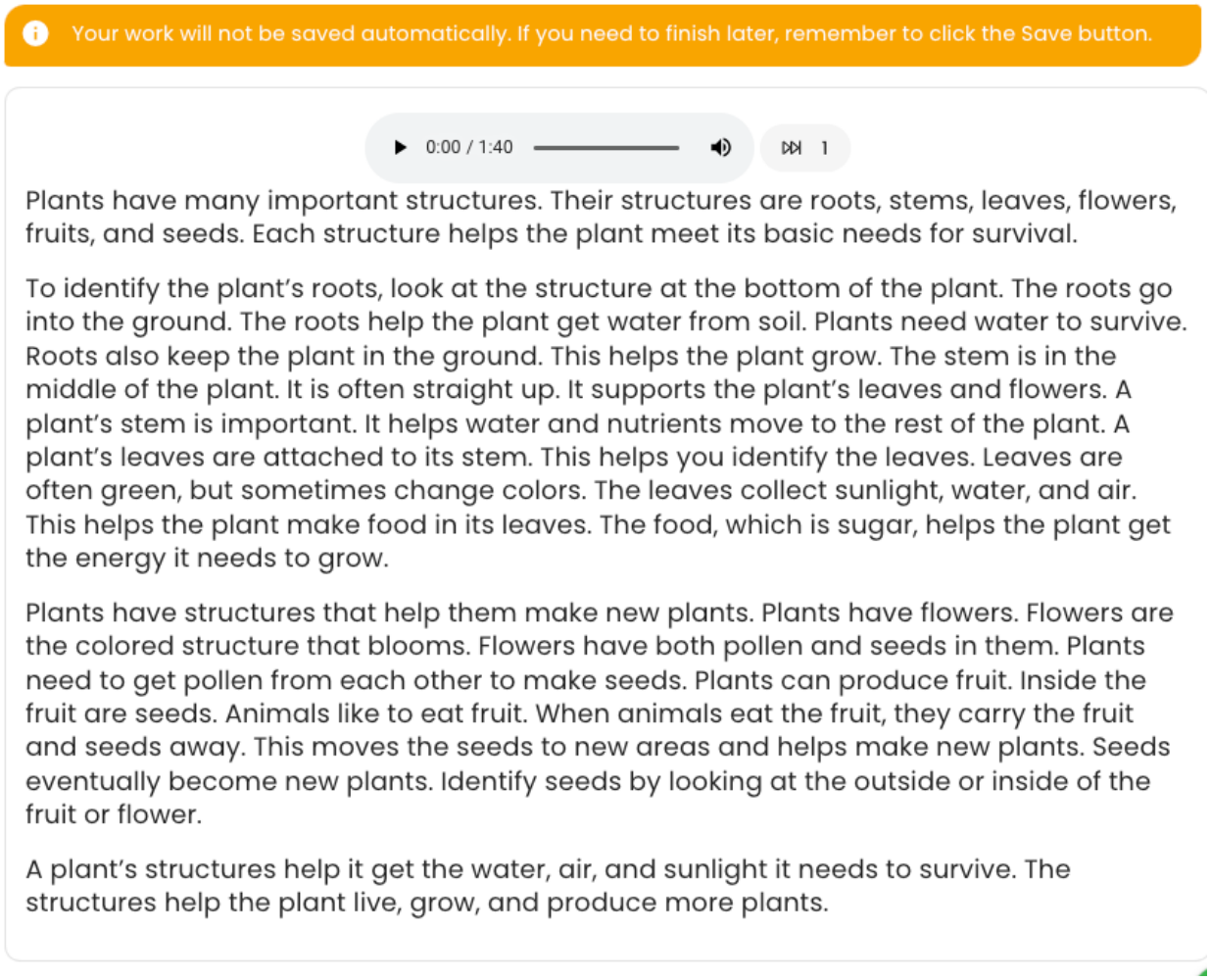
Adding image to TEKS Explained article to add interest and real-world application.

Update to Content Not Reviewed by SRP

Publisher's description of this change if different from overall description.

Adding an image of chia plants.

Screenshot of Currently Adopted Content



Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 12C found in Unit 16, Week 25, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2003/week/17403/articles/96366

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of potted plants.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP

Your work will not be saved automatically. If you need to finish later, remember to click the Save button.

0:00 / 2:24 1

Plants need help to move their pollen and seeds to make new plants. They depend on other living things, wind, or water for help.

Pollen moves from one plant to another to produce new plants. Seeds are also important because they grow into new plants. Wind can knock pollen and seeds loose, and carry them in gusts. Similarly, water moves pollen and seeds. Water carries them in its currents. Wind and water help pollen transfer to other plants. They help seeds move to new areas.

Animals are a big help with pollination. When animals drink nectar, the plant's pollen sticks to the animals. Then, the animal moves to a new plant. When they move, they carry the pollen with them. The pollen transports from one plant to the next. Animals also help move seeds. Seeds get stuck to animals' fur or feathers, and move along with the animal.

To demonstrate how living things, wind, and water move pollen you need: two flower cutouts, cheese puffs, and small candy pieces. First, mix the cheese puffs and candy together. Then, put one flower on a desk. Put half the cheese puffs and candy in the middle of the flower. Put the other flower on a different desk. Put the rest of the cheese puffs and candy in the middle of that flower. Wash your hands. Make sure all the powder from the cheese puff is washed off. The candy represents the nectar animals eat. The cheese puffs represent pollen. Now, use your hand to collect candy from the first flower. Look at your hand. You'll see powder from the cheese puffs has stuck to it! Now, go to the next flower. Grab the candy from that flower. Some powder from your hand moves onto that flower. You've demonstrated how living things move pollen from one flower to another.

To demonstrate how plants need things to move their seeds make a model. Use a cotton ball, feathers, straws, and glue to make a model of a dandelion seed. After you make your seed, demonstrate how to make your seed move. You are a living thing, so carry your seed to a new place. Try blowing on your seed to demonstrate how wind moves seeds. Lastly, put your seed in a sink with water. Use your hands to make waves. You've demonstrated how water moves seeds.

Without living things, wind, or water, plants would have a hard time making new plants! They need these three things to help them with pollination and to move their seeds around.

Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 12B found in Unit 15, Week 23, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1999/week/17396/articles/96321

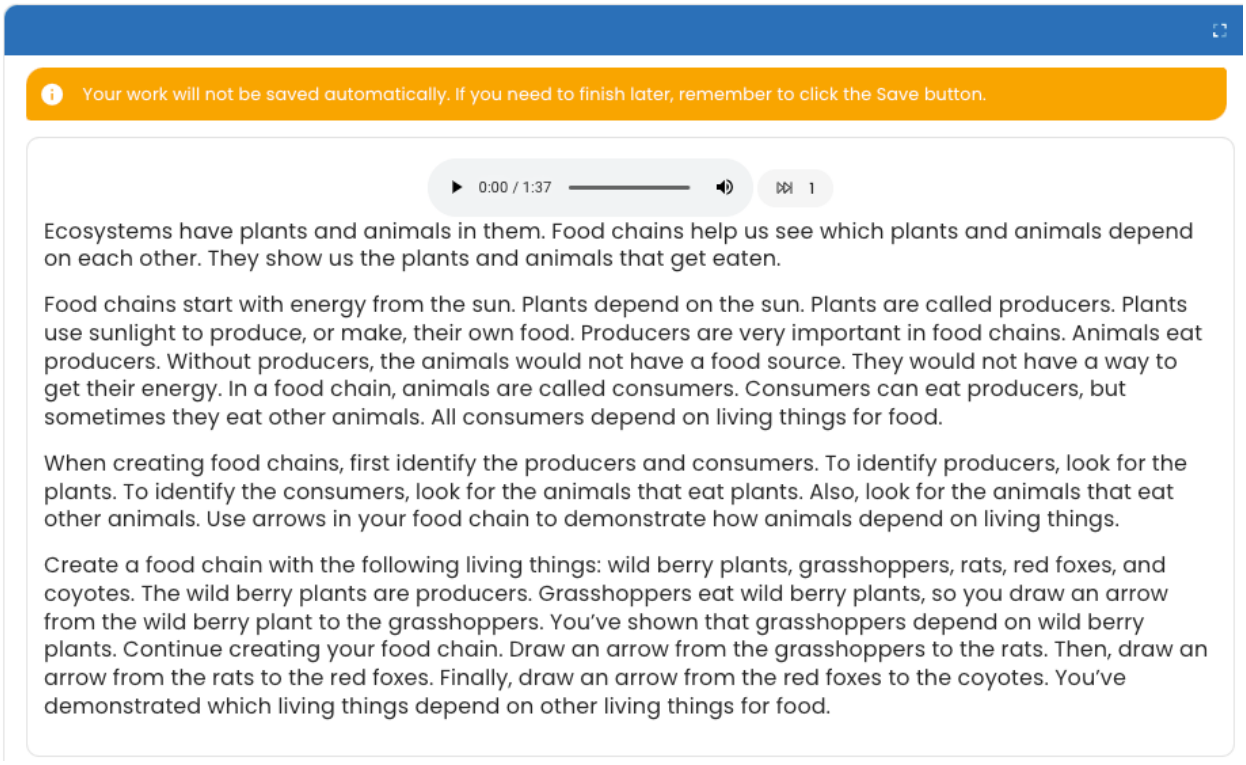
Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of an ecosystem.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 12A found in Unit 14, Week 22, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2007/week/17409/articles/96405

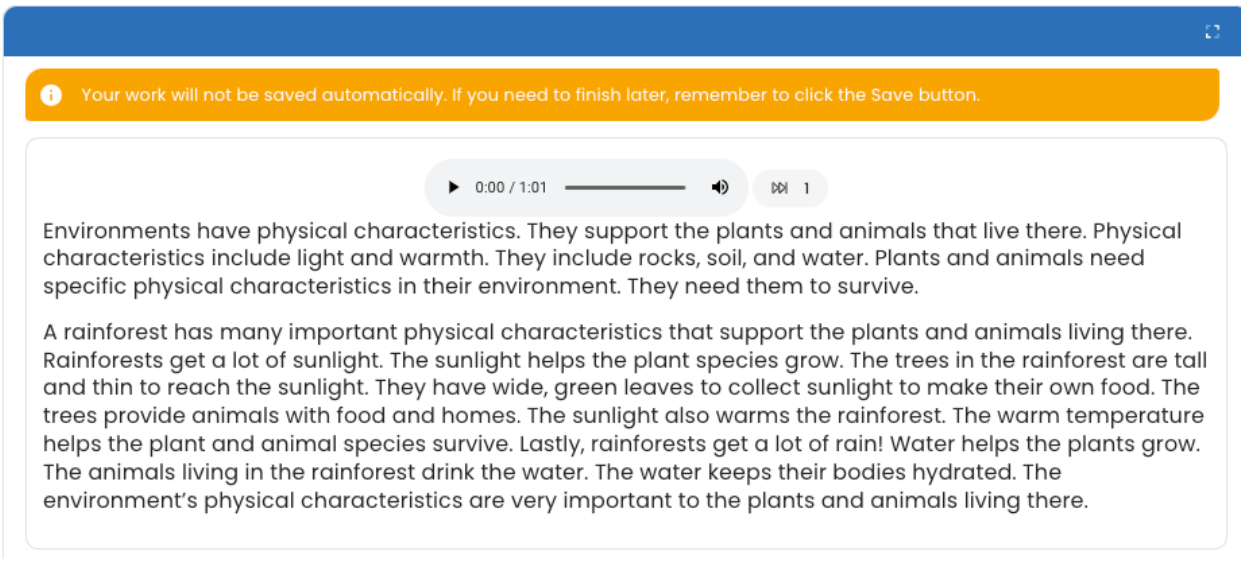
Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of different environments.

Update to Content Not Reviewed by SRP

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted

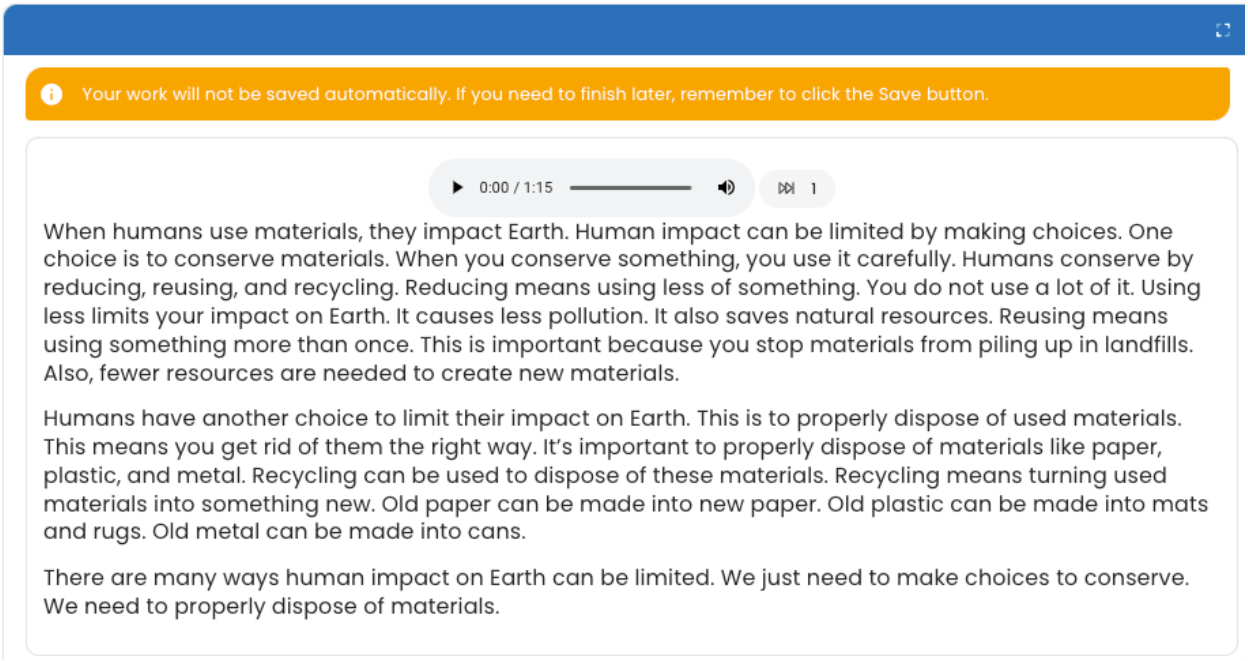
content.
Extended Reading: TEKS Explained: Standard 11B found in Unit 13, Week 21, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1995/week/17392/articles/96292

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a child recycling.

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 11A found in Unit 12, Week 20, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1998/week/17395/articles/96314

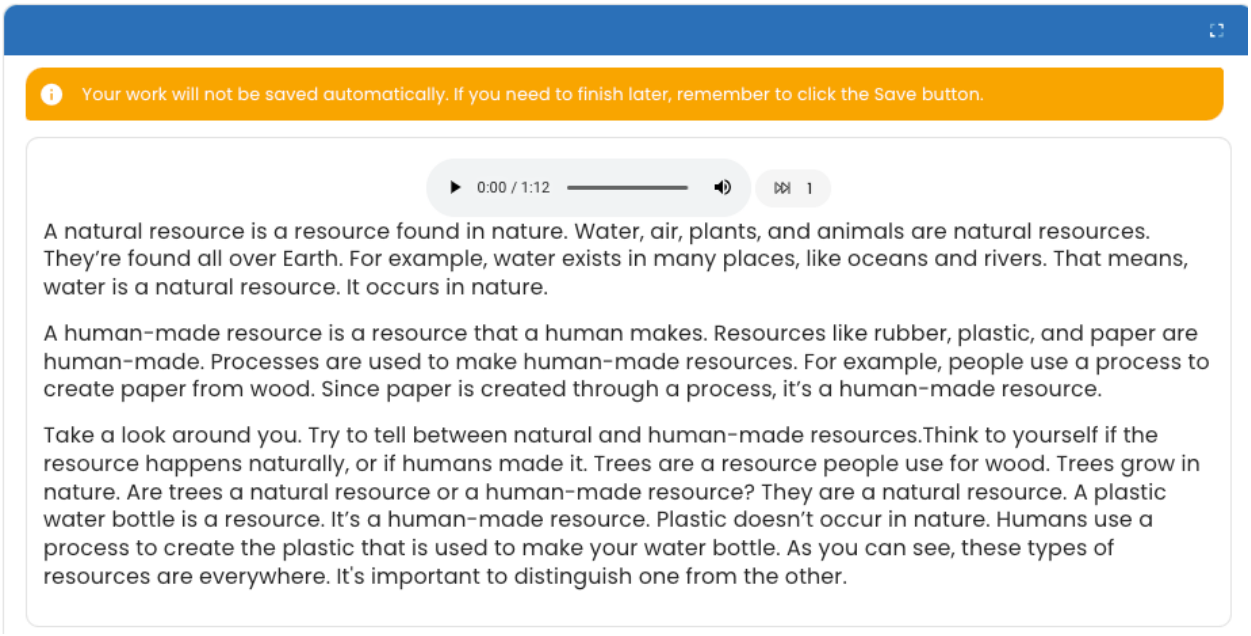
Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a lake.

Update to Content Not Reviewed by SRP

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Update to Content Not Reviewed by SRP

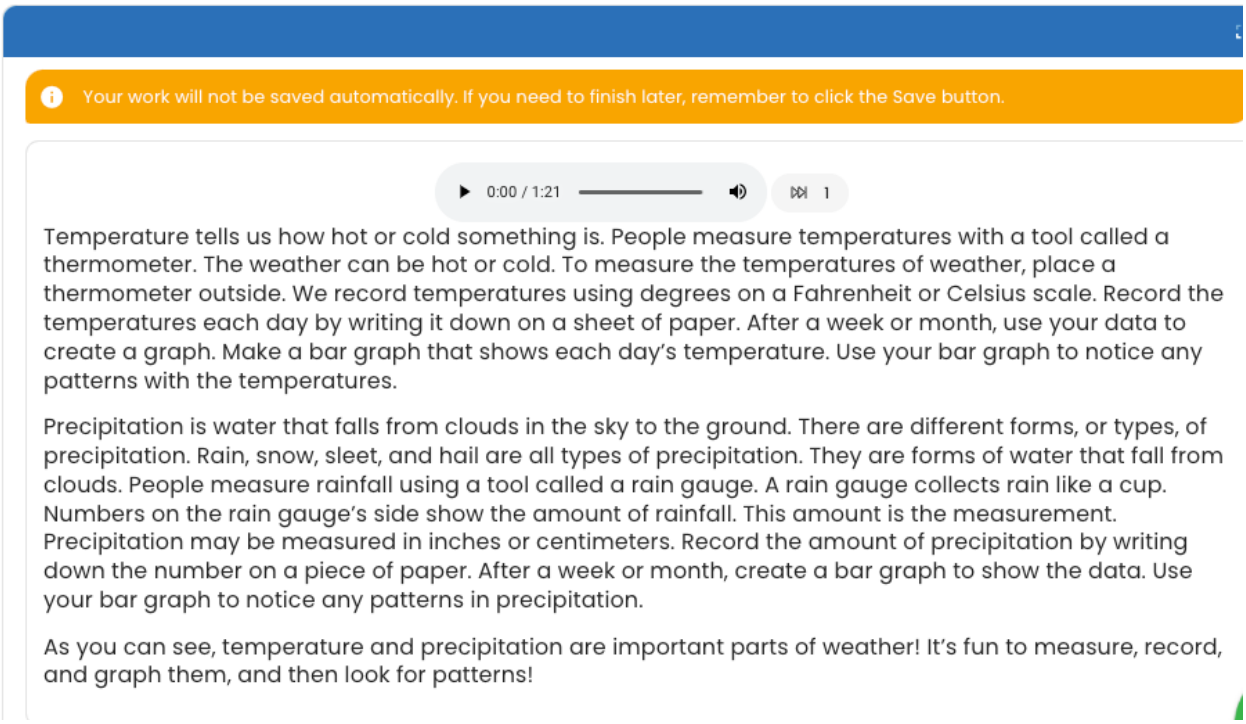
Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 10B found in Unit 11, Week 19, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1992/week/17389/articles/96270

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

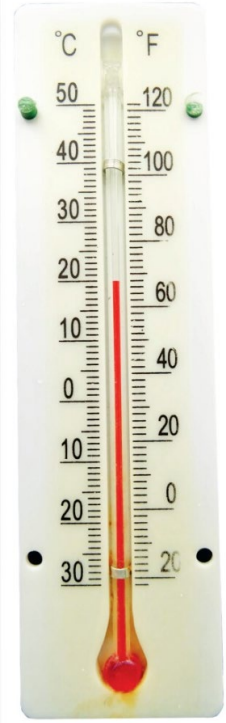
Publisher's description of this change if different from overall description.
Adding an image of a thermometer.

Screenshot of Currently Adopted Content



Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 10C found in Unit 11, Week 19, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1992/week/17389/articles/96271

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a hurricane.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP

Your work will not be saved automatically. If you need to finish later, remember to click the Save button.

0:00 / 2:20 1

Weather can be severe. This means the weather is extremely bad and serious. Hurricanes, tornadoes, and floods are types of severe weather events. Different regions have different types of severe weather. In some regions, certain events are more likely to happen than others.

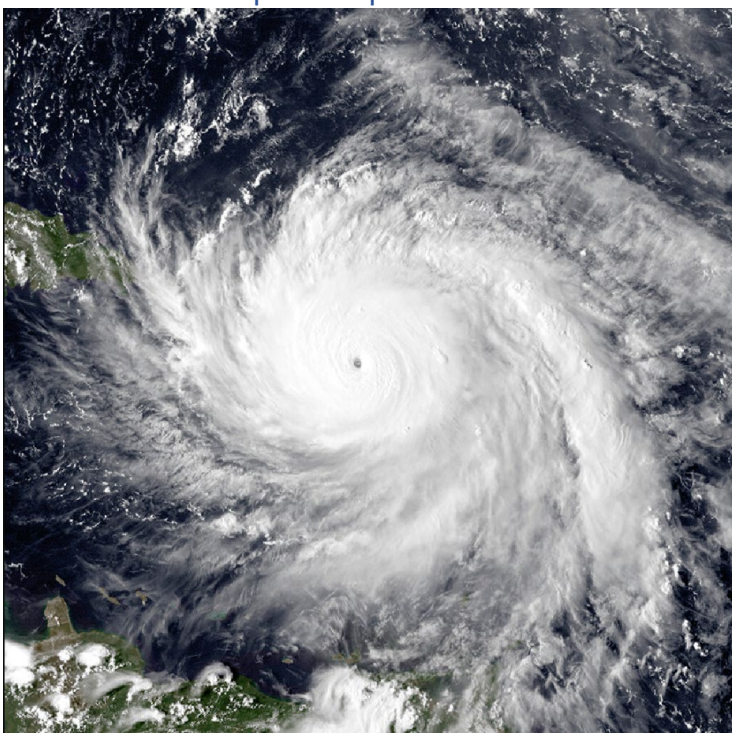
Hurricanes are most likely to form in regions with warm ocean water. Areas near the Gulf of Mexico and the Atlantic Ocean are most likely to experience hurricanes. To investigate hurricanes, you need a few things. Get a large bowl, cornstarch, blue food coloring, gravel, sand, and a wooden spoon. Place the gravel and sand in your bowl. Fill the rest of the bowl with water. Then, stir the cornstarch into the water. Stir until the water looks milky. Wait for the water to stop moving. Now, add blue food coloring to it. Slowly stir the food coloring with the spoon. You'll see the food coloring move in a circular motion. This is how a hurricane forms and moves.

Tornadoes form over land. Their energy comes from large, severe thunderstorms. Tornadoes form in regions that have strong thunderstorms. Tornado Alley is a region that experiences a lot of tornadoes. To investigate tornadoes, you need a jar, water, liquid soap, and vinegar. Fill the jar three-fourths of the way with water. Put three squirts of liquid soap inside the jar. Add one tablespoon of vinegar. Close the jar tightly. Move the jar in a swirling motion. Look inside and you'll see a funnel shape. This resembles a tornado. This investigation shows what a tornado looks like and how it moves.

Floods can happen anywhere. They are most likely to occur in areas near water, like coastal areas or rivers. To investigate floods, you need a toy house, toy trees, gravel, sand, newspaper, water, and a stream table. Make balls of newspaper. Use them to line half of the stream table's bottom. Press sand and gravel on top of the newspaper. Make a slope by piling the sand and gravel higher at the stream table's end. Put houses at the slope's top. Put trees at the slope's bottom. Add water to the empty half of the stream table until the water floods the land. In your investigation, water covers the trees and reaches the houses. You've shown the effects of floods.

Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 10A found in Unit 10, Week 17, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2006/week/17408/articles/96398

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a river delta.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP

Your work will not be saved automatically. If you need to finish later, remember to click the Save button.

0:00 / 2:13 1

Wind and water are constantly moving. When wind and water move, they make other things move, too. Wind and water can move particles of soil and rock. Particles are tiny pieces. Wind and water move the particles across Earth's surface.

Soil is the top layer of the Earth's surface. When the wind blows, it picks up dry particles of soil. The wind's gusts carry the soil particles across Earth's surface. We know this as dust. To investigate how wind moves soil particles, use a baking pan, soil, and a hair dryer. Put the soil in the baking pan. Turn the hair dryer on, and aim it toward the soil. The air from the hair dryer picks up the top layer of soil particles. It carries them across the baking pan. It deposits them on the other side.

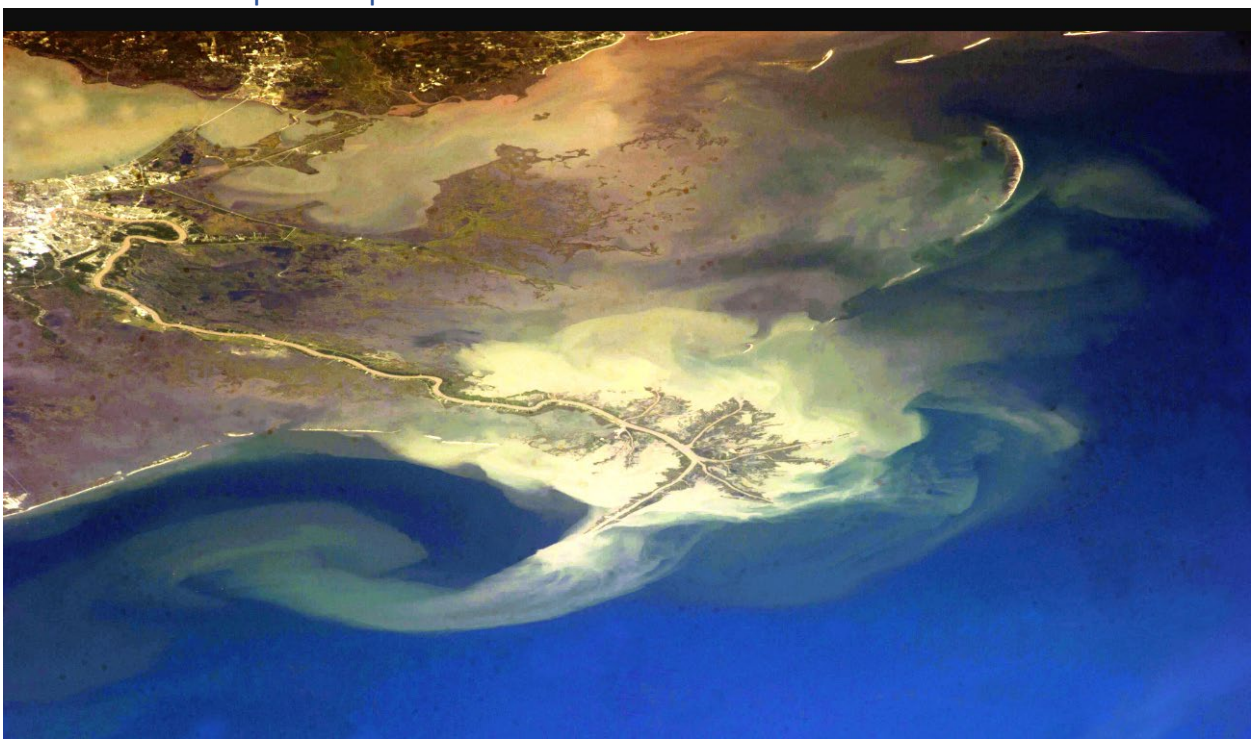
Wind also moves rock particles. The wind picks them up, and carries them across Earth's surface. To investigate, repeat the wind investigation. This time, use sand. Remember, sand is made of weathered rock particles. Place the sand in the baking pan. Turn the hair dryer on and aim it at the sand. The top layer of sand is picked up and moved across the baking pan. The particles are deposited in a mound on the other side of the pan. It takes a stronger wind to move rock particles. Sand dunes are evidence of wind-blown sand.

Water moves both soil and rock particles across Earth's surface. Rain, streams, and oceans are examples of water on Earth. When water moves over Earth's surface, it picks up the soil and rock particles. Then, the water carries both particles from one place to another. To investigate how water moves soil and rock particles, use a baking pan, soil, rocks, and a watering can. Place the soil in a layer in the baking pan. Add rocks on top. Prop up one end of the baking pan with a book. Now, on the higher side of the baking pan, slowly pour water out of the watering can. You'll see the water pick up soil particles and carry them across the baking pan. Slowly add more water until you see the water pick up the rocks and move them. River deltas are evidence of the movement of rock and soil particles by water.

As you can see, wind and water are always moving particles on Earth!

Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 9A found in Unit 9, Week 15, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1990/week/17383/articles/96236

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of our solar system.

Update to Content Not Reviewed by SRP

Screenshot of Currently Adopted Content

Your work will not be saved automatically. If you need to finish later, remember to click the Save button.

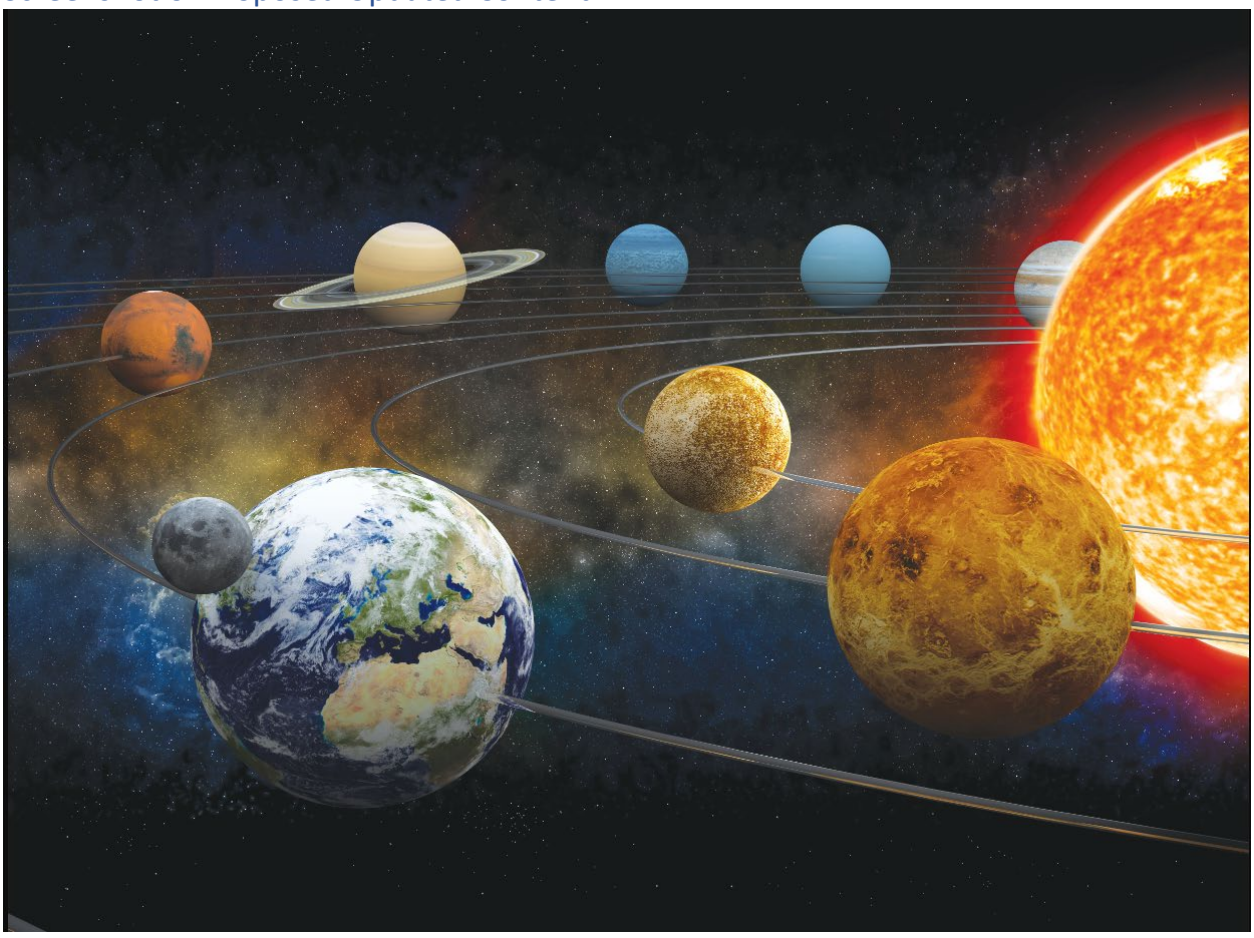
0:00 / 1:05 1

The sun, moon, and Earth are all in space. People live on the Earth, so when we look up into the sky, we see the sun and the moon. The sun, Earth, and moon all interact.

The sun is a star, and it is the closest one to Earth. The sun is very important to Earth. It provides Earth with light and heat. The sun produces bright light. Light from the sun is called sunlight. Sunlight shines on Earth's surface. Sunlight helps people and animals see. It helps plants grow. The sun also provides Earth with heat. When sunlight shines on Earth, its surface heats up. The heat helps people, plants, and animals survive.

Close your eyes and picture the moon. What do you see? Usually, people picture a big, glowing object in the night sky. But did you know the moon is not actually glowing? The moon does not make its own light. The moon reflects the sun's light. The sun's light shines on the moon's surface. The moon's surface reflects, or bounces back, the light. When this happens, the moon looks like it's glowing. However, people are seeing the reflection of the sun's light.

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 9B found in Unit 9, Week 15, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1990/week/17383/articles/96237

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

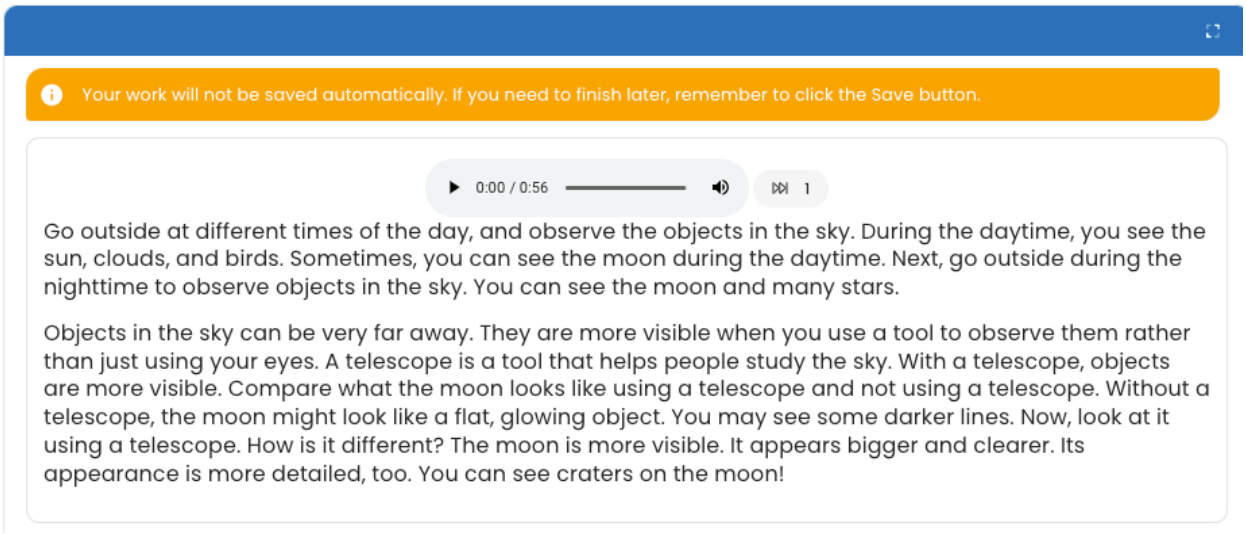
Publisher's rationale for this change if different from overall rationale.

Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.

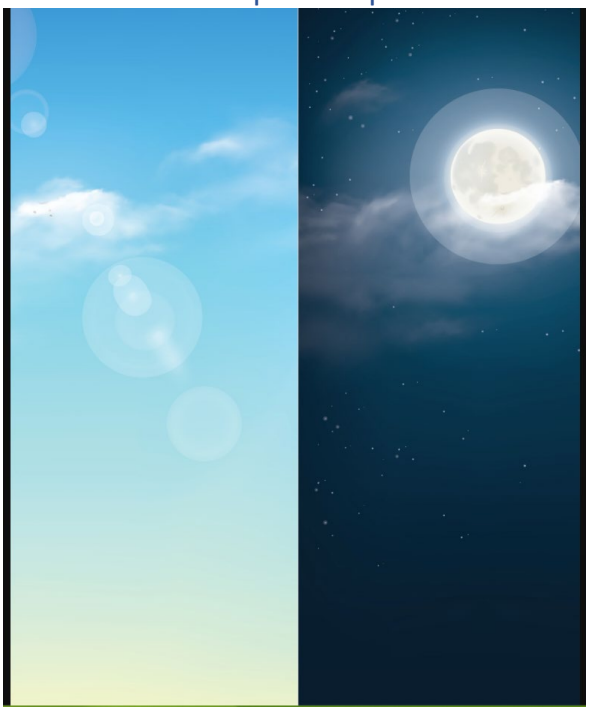
Adding an image of day and night.

Screenshot of Currently Adopted Content



Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 8C found in Unit 8, Week 13, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2002/week/17401/articles/96354

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a can phone.

Update to Content Not Reviewed by SRP

Screenshot of Currently Adopted Content

Your work will not be saved automatically. If you need to finish later, remember to click the Save button.

0:00 / 1:07 1

People communicate every day. Often, people need to communicate over a distance. They need devices to communicate over a distance. Phones, microphones, and loudspeakers are devices that help people communicate.

To design a device to communicate over a distance, use two cups and a string. Design them to use like a phone. One person will talk into one cup, and another person can listen with the other cup. The string will connect both cups.

To build this device, poke a hole in the bottom of both cups. Pull the string through one cup's hole. Tie a knot. Now, take the other end of the string. Pull it through the other cup's hole. Tie a knot. The bottoms of both cups are connected by a string. You have built your communication device! Now, stand as far away from a partner as the string allows. Put one cup up to your mouth. Have your partner put the other cup to their ear. Keep the string tight. Quietly talk into the cup. Your partner will hear you because your voice, sound, travels through the connecting string. You can use your device to more easily communicate over a distance.

Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.

Update to Content Not Reviewed by SRP

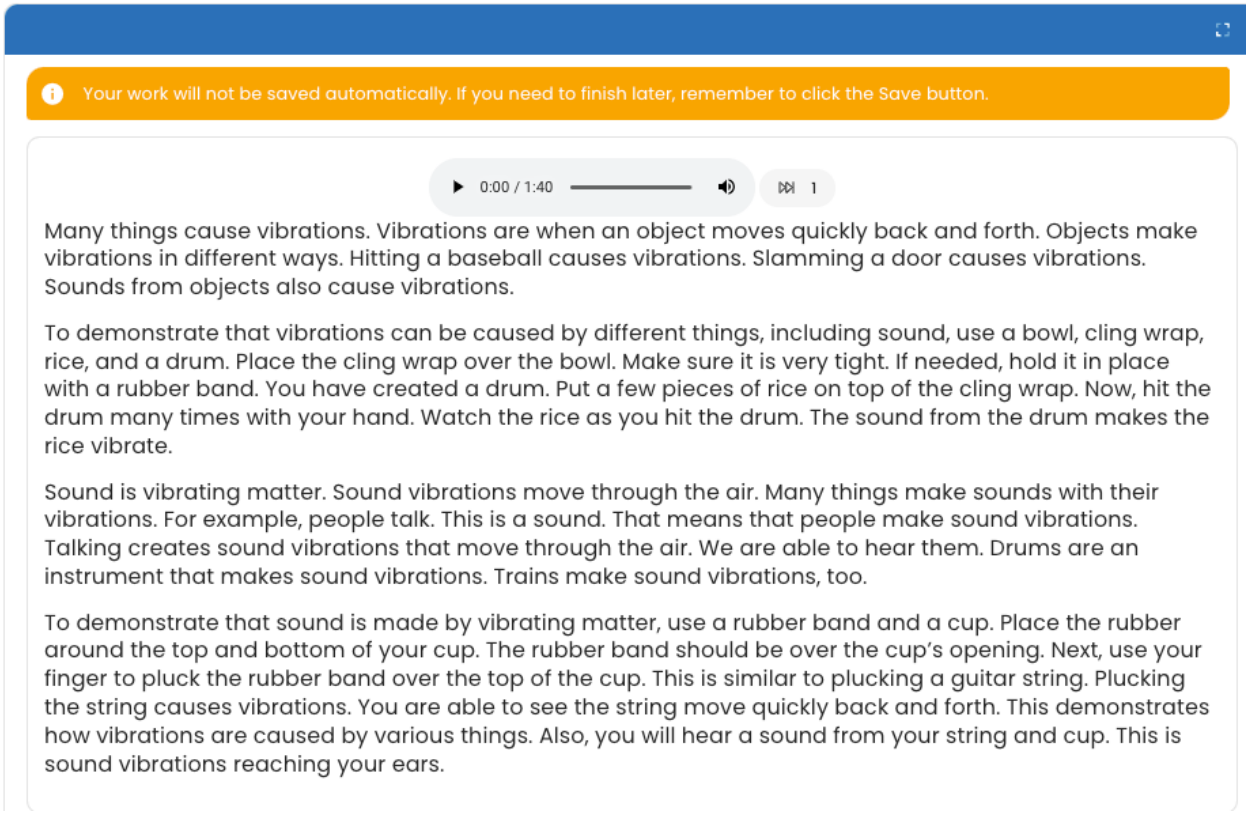
Extended Reading: TEKS Explained: Standard 8A found in Unit 7, Week 11, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1996/week/17393/articles/96299

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a drum.

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

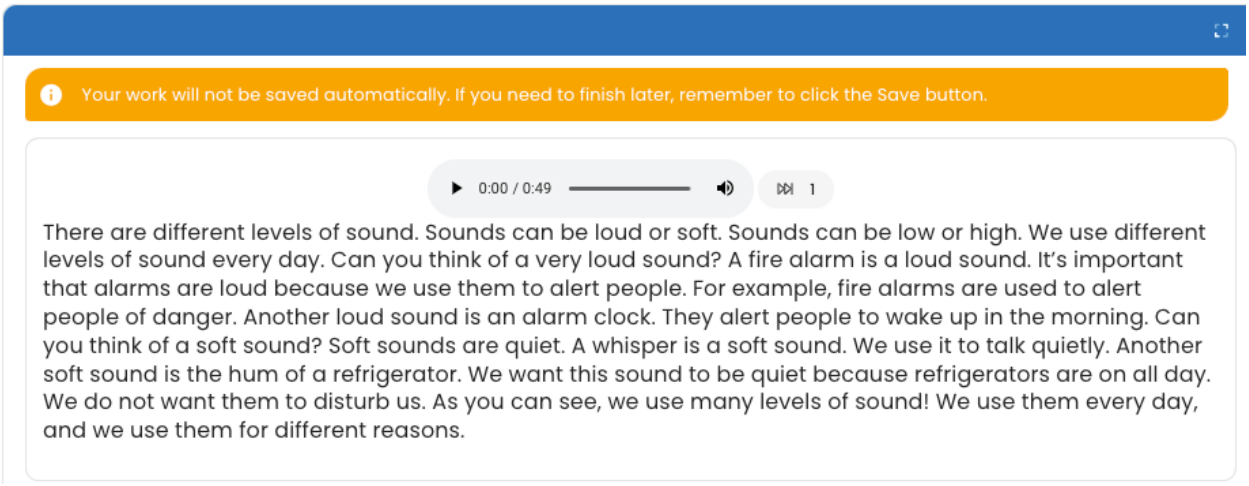
Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 8B found in Unit 7, Week 11, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1996/week/17393/articles/96300

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a child covering his ears.

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 7B found in Unit 6, Week 10, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2005/week/17406/articles/96386

Description of the specific location and hyperlink to the exact location of the proposed updated

content.
Same as above, adding an image to the text article.

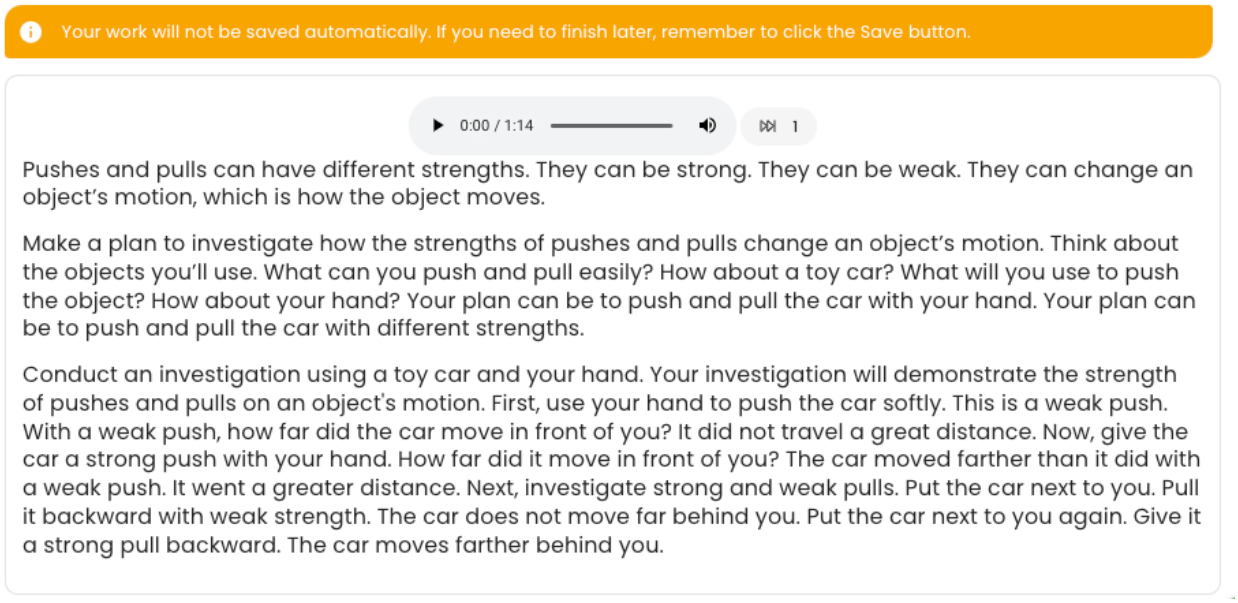
Publisher's rationale for this change if different from overall rationale.

Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.

Adding an image of a children pulling a wagon.

Screenshot of Currently Adopted Content



Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 7A found in Unit 5, Week 8, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2004/week/17404/articles/96373

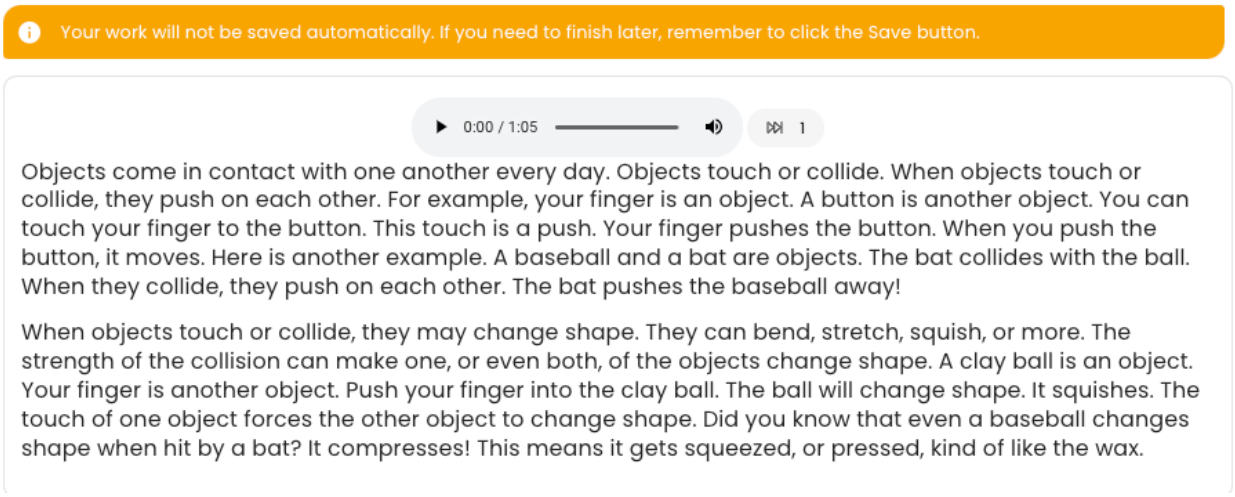
Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a collision.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 6C found in Unit 4, Week 7, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1994/week/17391/articles/96285

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Update to Content Not Reviewed by SRP

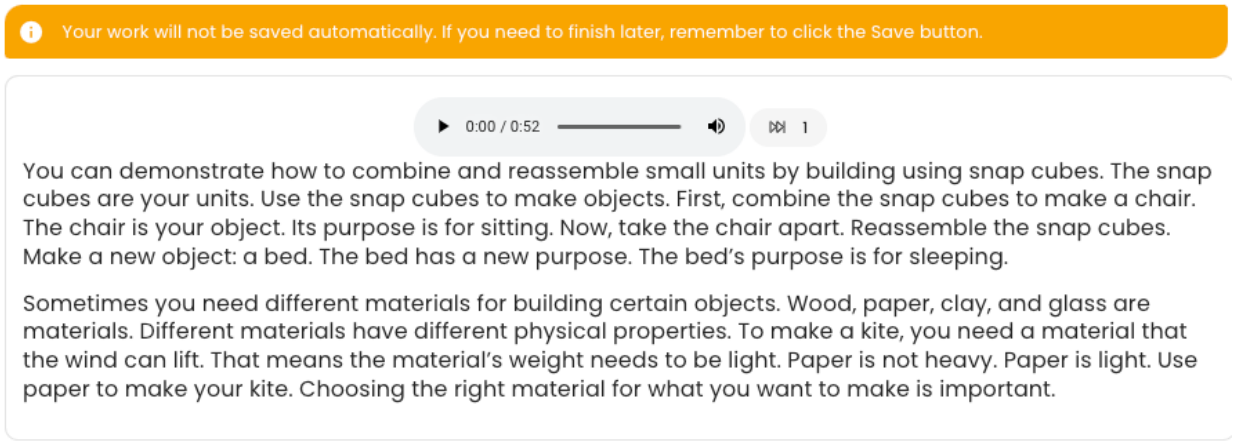
Publisher's rationale for this change if different from overall rationale.

Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.

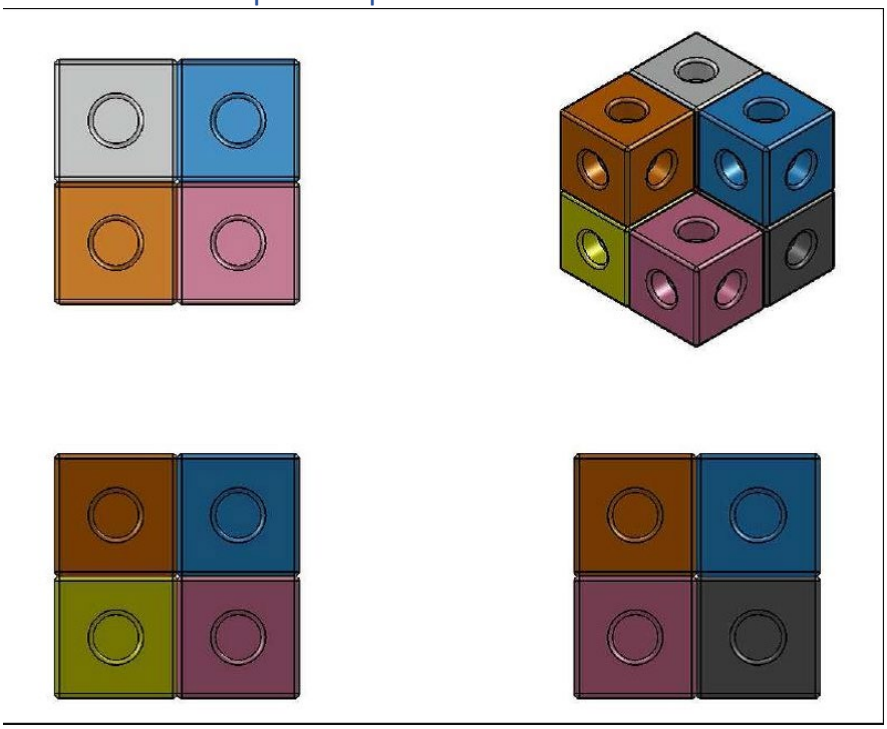
Adding an image of a snap cubes.

Screenshot of Currently Adopted Content



Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 6B found in Unit 3, Week 6, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2001/week/17399/articles/96342

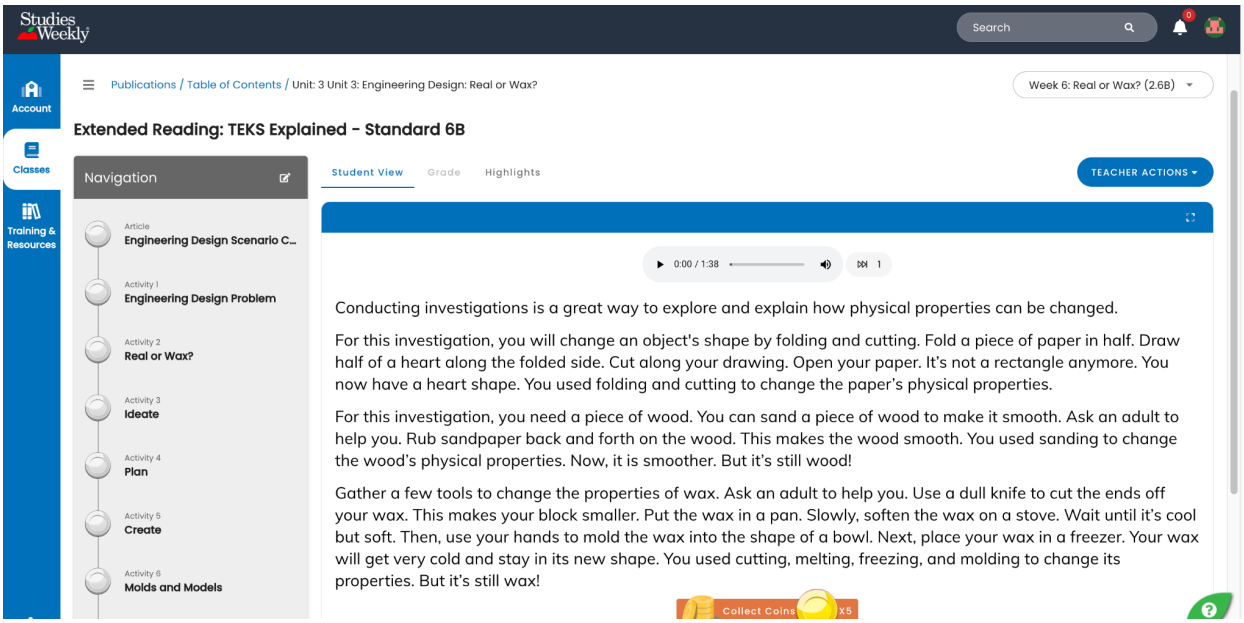
Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of a person sanding wood.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP



Screenshot of Proposed Updated Content

Update to Content Not Reviewed by SRP

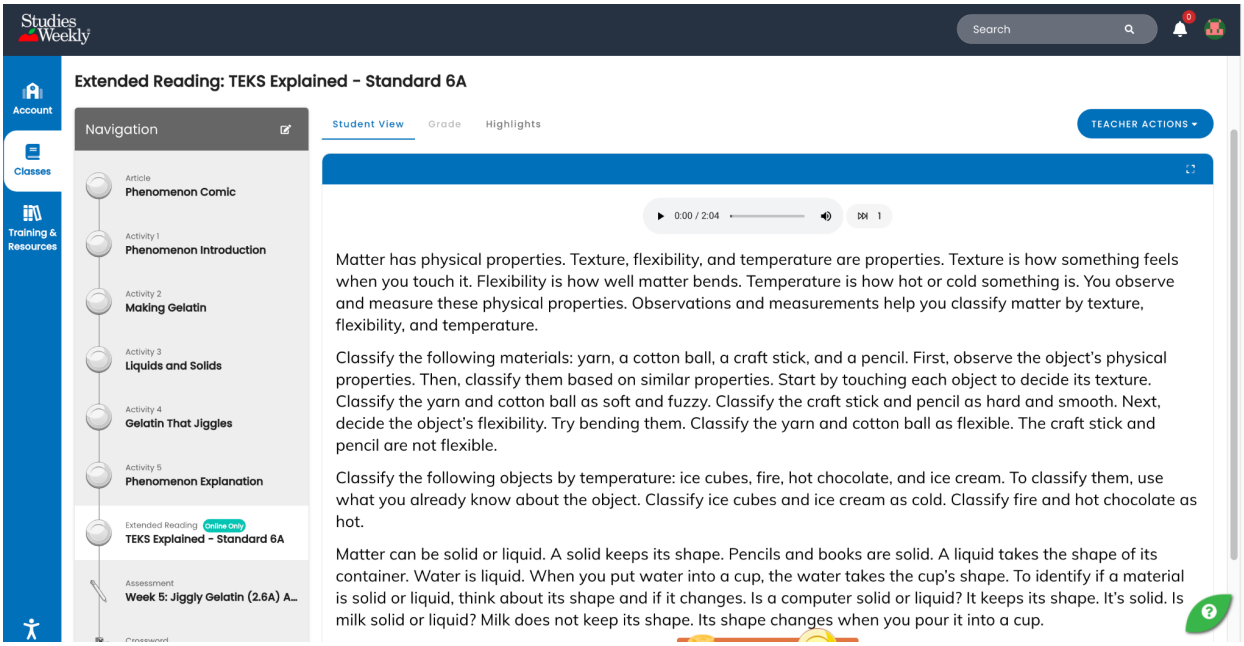
Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 6A found in Unit 2, Week 5, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1993/week/17390/articles/96278

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.
Adding an image of yarn.

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
Extended Reading: TEKS Explained: Standard 6A found in Unit 2, Week 5, Student View.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/1993/week/17390/articles/96278

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above, adding an image to the text article.

Publisher's rationale for this change if different from overall rationale.

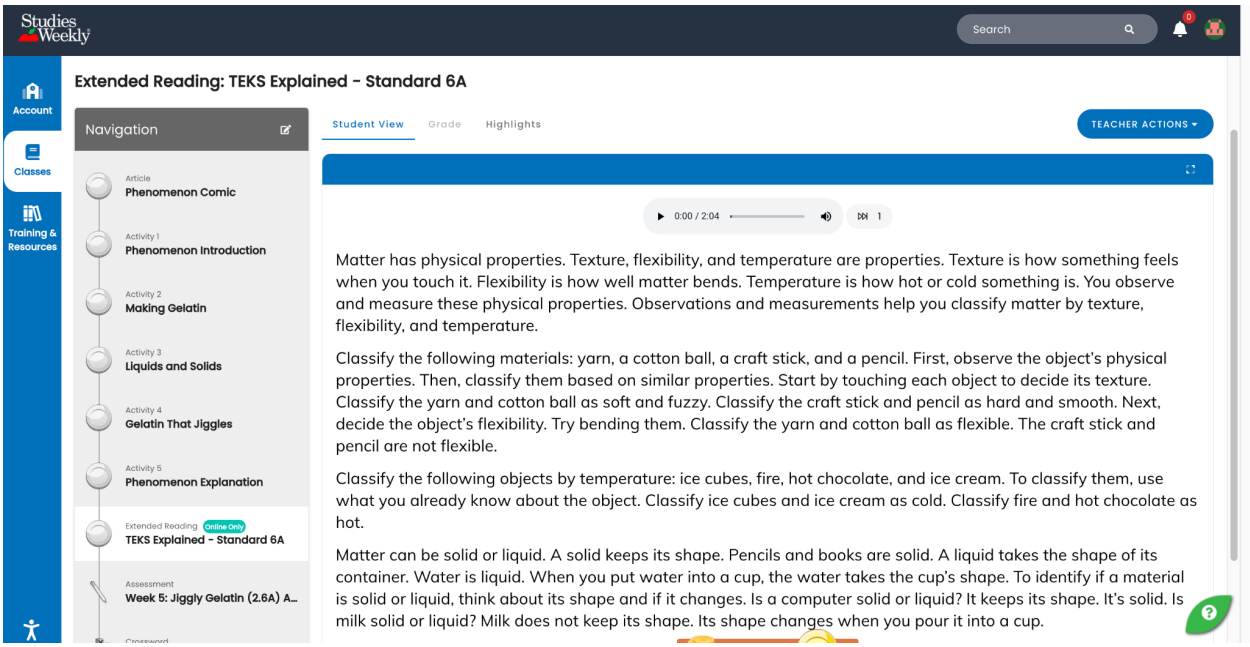
Adding image to TEKS Explained article to add interest and real-world application.

Publisher's description of this change if different from overall description.

Adding an image of yarn.

Screenshot of Currently Adopted Content

Update to Content Not Reviewed by SRP



Screenshot of Proposed Updated Content

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6, activity 2, Explore More
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2005/week/17405/articles/96376

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding an online student video to activity 2, Planning an Investigation Content Video which is necessary for the curriculum.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content
This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/SCI_EX02_UN06_PlanningAnInvestigation-Content-TX_720p.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6, activity 1, Explore More
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/units/2005/week/17405/articles/96375

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding an online student video to activity 1, Playground Problems: Phenomenon Video which is necessary for the curriculum.

Update to Content Not Reviewed by SRP

Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content

This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/SCI_EX02_UN06_PlanningAnInvestigation-Content-TX_720p.mp4

Signature: By entering your name below, you are signing this document electronically. You agree that your electronic signature is the equivalent of your manual signature.

X Clayton Chamberlain

Date Submitted: March 11, 2024

Update to Content Not Reviewed by SRP

Request to Update Content Not Reviewed and Approved by the State Review Panel

Proposed changes shall be made available for public review on Texas Education Agency's website for a minimum of seven calendar days prior to approval.

Proclamation Year: 2024
Publisher: Studies Weekly, Inc.
Subject Area/Course: Science, 2nd Grade

Adopted Program Information

Title: Texas Science Studies Weekly: 2nd Grade
ISBN: 9781649783790-MP1

Enter the identical Program Title of your identical product that will contain the identical updates.
Identical Program Title: N/A
Identical Program ISBN: N/A

Adopted Component Information

Title: Texas Science Studies Weekly: 2nd Grade Teacher Edition
ISBN: 9781649783783-TE1

Enter the identical Program Title of your identical product that will contain the identical updates.
Identical Program Title: N/A
Identical Program ISBN: N/A

Publisher's overall rationale for this update

The rationale for the updates fall into three categories, new materials to improve the curriculum, corrections to materials that are not TEKS-bearing, and the addition of missing materials referenced in the curriculum that are also not TEKS-bearing.

Publisher's overall description of the change

The items that are included in this request for update to content not reviewed by the SRP include:

1. New materials
    a. Topic Information Background Podcasts transcript PDF
    b. Summary Videos
    c. Printable materials
2. Corrections to materials
    a. Updated Teacher Editions
    b. Various activity instruction pages
3. Addition of missing materials

Access Information

Enter access information below to the adopted version of the instructional materials and the proposed new content.

Update to Content Not Reviewed by SRP

Currently Adopted Content URL: online.studiesweekly.com/login
Currently Adopted Content Username: TXSNadoption
Currently Adopted Content Password: Demo2023

Proposed Updated Content URL: Direct links to the resources are provided below.
Proposed Updated Content Username: none required
Proposed Updated Content Password: only required for assessment documents, SWteacher!

Update to Content Not Reviewed by SRP

Update comparison:

Each change in the component on this form should be documented in the update comparison below. You must submit a separate request form for **each component**, not each change. (Note: Repeat this section as often as needed by copying and pasting the entire area from the divided line above the **Description of the specific location and hyperlinking to the exact location of the currently adopted content** to the dividing line below the *Screenshot of Proposed New Content*.)

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in the Teacher Resources of each unit, except unit 1. Proposed location by unit.

2:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1993
3:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2001
4:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1994
5:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2004
6:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005
7:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1996
8:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2002
9:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1990
10:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2006
11:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1992
12:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1998
13:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1995
14:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2007
15:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1999
16:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2003
17:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-

8dc1193cd594/publications/511/teacher-resources?unit_id=1997
18:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2008
19:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2000
20:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2009

Publisher's rationale for this change if different from overall rationale.

Providing a Topic Background Information Podcast transcript will improve teacher access.

Publisher's description of this change if different from overall description.

The Topic Background Information Podcast provides teachers with background information about the science concepts covered in the unit. A PDF document of the podcast improves access.

Screenshot of Currently Adopted Content

N/A - new resource

Screenshot of Proposed Updated Content

Unit2:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Jiggly Gelatin

Welcome to the teacher background podcast for Unit 2! We will be covering what students already know about observable physical properties preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

All around us are objects we can see and touch. We are observing the objects' physical properties. There are numerous, real-world examples of physical properties, which makes this an exciting topic for students.

In first grade, students learned that objects have observable physical properties. Physical properties are used to classify objects. An object's shape, color, and texture are observable physical properties. Comparison words like "larger" or "smaller" and "heavier" or "lighter" are used to describe the physical properties of objects, as well. For instance, a basketball is an object with many observable physical properties. You can see that it's shaped like a circle and is orange in color. You can feel that a basketball's texture is bumpy. You can describe a basketball by saying it's larger than a baseball and lighter than a bowling ball.

In second grade, the standard expands in complexity. Students are introduced to the word "matter." Matter is defined as anything that takes up space and has mass. We can see and touch matter. Crayons, sand, oil, and cars are examples of matter. Take a look around. Do you see any other examples of matter? Pencils, books, computers, and people are matter, too!

In this unit, students will explore the observable physical properties of matter, including its texture, flexibility, and relative temperature. Texture is how the matter feels when you touch it. Words like "rough," "bumpy," "smooth," "soft," and "hard" describe texture. For instance, the texture of a sidewalk is rough and hard. Flexibility is how bendable matter is. When matter bends easily, it's flexible. A rubber band bends easily, so it has good flexibility. A pencil, on the other hand, does not bend easily. Therefore, a pencil does not have good flexibility. Relative temperature is how hot or cold the matter is. Ice is matter with a cool temperature, and fire is matter with a hot temperature. These physical properties are incredibly useful when classifying matter. Take another look at the matter around you. Can you notice and describe any physical properties?

Additionally, students will identify materials as solid or liquid. A solid keeps its shape, whereas a liquid takes the shape of its container. A crayon is solid because it keeps its shape, despite being dropped or placed into a container. For example, a crayon's shape stays the same whether it is placed in a backpack, a crayon box, or on a desk. Water, on the other hand, is liquid and takes the shape of its container. A cup is a container. When you pour water into a cup, the water takes the cup's shape. If you pour the water from the cup into a water bottle, it'll take the shape of the water bottle.

A common misconception among students is that solids are large, hard materials. For instance, they may assume a rubber band is not solid because it's flexible. This unit should clarify this misconception because students will study matter's flexibility. Also, students may think an object like sugar is not solid because it seems to take the shape of its container. However, there are many tiny, solid, individual pieces of sugar in a container. You can observe the individual pieces of sugar, which you cannot do with a liquid like water or milk.

Unit 3:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Engineering Design: Real or Wax?

Welcome to the teacher background podcast for Unit 3! We will be covering what students already know about changes in physical properties preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Throughout our day, we encounter many different objects and materials. Surprisingly, we are often changing them, too! Whenever you cut a piece of paper, you've changed it. Can you think of other things you may change throughout your day? For example, when you blow dry your hair, you've used heat to change its appearance. In this unit, students enjoy the connections they can make between physical changes and their lives.

In first grade, students learned that objects have observable physical properties. Physical properties are used to classify objects. An object's shape, color, and texture are observable physical properties. Comparison words like "larger" or "smaller" and "heavier" or "lighter" describe an object's physical properties, as well. Students also learned to explain and predict changes in materials when the materials were heated or cooled. For instance, freezing water will turn it into ice.

In second grade, students will learn that physical properties can change. These are called physical changes. Processes such as cutting, folding, sanding, melting, or freezing are ways to change matter's physical properties. It's important to know that even though the physical properties change, the matter isn't changing into something else. Matter is still matter. We've simply changed a physical aspect of matter, like its appearance or shape. For example, a piece of wood's texture can be bumpy. When you sand the wood, the texture changes from bumpy to smooth. Even though the wood underwent a physical change, it is still wood. Now, let's consider a piece of paper. How can you change its physical properties? You can cut it or fold it. Even though there was a physical change, the paper is still paper.

A common misconception among students is that when matter changes from solid to liquid, or vice versa, it's not a physical change. They think the entire substance has changed into a whole new substance. For instance, when water (a liquid) freezes into ice (a solid), students do not consider that a physical change. They think of water and ice as two separate substances. Really, both are water. A significant takeaway of this unit is that different processes cause physical changes to matter without changing what it is.

Unit 4:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Home "Tweet" Home

Welcome to the teacher background podcast for Unit 4! We will be covering what students already know about building systems and physical properties preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Students love studying systems, analyzing materials, and creating objects. Therefore, this topic is quick to engage students.

In first grade, students learned that whole objects are a system of parts working together. The system's parts can be taken apart and put back together again. The parts won't change. For example, a block tower is a whole object. A block tower is a system made of blocks. The blocks work together to make the tower.

In second grade, students will learn that objects can be combined or reassembled to make a new object. Let's consider building with blocks again. You can combine the building blocks to create a tower. Then, the blocks can be reassembled to create a new object: a school!

When students make a new object, they need to decide on other things, too. First, they should decide the object's purpose. Why are they making it? Will the object hold things or move things? Deciding on an object's purpose helps with determining the materials needed to make it. Wood, plastic, glass, and sand are examples of materials. Choosing the right materials with which to make an object is important because different materials have different physical properties. We choose materials based on their physical properties. For instance, if you want to make a container that will go outside, you need materials that can withstand the weather. Plastic and wood are two materials that can stand up to wind and rain.

A common misconception among students is that materials can only have one physical property. This unit emphasizes that materials can have multiple physical properties. For instance, a sanded piece of wood is both sturdy and smooth. If you want to build a ramp for a toy car to slide down, wood is a good choice for several reasons. Wood has more than one useful physical property. The wood is sturdy, which ensures your ramp won't fall over, bend, or break. The wood is also smooth, which allows the toy car to move quickly and effectively down the ramp.

Unit 5:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Push, Touch, and Collide: Watch Out!

Welcome to the teacher background podcast for Unit 5! We will be covering what students already know about pushes and pulls preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Pushes and pulls are all around us! When you push an object, you move the object away from you. When you pull an object, the object moves toward you. Can you think of ways you use pushes and pulls throughout your day? There are countless examples, which make this an engaging topic for students. Perhaps you push a button or a swing. Maybe you pull tissues out of a box or pull a door closed. While many different objects can be pushed or pulled, they all have something in common. The push or pull will affect them in some way.

In first grade, students learned that pushes and pulls affect an object's motion. They participated in investigations and worked on making predictions around this standard. Pushes and pulls can start or stop an object's motion. For instance, when you throw a basketball, you push it. Your push causes the basketball to move. Similarly, if someone passes you the basketball, you can pull it in, toward your body, with your hands. Your pull will stop the basketball's movement. Additionally, pushes and pulls can change the speed or direction of an object's motion. A hard kick, which is a push, can increase the speed of a soccer ball. What's more, the kick changes the direction of the soccer ball. First, it was coming toward the kicker, and now it's going away from the kicker.

In second grade, students will explain how objects push on one another, which results in changes. When the objects touch, or collide, they may change shape. An object's shape can change through bending, stretching, and squishing, just to name a few. Consider a ball of clay. Imagine pushing your palm into the ball of clay. The clay will squish and flatten. Your palm is one object. The ball of clay is the other object. When they collide, the ball changes its shape. The next time you push an object, see if you can identify any changes in shape!

A common misconception among students is that only one object changes shape when they collide. While this is common, it is not always the case. For instance, if you push two balls of clay into each other, both will flatten.

Unit 6:

TEXAS SCIENCE **Teacher Background Information Podcast**

Second Grade: Playground Problems

Welcome to the teacher background podcast for Unit 6! We will be covering what students already know about pushes and pulls affecting an object's motion preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Pushes and pulls are everywhere. We push the brakes on a car, and we push doors open. We pull weeds out of the garden or pull curtains closed. There are many real-world scenarios of pushes and pulls for students to identify. Those connections make this an exciting topic for learners.

In first grade, students learned that pushes and pulls affect an object's motion. They participated in investigations and worked on making predictions around this standard. Pushes and pulls can start or stop an object's motion. For instance, when you throw a basketball, you push it. Your push causes the basketball to move. Similarly, if someone passes you the basketball, you can pull it in, toward your body, with your hands. Your pull will stop the basketball's movement. Additionally, pushes and pulls can change the speed or direction of an object's motion. A hard kick, which is a push, can increase the speed of a soccer ball. What's more, the kick changes the direction of the soccer ball. First, it was coming toward the kicker, and now it's going away from the kicker.

In second grade, students will learn that pushes and pulls can vary in strength. Pushes and pulls can be strong or weak. Students investigate how the strength of a push or pull changes the object's motion. When the push or pull has greater strength, the object moves faster. For instance, if you push a grocery cart with all your strength, the cart speeds up! Now, what do you think a weaker push will do to an object? You've guessed it! The object still moves, but it moves more slowly. Let's imagine pushing a grocery cart again, but this time your push is weaker. Now the cart's motion slows. The same concept applies to pulls. If you pull a door closed with great strength, the door slams shut. That's why we often use a weaker pull to close doors. We want them to close softly.

A common misconception among students is that the strength of a push or pull is always great. When students hear the word "strength," they assume it's big and powerful. However, strengths can vary. A weaker push or pull is still a strength.

Unit 7:

TEXAS SCIENCE Teacher Background Information Podcast

Second Grade: Surprising Sounds

Welcome to the teacher background podcast for Unit 7! We will be covering what students already know about energy preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

All around us are clues that energy is present. You can see, feel, and hear signs of energy. You can feel the heat used to cook your food. You can hear a police siren. Heat and sound are types of energy. Energy is defined as the ability to do work or cause change. Energy is how things change or move. This unit expands student knowledge of energy.

In first grade, students learned how heat is used in everyday life. Heat is used to cook food or when using a clothes dryer. Heat causes changes. Sometimes the changes are reversible, whereas other times, the changes are not reversible. Heat melts butter into a liquid, but this is a reversible change. When the butter cools down, it will become solid again. Heat cooks eggs, but this change is not able to be reversed. Once an egg is cooked, it cannot go back to how it was prior to being heated.

In second grade, students will learn that sound begins with vibrating matter. Matter is anything that takes up space and has mass. The sound vibrations move through the air, traveling out from the source to another object. Many things make sound vibrations. If you stop and listen, you'll notice many different sounds around you! You might hear the air conditioning unit, people talking, birds chirping, or telephones ringing. These objects are causing vibrations. The vibrations are moving through the air to our eardrums. The vibrations become the sound we hear. If a sound is loud enough, you can feel and see the vibrations. If you turn the music up loud on a speaker, you can feel the vibrations with your hand.

Students will also explore different levels of sound and how we use sounds daily. Sounds vary: they can be loud or soft and low or high. A loud sound is easily heard because it produces a lot of noise. A soft sound, on the other hand, is quiet. A low sound is deep, and a high sound is shrill. A fire alarm is a loud sound. Its level of sound is necessary to alert people of an emergency. A whisper is a soft sound, which we use when trying to keep our voices quiet. Sounds like the horn of a boat or the notes from a tuba are low. Whistles, birds chirping, and shoes squeaking are high sounds.

A common misconception among students is that sound is inside of an object. You need to do something to the object to make the sound "come out." However, the sounds we hear are not from the inside of objects. We aren't releasing a sound. A takeaway from this unit is that a vibrating object causes vibrations to travel through the air. The vibrations travel to our eardrums, becoming the sounds we hear.

Unit 8:

Second Grade: Engineering Design: Mrs. Garcia's Recess Dilemma

Welcome to the teacher background podcast for Unit 8! We will be covering what students already know about energy preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

All around us are clues that energy is present. You can see, feel, and hear signs of energy. You can feel the heat used to warm your home. You can hear the engine of a motorcycle. Heat and sound are types of energy. Energy is the ability to do work or cause change. Energy is how things change or move. This unit expands student knowledge of energy.

In first grade, students learned how heat is used in everyday life. Heat is used to cook food or when using a clothes dryer. Heat causes changes. Sometimes the changes are reversible, whereas other times, the changes are not reversible. Heat melts butter to a liquid, but this is a reversible change. When the butter cools down, it will become solid again. Heat cooks eggs, but this change is not able to be reversed. Once an egg is cooked, it cannot go back to how it was prior to being heated.

In second grade, prior to this standard, students learned that sound is produced by vibrating matter. Sound vibrations move through the air, traveling from the source to another object. Many things cause vibrations. If a sound is loud enough, you can feel and see the vibrations. Students also learned there are different levels of sound used in everyday life. For instance, a fire alarm is a loud sound used to alert people of an emergency. On the other hand, a whisper is a soft sound used when trying not to disturb others.

Sound is crucial in our everyday lives. People need to be able to talk and communicate from a distance. For example, a phone helps people communicate when they are not in the same home, town, state, or even country! Microphones and loudspeakers are other tools that help people communicate over a distance. These devices amplify sound, or make it louder, so it can be heard from farther away. In this unit, students will design and build a device that uses sound to solve the problem of communicating over a distance. Students use different tools and materials to build their devices. The devices students build will help make a sound louder or help it be heard from farther away.

A common misconception among students is that only telephones help us communicate over a distance. While this is usually the first tool that comes to mind, it is not the only tool. Not only do microphones and loudspeakers allow people to communicate over a distance, but other devices do, too. Students will learn this as they design their own devices to communicate. They will see that something as simple as a cup is a tool to amplify sound!

Unit 9:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Day and Night Difference

Welcome to the teacher background podcast for Unit 9! We will be covering what students already know about Earth and space preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Earth and space is an exciting topic for learners. Students love learning about Earth, the sun, and the moon. Students enjoy discovering the connections among these three objects and how they impact our daily lives.

In kindergarten, students observed, described, and illustrated the sun, moon, stars, and other objects in the sky, such as clouds. The sun is very bright. It is so bright, in fact, that we cannot look directly at it. The sun is round and moves throughout Earth's sky during the day. Clouds vary in appearance. Clouds can appear white and puffy. Other times, clouds can appear thin and wispy. Sometimes, clouds appear to be dark gray. The moon is the bright object in the sky that people most often see at night. From Earth, the moon looks round, but its appearance can change. Stars are other objects we are able to see at night. There are many stars in the sky. From Earth, stars appear white and round. They seem to twinkle in the sky!

Prior to this unit, second grade students learned how the sun impacts Earth. The sun, which is a star, provides Earth with light and heat. The sun's light and heat are crucial to the plants and animals living on Earth. Plants need sunlight to grow. Animals need sunlight to see and heat to keep warm.

In this unit, students will explain the sun's interaction with the moon. When you picture the moon, what do you imagine? Usually, people imagine a large, glowing object in the night sky. However, the moon itself is not actually glowing. The moon does not make its own light. Instead, the moon reflects light from the sun. When the sun's light shines on the moon's surface, the surface reflects the light. The light bouncing back gives the moon its glowing appearance. That means that when we look up at the moon, we are really seeing its reflection of the sun's light!

Also in this unit, students will observe objects in the sky using tools, such as a telescope. A telescope helps people study objects that are far away. People often study the moon, stars, and planets with a telescope. Telescopes can be used during the daytime, but they are not as effective. With a telescope, distant objects are seen more clearly and in greater detail. With a tool like a telescope, objects in the sky appear different than they do with an unaided eye. For instance, without a telescope, the moon might look like a flat, glowing object. You may see some darker lines, or variations of color. However, with a telescope, you see many more details of the moon. You'll see craters and mountains.

A common misconception among students is that the moon produces its own light. Students think the moon is glowing because it appears to be lit up. This unit will clarify this misconception, as a significant takeaway is that the moon reflects the sun's light.

Another common misconception among students is that the moon is only visible at night. However, the moon can be seen during the daytime, too. While the moon isn't always visible during the day, it can be seen if it's in the right position at a particular time of day.

Unit 10:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Where Did My Sandcastle Go?

Welcome to the teacher background podcast for Unit 10! We will be covering what students already know about the movement of Earth materials preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

When you hear the word "soil," what comes to mind? Usually, we picture the soil used in gardens to grow plants. While that's a great example of soil, soil is so much more than that! Soil provides a home for living organisms. It's filled with nutrients, and it holds water. What's more, soil exists all over Earth's surface, not just in gardens. In this unit, students will be excited to explore how soil is able to move across Earth's surface.

In first grade, students learned about different types of soil and their properties. Properties of soil include particle size, shape, texture, and color. Soil is composed of rock particles, water, air, and organic matter, or dead plants and animals. Topsoil, sand, and clay are three types of soil. Topsoil holds many nutrients and water, which makes it great for growing plants. It is often dark brown, smooth, and fluffy. Sand has the largest particles, so it does not hold water or nutrients very well. Its texture is gritty and rough, and its color is usually light brown. Clay has the smallest particles. It holds a lot of nutrients and water. Clay is sticky and thick, and its color is often orange and red. Also, in first grade, students learned that water moves rock and soil particles. As water flows, it carries the particles from one location to another.

In second grade, students will learn how wind and water move soil and rock particles across Earth's surface. When wind blows, its gusts pick up dry soil particles and rock particles. The wind's gusts transport, or carry, the particles across Earth's surface. When the wind settles, the particles drop to the ground again. Similarly, water moves soil and rock particles. Rain, streams, and oceans are examples of water on Earth. As water flows over Earth's surface, it carries the particles with it. For example, a river will pick up particles in its currents. As the water in a river continues on its path, the particles move along with it. Sometimes, when wind and water move particles, they change Earth's surface. They create new landforms! For instance, wind can blow sand to form sand dunes on a beach.

A common misconception among students is that water makes soil disappear. Students aren't aware that water is moving the soil from one place to another. They think the water breaks the soil down. A takeaway from this unit is that water does, in fact, move the soil pieces. Reminding students that soil contains pieces of rock will help them understand that soil cannot entirely disappear. Rocks are a concrete concept to them, and this helps them visualize soil's movement.

Unit 11:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Wacky Weather

Welcome to the teacher background podcast for Unit 11! We will be covering what students already know about weather preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Weather is an engaging topic for students. People discuss the weather every day — even kids! Much of our lives revolve around the weather. On the playground, you'll hear students discuss if it's too hot or too cold. This is a real-world example of children identifying the weather and studying it.

In first grade, students learned about the characteristics of weather. The weather is what the air and sky are like outside at a given time. The weather changes daily, and sometimes it even changes hourly. Students described and recorded if the weather was hot or cold, clear or cloudy, calm or windy, and rainy or icy. Also, students explained the impact the weather had on their everyday choices.

In second grade, students will measure, record, and graph weather information. In this unit, they will study temperature and precipitation. Temperature is how hot or cold it is outside. The temperature is measured with a thermometer and recorded in degrees on the Fahrenheit or Celsius scale. Precipitation is water that forms in clouds in the atmosphere and then falls to Earth's surface. Precipitation includes rain, snow, sleet, and hail. Graphing weather is an important skill because students begin to recognize weather patterns.

Also in this unit students will investigate different types of severe weather. Severe weather consists of weather that is extremely serious and causes intense damage to areas. Types of severe weather include hurricanes, tornadoes, and floods. Students will learn that some areas are prone to specific types of severe weather.

Hurricanes form out over the ocean, but they can move toward land. Warm ocean water gives hurricanes the energy they need to form. When they form, their high, violent winds spin in a circular motion. In addition to high winds, hurricanes cause heavy rain, storms, and floods. They can cause a storm surge, which means the ocean rises dangerously high and falls again. The Caribbean Sea and the Gulf of Mexico are likely to experience this type of severe weather.

Tornadoes are violent, rotating columns of wind that form over land. Their energy comes from large, severe thunderstorms. Tornadoes extend from the thunderstorm's bottom and stretch to the ground. Their violent winds can reach 300 miles per hour and rotate extremely fast. This gives a tornado its funnel shape. Tornadoes occur in many places, but they are most likely to form in an area of the United States called Tornado Alley. Tornado Alley is in the Great Plains, which is prone to severe thunderstorms. These severe thunderstorms spawn tornadoes.

Floods occur when an immense amount of water overflows onto dry land. Floods are often a result of heavy rain for a long period of time. The heavy rain causes the ground to fill with water. The rain water then flows into nearby bodies of water, such as streams and rivers. If the water level rises too much, the body of water overflows and creates a flood. While floods can occur anywhere, they're most likely to occur in areas close to large bodies of water. Coastal areas, or areas near large rivers, are particularly prone to flooding.

A common misconception among students is that severe weather events are always separate events. However, sometimes severe weather events are connected. For example, a severe thunderstorm can cause a tornado. Hurricanes can also cause tornadoes to form. Hurricanes can lead to flooding. Flooding can lead to landslides. There are many connections between severe weather events!

Unit 12:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Shopping at the Superstore

Welcome to the teacher background podcast for Unit 12! We will be covering what students already know about using natural resources preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

All around us are types of resources. People need resources to survive. A resource is anything we use. Think about the items you use every day. What are they? Maybe you use water, food, cars, phones, and clothes! These are all types of resources. As you can see, resources are crucial in our lives.

In first grade, students learned how plants, animals, and humans use rocks, soil, and water. Rocks, soil, and water are natural resources, and they are necessary for living things to survive. Rocks have nutrients inside of them that are essential for plants to grow. Rocks provide shelter to animals, sometimes as homes and sometimes as a means of hiding from predators. Surprisingly, humans use rocks every day, too! Rocks are in many of the items we use. For instance, salt, clay, and glass all come from rocks. Soil is another natural resource living things depend on. Soil contains the nutrients, water, and air that plants need for survival. Some animals use soil for shelter. Also, soil provides animals with a major food source: plants! Humans use soil to grow their food and as the foundation upon which to build buildings. Lastly, water is a natural resource all living things rely on to drink. Some plants and animals live in water. People use water to cook, clean, travel, and more.

In second grade, students will distinguish between natural and human-made resources. Natural resources come from nature and are used by living things. Water, wood, plants, and animals are all natural resources. They're found all over Earth and are relied upon for survival.

Wood is a natural resource that comes from trees. Wood is used to create shelters, or it can serve as the actual shelter itself. For example, humans turn wood into homes, whereas squirrels live directly inside tree trunks. Also, burning wood provides heat and warmth to organisms, like people, that need it. Plants and animals are another natural resource that are found all over Earth. They're a major food source for living organisms. Animals eat plants, as well as other animals. Humans rely on plants and animals for food, which gives humans their energy. It's important to remember that people are not the only living organisms that require natural resources to survive. For instance, people need water to drink, but so do other plant and animal species.

Human-made resources are resources made by people. Human-made resources are crucial in our lives, too. People use human-made resources every day. Plastic, rubber, metal, and paper are examples of human made resources. These resources are used in buildings, vehicles, and machines. Human-made resources often make life easier for people, such as using tools to help cook and clean.

A common misconception among students is that paper is a natural resource. Students know that paper comes from trees. However, even though paper is made of wood, which is a natural resource, people use a process to manufacture paper. This process classifies paper as a human-made resource.

Unit 13:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Treasured Trash

Welcome to the teacher background podcast for Unit 13! We will be covering what students already know about conservation preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

In first grade, students learned why water conservation is important. Surprisingly, fresh, clean water is a limited resource. If not used responsibly, fresh water can temporarily run out. It's crucial we conserve water because humans, plants, and animals need it for survival. First-grade students described ways to conserve water. Using less water is a great way to conserve it. For instance, you can turn off the faucet while brushing your teeth. Another way to conserve water is to protect it in nature. This means humans work hard to keep it clean rather than polluting it. Unfortunately, trash often ends up in water. If enough trash pollutes a body of water, it can render the water unusable. Every person can do their part to conserve water by properly disposing of their trash.

In second grade, students will describe how humans can limit their impact on resources by choosing to conserve and properly dispose of materials.

Humans use materials every day. Materials make up the variety of items we use. Materials are either natural or human-made. For example, wood is a material that comes from nature, and it is used to make houses. Plastic, on the other hand, is a human-made material used to make items like water bottles.

When people use materials, they impact Earth. Therefore, it's essential people make choices that protect Earth. Conservation of materials is a great way to reduce environmental impact. To conserve a material is to use it carefully. Properly disposing of materials is key to protecting Earth as well. Reducing, reusing, and recycling are ways to properly dispose of materials like paper, plastic, and metal.

Reducing your use of a material means you're using the material less. Plastic is a great material to try to use less. What is a way you can reduce your use of plastic? You can use cloth bags to carry your groceries instead of disposable plastic bags. This reduces the amount of plastic bags used, which in turn, reduces your overall use of plastic.

Reusing a material means to use the material more than one time. A common item people reuse is a water bottle. When you refill a reusable water bottle each day, you're cutting down your use of individual, disposable water bottles. These individual, disposable water bottles are often thrown away after each use. They can end up in landfills or polluting Earth. A reusable water bottle helps you throw away less plastic.

Every day, people recycle materials. Recycling turns used materials into new materials. Commonly recycled materials are paper, plastic, and metal. When these materials are recycled, they undergo processes to become new items. For instance, many items use metal, such as cars and appliances. If we do not properly dispose of metal, it slowly rusts and breaks apart on land, which increases pollution. When we recycle metal, it's reused in new cars and appliances.

A common misconception among students is that recycling is the best way to conserve materials. Students think this because they hear recycling messages frequently and usually more often than encouragement to reduce or reuse materials. However, reducing and reusing resources is, surprisingly, more effective for conservation. Recycling, while crucial in protecting Earth, requires additional energy and resources to create new items. On the other hand, reducing your use of a material and reusing it requires no additional energy to make new items.

Unit 14:

TEXAS SCIENCE **Teacher Background Information Podcast**

Second Grade: Exploring Ecosystems

Welcome to the teacher background podcast for Unit 14! We will be covering what students already know about organisms and environments preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

In first grade, students learned about living and nonliving things. Living things, like plants and animals, have needs. They need food and water, which are nutrients, to get their energy. They need air to breathe. Living things need shelter and space. What's more, living things also produce their own young. Animals give birth to babies or lay eggs, and plants make seeds. Nonliving things, on the other hand, do not have needs. They are not alive, so they do not produce their own young. Therefore, rocks, air, sunlight, and water are categorized as nonliving things. First-grade students learned how living things and nonliving things interact. Living things are dependent on nonliving things. For instance, plants need air, sunlight, and water to grow. Animals need air to breathe and water to drink. Environments are made of nonliving things, like water and rocks.

In second grade, students will describe how the physical characteristics of environments support the plants and animals within an ecosystem. An environment's soil type, amount of rainfall, temperature, and amount of light are physical characteristics. Animals depend upon these characteristics for survival.

The type of soil in an environment can vary. Some soil is very sandy, like in a desert or coastal area. In other places, there is loam soil or clay soil. Whatever type of soil is in that environment supports the plants and animals living there. For instance, sandy soil is crucial for supporting the growth of cacti and other desert-dwelling plants.

The amount of rainfall is another important physical characteristic. Different plants require different amounts of rain to grow. Certain animals eat certain plants, meaning the types of plants in an area affect the animal species in the area. For example, cacti need very little rain, so deserts are ideal for them to grow. Cacti are able to collect water in their stems. Animals in the desert have ways to save water, too. For instance, kangaroo rats get water from the seeds they eat, and desert foxes get water from the prey they eat.

An environment's temperature and amount of light support its plants and animals, as well. A cactus needs a high temperature in order to survive. It also needs direct sunlight to effectively grow.

A common misconception among students is that animals can live anywhere. One reason for this misconception is that children see animals at zoos. For example, they may see an elephant in a zoo and then believe elephants can survive in any environment. This unit should clarify this misconception because students study how physical characteristics can differ and are crucial to the plants and animals living in an area.

Unit 15:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Wild Berries and Javelinas

Welcome to the teacher background podcast for Unit 15! We will be covering what students already know about food chains preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Students love learning about food chains! Food chains are all around us, which helps students make many real-world connections.

In first grade, students learned about basic food chains. They identified and illustrated how living organisms depend on one another. A food chain starts with the sun and shows how plants and animals get their food. Plants use the sun to grow. Some animals eat the plants, and then some animals eat other animals. Food chains exist all over Earth, both in water and on land. This is an example of a food chain on land: the sun, grass, a mouse, and a snake. Grass is a plant, so it uses the sun to grow. Next, the mouse eats the grass. Finally, the snake eats the mouse.

In second grade, the standard increases in complexity. Students will be expected to describe food chains, identifying producers and consumers. These terms will help students explain how living things depend on one another.

A producer is a living organism that produces its own food. Plants are producers because they can make their own food using sunlight, water, and air. Animals, on the other hand, depend on other living things for food. Animals need to consume plants or other animals, giving them the name consumers. Some animals consume only plants, some animals consume both plants and other animals, and some animals consume only other animals.

Let's take a look at a food chain in a water environment: the sun, duckweed, koi, and heron. Duckweed are producers because they can produce their own food. Koi are fish. Fish are consumers. They depend on duckweed as their food source. Herons are birds. They are also consumers. Herons are dependent on koi for their food.

A common misconception among students is that the last consumer in the food chain eats everything below it. Food chains are linked with arrows and are linear. Therefore, it looks like everything is eaten by the top consumer.

Unit 16:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Engineering Design: Dandelion Surprise

Welcome to the teacher background podcast for Unit 16! We will be covering what students already know about the dependence between living and nonliving things preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

All around us are living and nonliving things. Take a look outside. Not only will you see living and nonliving things, but you'll also see them interacting. The things outside depend on one another. The numerous, real-world examples make this topic exciting for students. They enjoy learning about the relationships of dependence between the things they see outside.

In first grade, students learned about living and nonliving things. Living things, like plants and animals, have needs. They need food and water, which are nutrients, to get their energy. They need air to breathe. Living things need shelter and space. What's more, living things also produce their own young. Animals give birth to babies or lay eggs, and plants make seeds. Nonliving things, on the other hand, do not have needs. They are not alive, so they do not produce their own young. Therefore, rocks, air, sunlight, and water are categorized as nonliving things. First-grade students learned how living things and nonliving things interact. Living things are dependent on nonliving things. For instance, plants need air, sunlight, and water to grow. Animals need air to breathe and water to drink. Environments are made of nonliving things, like water and rocks.

In second grade, students will learn how some plants depend on other living things, wind, or water for pollination or to move their seeds around. They aid plants with reproduction.

Living things, like birds, bees, and butterflies, are called pollinators because they move pollen from one plant to another. Pollinators land on plants' flowers. As they move around the flower, pollen sticks to them. When the pollinator moves to another flower, the pollen transfers too. Living things also spread plants' seeds. Many animals eat seeds or the fruits containing seeds. Animals carry the fruits and seeds away from the plant. As the animals move, they drop the seeds in a new location.

The wind is another way that pollen and seeds transfer. The wind picks pollen up in its gusts and transfers it to another plant. Sometimes seeds are very lightweight and are easily swept up by the wind. The wind carries these seeds to a new area. A dandelion is a common example of how certain seeds travel easily in the wind! Occasionally, strong winds can knock fruits and seeds loose from a plant, which causes them to move to a new location.

Lastly, water transfers pollen and seeds. Some flowering plants live in water. When water knocks pollen loose from the plants, the pollen floats on the water's surface. As the water flows, it carries the pollen in its currents. Eventually, the pollen may come in contact with another flower and transfer. Water transfers seeds in a similar manner. The seeds float away from the plant as they are carried away by the water. When they reach a new site, they will germinate and start the process of becoming a new plant.

The next time you go outside, stop and look around. Try and spot the clues of living things, wind, and water helping out plants!

A common misconception among students is that only bees pollinate plants. However, bees are just one of the most common examples of pollinators. A significant takeaway from this unit is that plants rely on many things to reproduce.

Unit 17:

TEXAS SCIENCE **Teacher Background Information Podcast**

Second Grade: Plant Parade

Welcome to the teacher background podcast for Unit 17! We will be covering what students already know about structures preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Plants and animals are incredibly unique! Students enjoy identifying the vastly different features of organisms. Let's think about some features. A unique feature of a flamingo is its long legs. Thorns are a unique feature of a rose. A unique feature of a porcupine is its quills. Every organism has features that make it unique. In science, features are called structures. Each structure has an important role in the animals' survival.

In first grade, students learned how structures help animals live, move, and meet their basic survival needs. Structures help animals hear, smell, see, eat, and drink. Consider the structures of an owl. Wings are a structure that allows the owl to fly. Eyes are a structure that help the owl see at nighttime. Different animals have different structures. For instance, while an owl needs wings to move, a dolphin needs fins and flippers, and a dog needs legs and paws.

In second grade, students will learn how the structures of a plant help them meet their basic needs for survival. A plant's structures include its roots, stems, leaves, flowers, fruits, and seeds. A plant's roots gather water from the soil, which is necessary for growth. What's more, the roots help stabilize the plant. Stems are another plant structure. A plant's stem moves water and nutrients to the rest of the plant. A stem holds up the plant and keeps it stable. Leaves are a structure that's crucial for plants to get their energy. A plant's leaves collect sunlight and air. The leaves are where plants make their own food.

Flowers, fruits, and seeds all aid with a plant's reproduction. Flowers have pollen inside of them, which is vital for reproduction. Plants need to transfer and receive pollen from other plants in order to make new plants. This is called pollination. A plant's fruit is another structure that assists with reproduction. The fruit has two essential roles. First, the fruit protects a plant's seeds, which are another important structure. Then, the fruit ripens and animals eat it. When animals consume the fruit, they carry the fruit and seeds away from the parent plant. This moves the seeds to new locations. The seeds can settle and become new plants.

A common misconception among students is that a plant's roots take in soil and that the soil becomes food for the plant. This is not the case. Roots are a structure that take in water and nutrients, but the leaves are the main structure that creates food from air, water, and sunlight.

Unit 18:

TEXAS SCIENCE

Teacher Background Information Podcast

Second Grade: Animals in Big Bend

Welcome to the teacher background podcast for Unit 18! We will be covering what students already know about structures before starting on this unit. You'll also learn how this unit builds on students' prior knowledge.

Animals are incredibly unique! Students enjoy identifying the vastly different features of animals. Let's think about some features. A unique feature of a flamingo is its long legs. A unique feature of a porcupine is its quills. Every organism has features that make it unique. In science, features are called structures. Each structure has an important role in an animal's survival.

In first grade, students learned how structures help animals live, move, and meet their basic survival needs. Structures help animals hear, smell, see, eat, and drink. Consider the structures of an owl. Wings are a structure that allows the owl to fly. Eyes are a structure that help the owl see at nighttime. Different animals have different structures. For instance, while an owl needs wings to move, a dolphin needs fins and flippers, and a dog needs legs and paws.

In second grade, students will study the structures and behaviors of animals. They will investigate how structures and behaviors help animals find and take in food, water, and air.

Eyes are a crucial structure for survival. Many animals have eyes that help them locate food or water. For instance, foxes have great eyesight. Foxes use their eyes to find animals to eat. There's another common structure used for finding food. Do you have any guesses? Coyotes have this excellent hearing structure: their ears! Coyotes' ears enable them to listen for their food. Most animals have noses, which is a structure that helps them take in air. Mouths are a common structure to help animals eat and drink.

It's important to know that structures can do more than one thing. For instance, a scorpion has pincers. The pincers help the scorpion grab its prey and then eat it. Scorpions also use their pincers to make burrows. They find air in spaces in between the dirt so that they're able to breathe and rest in their burrows. A scorpion's pincers are crucial to its survival.

An animal's behavior is how it acts. Behaviors are important for survival, too. Behaviors help animals find water and food. Breathing is a common behavior among animals. Behaviors also help animals hunt their prey, collect food, and protect themselves from predators. Many animals learn to work together, which is an important behavior for their survival. Even though animals need the same thing, like water, they have different behaviors to find it. For example, when black bears are cubs, they learn the location of water sources. As they grow, they're able to remember the locations. Black bears do not stray too far from these known water sources, so they'll always have water to drink and fish to eat. Coyotes are another example of an animal with a unique behavior to find water. When water isn't nearby, coyotes have learned to dig with their clawed feet until they reach water underground.

A common misconception among students is that every animal has the same structure for the same reason. For example, students think all animals have noses to smell food. However, this is not the case. The structures can vary, which is a big takeaway from this unit. For instance, a dolphin does not have a nose to smell. A dolphin has a blowhole to breathe and has no sense of smell. Snakes, on the other hand, use their nostrils to sniff but do most of their smelling with their tongues!

Unit 19:

TEXAS SCIENCE **Teacher Background Information Podcast**

Second Grade: Ant Farm

Welcome to the teacher background podcast for Unit 19! We will be covering what students already know about organisms and environments preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

Students tend to enjoy learning about animals. They especially love investigating how different animals survive.

In first grade, students learned how structures help animals live, move, and meet their basic survival needs. Structures help animals hear, smell, see, eat, and drink. Let's take a look at an owl. Wings are a structure that allows owls to fly. Eyes are a structure that help owls see at nighttime. Different animals have different structures. For instance, while an owl needs wings to move, a dolphin needs fins and flippers, and a dog needs legs and paws.

Prior to this unit, students learned that an animal's behavior is how the animal acts. Behaviors are essential for an animal's survival. For instance, a woodpecker has an interesting behavior: it pecks at trees! This behavior helps the woodpecker find insects inside the wood. The insects are the woodpecker's food source.

In this second-grade unit, students will record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes.

Being a part of a group is a great way for an animal to find food. Sometimes groups of predators hunt together to catch prey, and sometimes groups of animals work together to collect food. Lions are a great example of a predatory animal that obtains food as a group. As a pride, lions locate and hunt their prey. This unique behavior increases the lions' chances that they'll catch their food. Dolphins, wolves, and bees are other examples of organisms that locate and get their food as a group.

Staying in groups is crucial for the survival of some species. Several species of animals stay in groups to defend themselves. For example, the more animals there are in a group, the more eyes there are to look out for danger. Bison are an example of a species that works together. A herd of bison stays together to defend itself from predators. As a group, bison are better able to attack predators. What's more, the weaker bison and calves stick to the center of the herd. This ensures they are protected by the stronger bison on the outside.

Some animals cope with changes as a group. For example, groups of geese fly south for the winter. They are coping with the change in weather by traveling somewhere warmer together. Elephants are another example of a group that copes with changes. Elephants move as a herd to find food and water when there is a drought.

A common misconception among students is that all predatory animals are solitary. They live, hunt, and act alone. Students often assume this because they consider predators dangerous to other animals. For instance, they may think lions fight with one another because they consider lions to be violent. However, a takeaway from this unit is that sometimes predatory animals need one another to survive!

Unit 20:

Second Grade: Frog and Butterfly Life Cycles

Welcome to the teacher background podcast for Unit 20! We will be covering what students already know about life cycles preparatory to this unit. You'll also learn how this unit builds on students' prior knowledge.

All living organisms have a life cycle. That means life cycles are all around us! Students love studying the changes in the organisms they see every day.

In first grade, students learned about basic life cycles. They learned that life cycles have stages that show an animal's growth. Life cycles never end; they repeat with the reproduction of new animals! Students studied the life cycles of a bird, a mammal, and a fish. Despite these being different animals, their life cycles have things in common. Bird and fish life cycles begin with an egg, while a mammal life cycle begins with a live birth. Then, all the cycles show the animal growing into adults. The life cycles start over when the adults reproduce. Students also learned that some young animals resemble their parents. For example, a baby giraffe looks very similar to an adult giraffe. It simply looks like a smaller version of the same animal!

In second grade, the standard increases in complexity. Students will investigate unique life cycles in which young animals do not resemble their parents. For instance, a caterpillar does not look like a butterfly, and a tadpole does not look like a frog. In some cases, the animal looks different in each stage of its life cycle.

Let's take a look at a frog's life cycle. A frog's life cycle includes the following stages: egg, tadpole, froglet, and frog. In this life cycle, each stage has a unique appearance. To start, frog eggs are jelly-like in appearance. The egg looks nothing like an adult frog. Tadpoles hatch from the eggs. Unlike frogs, tadpoles have long tails and gills. Tadpoles grow into froglets, which are young frogs. In this stage, froglets grow legs, and their tails shorten. Froglets finally begin to resemble adult frogs. At some point, they grow lungs to be ready to live on land. Finally, froglets grow into adult frogs with fully formed legs and no tails.

In addition to frogs and butterflies, there are several animals with unique life cycles. Many young amphibians and insects do not resemble their parents.

A common misconception among students is that for young animals to resemble their parents, they need to look like exact replicas of one another. For example, students may think that kittens do not resemble their parents because there can be variations in the color of kittens' fur. However, kittens still resemble adult cats, despite any differences in fur. This unit should clarify this misconception. A significant takeaway is that some animals look drastically different than their parents. These are the animals that we classify as ones that do not resemble adults.

Description of the specific location and hyperlink to the exact location of the currently adopted content.

Update to Content Not Reviewed by SRP

N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.

This resource will be found online in the Teacher Resources of each unit. The exception is unit one in which there are four separate weeks, each containing their own resource. Proposed location by unit.

1,week1:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1991&week_id=17384
1,week2:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1991&week_id=17385
1,week3:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1991&week_id=17386
1,week4:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1991&week_id=17387
2:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1993
3:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2001
4:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1994
5:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2004
6:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005
7:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1996
8:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2002
9:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1990
10:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2006
11:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1992
12:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1998
13:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1995
14:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2007
15:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1999
16:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2003
17:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1997
18:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-

8dc1193cd594/publications/511/teacher-resources?unit_id=2008
19:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2000
20:https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2009

Publisher's rationale for this change if different from overall rationale.

To provide an additional resource to support student learning. It is helpful for students to see a summary of what they have learned at the conclusion of the unit.

Publisher's description of this change if different from overall description.

We would like to add a Summary Video to every unit of instruction providing students with a summary of the science concepts learned in the unit. This is a student facing resource but under teacher control. The intent is for the teacher to assign this resource to students when they have concluded the activities of the unit. The purpose of this video is to help students see how all of the science concepts of the unit relate to the TEK, scientific and engineering practices and recurring themes and concepts. The objective is to reinforce student learning and strengthen the long-term durability of what they've learned.

Screenshot of Currently Adopted Content

N/A - new resource

Screenshot of Proposed Updated Content

This is a video so the content is the media provided.
1,week1:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-1_Summary_YouCanBeAScientistYouCanBeAnEngineer_230105_720.mp4
1,week2:https://cdn.studiesweekly.com/online/resources/pod_media/TX-00-SN_Unit-1_Summary_RecurringThemesAndConcepts_24-01-13_720.mp4
1,week3:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-1_Summary_WhatDoScientistsDo_ENG_360.mp4
1,week4:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-1_Summary_WhatDoEngineersDo_ENG_360.mp4
2:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-2_Summary_JigglyGelatin_ENG_360.mp4
3:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-3_Summary_RealOrWax%20-%20JS-23-12-23_360.mp4
4:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit_4_HomeTweetHome-Summary_360p.mp4
5:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-5_Summary_PushTouchAndCollide_ENG_720.mp4
6:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-6_Summary_PlaygroundProblems_ENG_360.mp4
7:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-7_Summary_SurprisingSounds_ENG_720.mp4
8:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-8_Summary_MrsGarciasRecessDilemma_ENG_360.mp4
9:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-

9_Summary_DayAndNightDifference_ENG_360.mp4
10:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-10_Summary_WhereDidMySandcastleGo_240105_720.mp4
11:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-11_Summary_WackyWeather_ENG_720.mp4
12:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-12_Summary_ShoppingAtTheSuperstore_ENG_720.mp4
13:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-13_Summary_TreasuredTrash_ENG_360.mp4
14:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-14_Summary_ExploringEcosystems_ENG_360.mp4
15:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-15_Summary_WildBerriesAndJavelinas_ENG_360.mp4
16:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-16_Summary_DandelionSurprise_ENG_360.mp4
17:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-17_Summary_PlantParade_ENG_360.mp4
18:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-18_Summary_AnimalsInBigBend_ENG_360.mp4
19:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-19_Summary_AntFarm_ENG_360.mp4
20:https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN_Unit-20_Summary_FrogAndButterflyLifeCycles_ENG_720.mp4

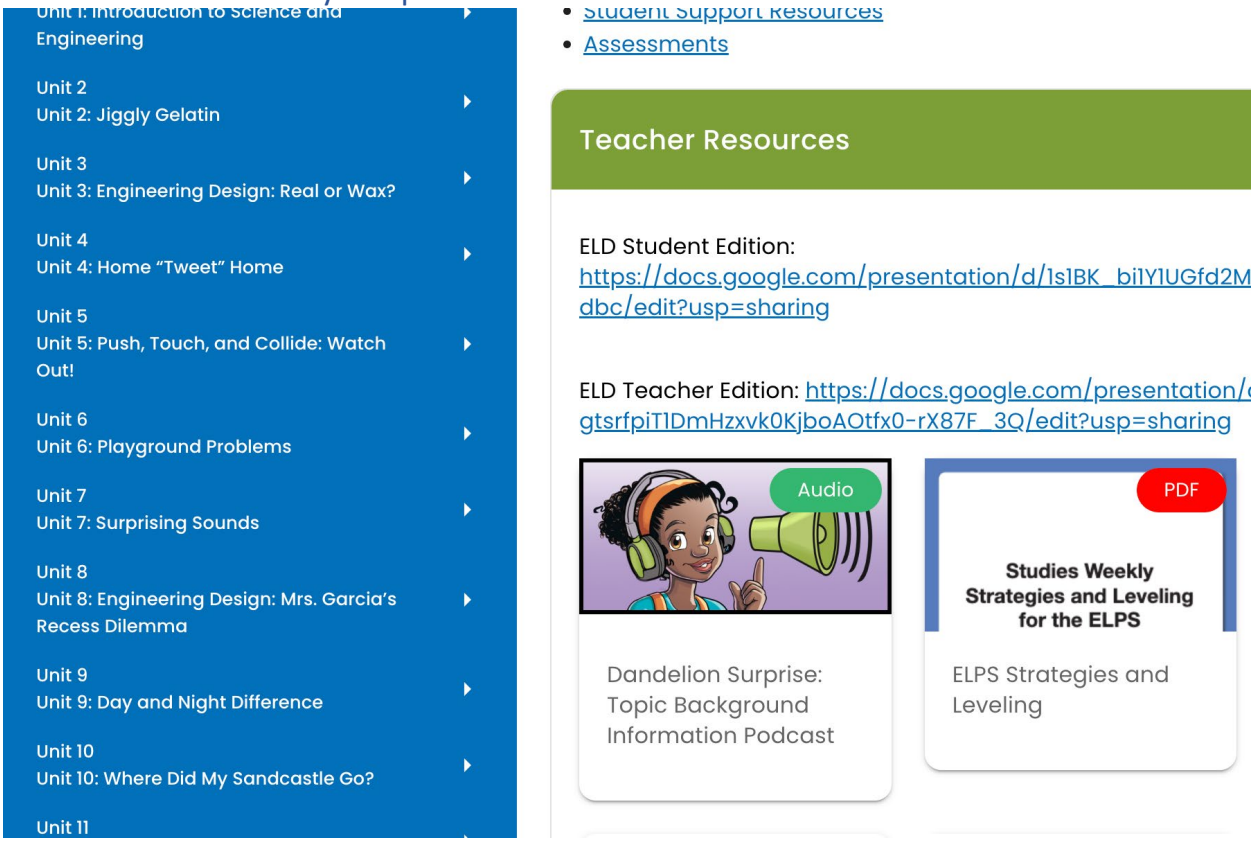
Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource can be found online in Unit 16, Teacher Resources.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2003

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Publisher's rationale for this change if different from overall rationale.
Incorrect resource title

Publisher's description of this change if different from overall description.
Change the title of the Dandelion Surprise: Topic Background Information Podcast to Engineering Design: Dandelion Surprise: Topic Background Information Podcast.

Screenshot of Currently Adopted Content



Screenshot of Proposed Updated Content

Title change to Engineering Design: Dandelion Surprise: Topic Background Information Podcast

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Description of the specific location and hyperlink to the exact location of the currently adopted content.

N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.

This resource will be found online in unit 6, under Teacher Resources.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.

Missing resource

Publisher's description of this change if different from overall description.

This content video is needed and referenced in Activity 2 of the Teacher Edition. Adding a video called Planning an Investigation Content Video to Teacher Resources.

Update to Content Not Reviewed by SRP

Screenshot of Currently Adopted Content
N/A - new resource

Screenshot of Proposed Updated Content
This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/SCI_EX02_UN06_PlanningAnInvestigation-Content-TX_720p.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6, under Teacher Resources.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
This content video is needed and referenced in Activity 1 of the Teacher Edition. Adding a video called Playground Problems: Phenomenon Video to Teacher Resources.

Screenshot of Currently Adopted Content
N/A - new resource

Screenshot of Proposed Updated Content
This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/SCI_EX02_UN06_PlaygroundProblems-Phenomenon-TX_720p.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource can be found online in Unit 6, Teacher Resources.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Update to Content Not Reviewed by SRP

Publisher's rationale for this change if different from overall rationale.

Material needs to be updated to match what is provided in the material kit.

Publisher's description of this change if different from overall description.

Change material references from 8oz cup to 9oz cup

Screenshot of Currently Adopted Content

Create a Ruler Swing

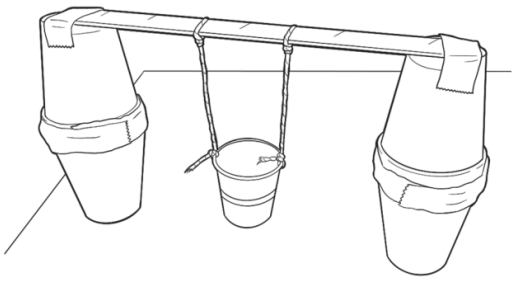
Before starting the activity, the teacher should punch small holes on each side of the 3-oz cups, near the rim.

Materials

- ☐ 3-oz cup (one per group)
- ☐ 8-oz cup (four per group)
- ☐ marbles (four per group)
- ☐ rulers (one per group)
- ☐ tape
- ☐ yarn (six-inch pieces; two per group)

Procedure

1. Put two marbles into two of the 8-oz cups. This helps provide stability for the towers.
2. Place the remaining 8-oz cups, opening to opening, on top of the cups with marbles inside.
3. Tape the cups together where they meet.
4. Tape the ruler across the top of the cups.
5. Tie one piece of the yarn through each of the holes in the 3-oz cups.
6. Tie the unconnected ends of the yarn an equal distance apart to the ruler. The cup should be about one inch above the table so that it is able to swing freely and is reasonably balanced.



Screenshot of Proposed Updated Content

Create a Ruler Swing

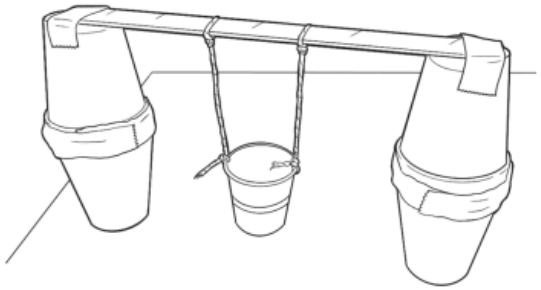
Before starting the activity, the teacher should punch small holes on each side of the 3-oz cups, near the rim.

Materials

- ☐ 3-oz cup (one per group)
- ☐ 9-oz cup (four per group)
- ☐ marbles (four per group)
- ☐ rulers (one per group)
- ☐ tape
- ☐ yarn (six-inch pieces; two per group)

Procedure

1. Put two marbles into two of the 9-oz cups. This helps provide stability for the towers.
2. Place the remaining 9-oz cups, opening to opening, on top of the cups with marbles inside.
3. Tape the cups together where they meet.
4. Tape the ruler across the top of the cups.
5. Tie one piece of the yarn through each of the holes in the 3-oz cups.
6. Tie the unconnected ends of the yarn an equal distance apart to the ruler. The cup should be about one inch above the table so that it is able to swing freely and is reasonably balanced.



Description of the specific location and hyperlink to the exact location of the currently adopted content.

This resource can be found online in Unit 6, teacher resources, Unit Printables.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Description of the specific location and hyperlink to the exact location of the proposed updated content.

Update to Content Not Reviewed by SRP

Same as above

Publisher's rationale for this change if different from overall rationale.

The Playground Problems: Whole Group Discussion Guide printable needs an update.

Publisher's description of this change if different from overall description.

The update includes formatting and material list changes along with associated instruction changes and the addition of discussion guide materials for multiple activities that were missing from the original.

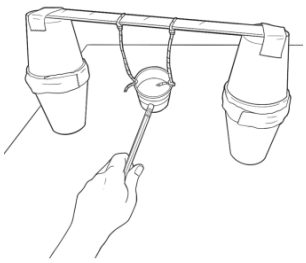
Screenshot of Currently Adopted Content

Name: **Date:**

Pushes Investigation

Materials:

- ☐ dried beans (80 per pair)
- ☐ folded tissues (one sheet per pair)
- ☐ paper (one sheet per pair)
- ☐ ruler swings (one per pair)



Procedure:

1. Place a piece of paper beneath the ruler swing, lining up the bottom of the swing with the top of the paper.
2. Stand an arm's-length away from the ruler swing.
3. Partner A holds the tip of a pencil and pushes the swing with the eraser.
4. Partner B watches the paper and marks how far the swing moves.
5. Switch partners.
6. Add dried beans to the swing and repeat steps 3-4 until the testing is complete.

Safety:

1. Do not stand directly in front of the swing.
2. Do not put your face in front of the swing.

Evidence

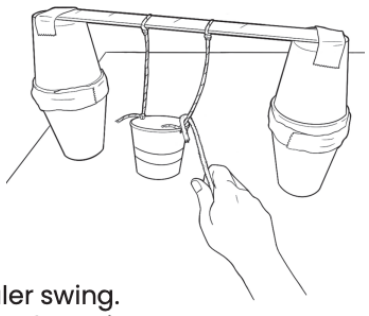
	Weak Push		**Strong Push**	
Empty	_____cm	____ swings	_____cm	____ swings
10 beans	_____cm	____ swings	_____cm	____ swings
20 beans	_____cm	____ swings	_____cm	____ swings
40 beans	_____cm	____ swings	_____cm	____ swings
80 beans	_____cm	____ swings	_____cm	____ swings

Name: Date:

Pulls Investigation

Materials:

- ☐ chenille sticks (one per
- ☐ dried beans (80 per group)
- ☐ paper (one sheet per pair)
- ☐ ruler swings (one per group)



Procedure:

1. Place a piece of paper beneath the ruler swing.
2. Stand an arm's-length away from the ruler swing.
3. Partner A holds the chenille stick and uses it to slowly draw the swing back.
4. Partner B watches the paper and marks how far the swing moves.
5. Switch partners.
6. Add more dried beans to the swing and repeat steps 3-4 until the testing is complete.

Safety:

1. Do not stand directly in front of the swing.
2. Do not put your face in front of the swing.

Evidence

	Weak Push		Strong Push	
Empty	_____cm	____ swings	_____cm	____ swings
10 beans	_____cm	____ swings	_____cm	____ swings
20 beans	_____cm	____ swings	_____cm	____ swings
40 beans	_____cm	____ swings	_____cm	____ swings
80 beans	_____cm	____ swings	_____cm	____ swings

Screenshot of Proposed Updated Content

This printable is 8 pages, the link is provided here:
https://cdn.studiesweekly.com/online/resources/printables/13545/Playground%20Problems-Whole%20Group%20Discussion%20GuideS.pdf

TEXAS SCIENCE Teacher Instructions

Second Grade: Playground Problems | Whole Group Discussion Guide

Activity Duration	Activity Difficulty	Preparation Time	Preparation Effort
20 minutes	Low	Low	Low

Teacher Note:

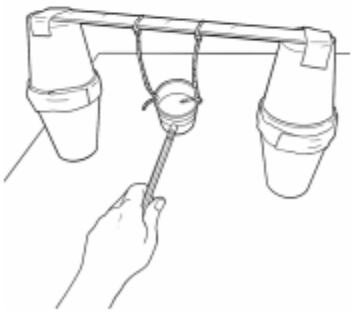
- You will be working with your class to create an anchor chart investigation plan for pushes and pulls. An example of the layout is provided. Below are the ideal materials, procedures, and safety considerations students should make to complete the Swing Pushes and Swing Pulls investigations successfully. The discussion guide provides one example of discussions you could have with your students to guide them toward these ideal answers.
- Prior to completing these investigations with your students, it is recommended that you use the Create a Ruler Swing instructions to create small classroom swings for students to use.

Ideal Investigation Plans

Pushes Investigation

Materials

- ☐ dried beans (80 per pair)
- ☐ ruler swings (one per pair)
- ☐ ruler (one per pair)
- ☐ paper (one sheet per pair)
- ☐ pencils (one per student)



Procedure

1. Place a piece of paper beneath the ruler swing, lining up the bottom of the swing with the top of the paper.
2. Stand an arm's-length away from the ruler swing.
3. Partner A holds the tip of a pencil and pushes the swing with the eraser.
4. Partner B watches the paper and marks how far the swing moves.
5. Switch partners.
6. Add dried beans to the swing and repeat steps 3-4 until the testing is complete.

Safety

1. Do not stand directly in front of the swing.
2. Do not put your face in front of the swing.

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource is found online in unit 6 under Teacher Resources
https://cdn.studiesweekly.com/online/resources/printables/10087/Second%20Grade_%20Playground%20Problems%20Answer%20Key.pdf

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Publisher's rationale for this change if different from overall rationale.

Answer key teacher support needs to be updated

Publisher's description of this change if different from overall description.

Changing teacher support wording in Activity 5, Student Edition Answers.

Screenshot of Currently Adopted Content

Activity 5	Evidence
Student Edition Answers	Answer the questions in the space provided. Use evidence from the article to support your answer. 1. What are you collecting in this investigation? Mark the correct choice. **(measurements)** 2. According to your article, how is that kind of data best recorded? **(in a table or graph)** Create a table. Record how far your swing goes and how many swings it makes after weak and strong pushes. **(Answers will vary depending on the strength of the magnets used.)**

Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content

Activity 5	Evidence
Student Edition Answers	Answer the questions in the space provided. Use evidence from the article to support your answer. 1. What are you collecting in this investigation? Mark the correct choice. **(measurements)** 2. According to your article, how is that kind of data best recorded? **(in a table or graph)** Create a table. Record how far your swing goes and how many swings it makes after weak and strong pushes. **(Answers will vary)**

Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource is found online in unit 16 under Teacher Resources
https://cdn.studiesweekly.com/online/resources/printables/12092/Engineering%20Design%20Teacher%20Instruction%20Page.pdf

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Publisher's rationale for this change if different from overall rationale.
Incorrect printable needs to be replaced.

Publisher's description of this change if different from overall description.
Printable replaced with a student-facing materials list. Resource title: Dandelion Surprise: Teacher Instruction Page.

Screenshot of Currently Adopted Content

TEXAS SCIENCE — Teacher Instructions

Second Grade: Dandelion Surprise | Engineering Design

Materials

Activity Duration	Activity Difficulty	Preparation Time	Preparation Effort
10 minutes	Low	Low	Medium

Materials:

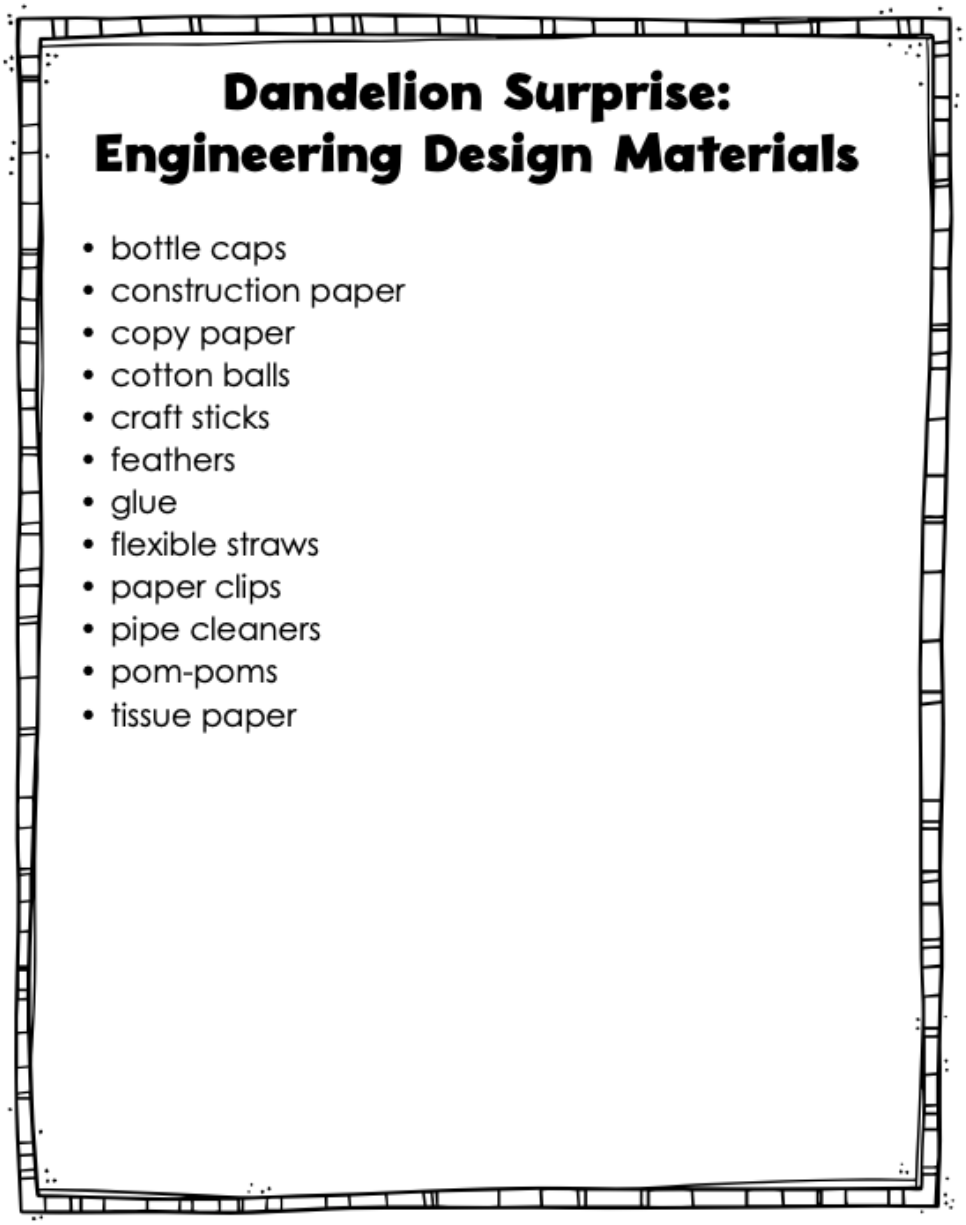
- cotton balls (four per group)
- chenille sticks (four per group)
- glue (as needed)
- craft sticks (four per group)
- felt squares (four 4x4-in squares per group)
- bottle caps (four per group)
- feathers (four per group)
- tissue paper (four sheets per group)
- flexible straws (four per group)
- paper clips (four per group)
- copy paper (four sheets per group)
- construction paper (four sheets per group)
- pom-poms (four per group)

Lesson Guide

Collaborative Learning

1. Divide the class into groups of four students.
2. Project the printable images **Sunflower and Dandelion Seeds** for students to see.
3. Give students access to the design materials to create models of dandelion seeds.
4. Have students follow the directions in their student editions to complete the activity.
5. Have students share their models and answer the question in their student edition with a partner.
6. As you circulate around the classroom, observe or take anecdotal data monitoring students' understanding of the following ideas, connections, or concepts:
    a. Dandelion seeds have structures that help them travel.

Screenshot of Proposed Updated Content



Dandelion Surprise: Engineering Design Materials

- bottle caps
- construction paper
- copy paper
- cotton balls
- craft sticks
- feathers
- glue
- flexible straws
- paper clips
- pipe cleaners
- pom-poms
- tissue paper

Description of the specific location and hyperlink to the exact location of the currently adopted content.

This resource is found online in unit 16 under Teacher Resources.
https://cdn.studiesweekly.com/online/resources/printables/9438/TX-02-SN%20Teacher%20Instruction%20Page_Creating%20a%20Flower%20Garden_a11yS.pdf

Description of the specific location and hyperlink to the exact location of the proposed updated content.

Same as above

Publisher's rationale for this change if different from overall rationale.

Materials and instructions need to be updated.

Publisher's description of this change if different from overall description.

Materials list updates to include Flower Template, glitter and more helpful information. Instructions are rewritten to be more accurate.

Screenshot of Currently Adopted Content

Second Grade: Test: Teacher Instruction Page

Activity Duration	Activity Difficulty	Preparation Time	Preparation Effort
20 minutes	Low	Low	Low

Creating a Flower Garden

Materials:

- flower template, as needed (optional)
- glue (optional)
- plastic soda bottles with caps (two per pair)
- scissors (optional)
- tape

Procedure

1. Tape the tops of each bottle, upside down, to each other.
2. If you are creating the flower garden look, cut out the flowers and glue them around the opening of the top.
3. Fill half the caps with one color of glitter.
4. Fill the other half of the caps with the other color of glitter.

Screenshot of Proposed Updated Content

Second Grade: Teacher Instruction Page

Flower Template			
Activity Duration	**Activity Difficulty**	**Preparation Time**	**Preparation Effort**
20 minutes	Low	Low	Low

Materials:

- Flower Template (as needed, optional)
- glitter (as needed, 2 different colors)
- glue (as needed, optional)
- plastic soda bottles with caps (two per pair)
- scissors (1 pair, optional)
- tape (as needed)

Lesson Guide/Plan:

1. Tape a cap, upside down, to the top of each bottle.
2. If you are creating the flower garden look, cut out the flowers and glue them around the opening of each cap.
3. Fill 12 (or half) of the caps with one color of glitter.
4. Fill 12 (or half) of the caps with the other color of glitter.

Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource is found online in unit 2 under Teacher Resources, Unit Printables
https://cdn.studiesweekly.com/online/resources/printables/8584/TX-03-SN%20Unit%2002%20Prior%20Knowledge_a11yS.pdf

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Publisher's rationale for this change if different from overall rationale.

The wrong prior knowledge article was published.

Publisher's description of this change if different from overall description.

Replacing the wrong prior knowledge article with the correct one.

Screenshot of Currently Adopted Content

Name: **Date:**

Student Prior Knowledge

Look around. Do you see any pencils? Do you see crayons? Maybe you see books, computers, or people. These are examples of matter. Matter is anything that takes up space and has mass. Can you think of more examples of matter? Think of something that takes up space. Rocks, cars, sand, and oil are matter, too. Matter has physical properties. Physical properties are characteristics that you can observe. "Observe" is another word for "see."

Matter has three physical properties people can observe. The physical properties are matter's texture, flexibility, and relative temperature. A matter's texture is how the matter feels when you touch it. We use words like rough, bumpy, smooth, soft, and hard to describe texture. How can you describe a sidewalk's texture? You can say its texture is rough and hard. Flexibility is how bendable matter is. When something bends easily, it is flexible. A rubber band has good flexibility. It bends easily. Does a pencil bend easily? No. A pencil does not have good flexibility. Matter's relative temperature is how hot or cold it is. Ice is matter with a cold temperature. A hot stove is matter with a hot temperature.

Matter can be solid or liquid. A solid keeps its shape. Pencils, books, apples, and bowling balls are solid. If you drop a solid, it keeps its shape. If you put a solid in a container, or a holder, it keeps its shape. For example, a book is solid. If you put a book in your backpack, the book's shape stays the same. A liquid takes the shape of its container. Water is liquid. A cup is a container. When you put water into a cup, the water takes the shape of the cup. Other containers are jugs, bottles, and buckets. Can you think of liquids to put inside these containers? Milk, juice, and soda are liquids.

Hidden Treasures: Prior Knowledge

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Screenshot of Proposed Updated Content

Name: **Date:**

Student Prior Knowledge

Look at a pencil. What does it look like? A pencil is yellow. It has a black tip. It has a pink eraser. A pencil is long. It is round. How does the pencil feel? It feels hard and smooth. These are a pencil's physical properties. A physical property is something you can see and feel.

We use physical properties to classify, or group, objects. We can see an object's shape. We can see an object's color. We can feel an object's texture. Shape, color, and texture are physical properties.

Objects are a shape. There are many shapes. Circles, triangles, rectangles, and squares are shapes. Look around you. Do you see an object shaped like a circle? A clock can be a circle!

Objects have colors. Red, orange, and yellow are colors. Green, blue, purple, and pink are colors. There are many different colors! There are shades of colors, too. Shades are lighter and darker. The sky can be light blue. The sky can be dark blue, too.

Objects have texture. The texture is how the object feels when you touch it. Textures can be bumpy, smooth, soft, and hard. For example, a sidewalk is bumpy.

There are other properties we use to classify. Objects can be larger or smaller. They can be heavier or lighter. For example, a brick is heavier than a feather.

Scientists use physical properties to classify objects all of the time! Now, try to find the physical properties of the objects around you.

Jiggly Gelatin: Prior Knowledge

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Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 3 Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1993

Publisher's rationale for this change if different from overall rationale.
Wax museum images are missing

Publisher's description of this change if different from overall description.
Adding 4 wax museum images to align with Activity 6 of the unit.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content



BENJAMIN FRANKLIN
The Framing of the Constitution
MARTIN LUTHER KING, JR.

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

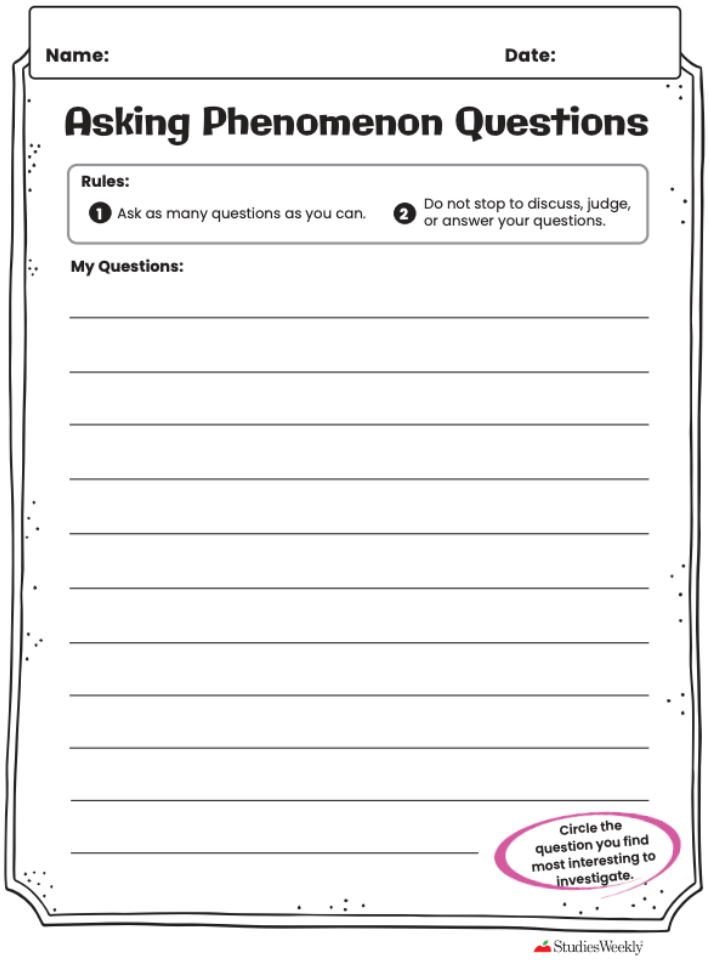
Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 4 under Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1994

Publisher's rationale for this change if different from overall rationale.
Missing student printable

Publisher's description of this change if different from overall description.
Adding the student printable, Asking Phenomenon Questions

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 4 under Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1994

Publisher's rationale for this change if different from overall rationale.
Missing student printables

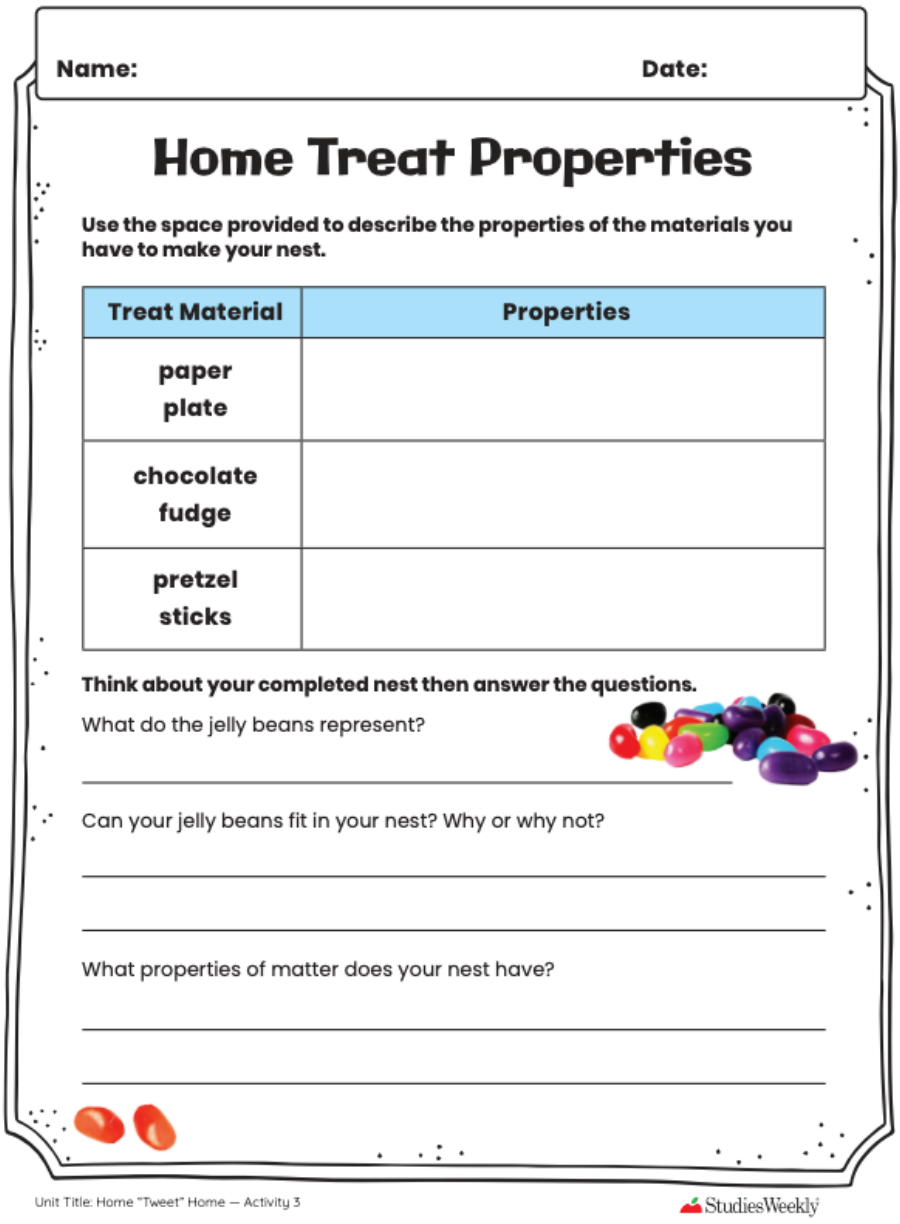
Publisher's description of this change if different from overall description.
Adding the student printables, Home Treat Properties, Home "Tweet" Home, Ornithology:Career

Connection, Nest Cards, and Next Challenge.

Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content



Name: Date:

Home Treat Properties

Use the space provided to describe the properties of the materials you have to make your nest.

Treat Material	Properties
paper plate	
chocolate fudge	
pretzel sticks	

Think about your completed nest then answer the questions.

What do the jelly beans represent?

Can your jelly beans fit in your nest? Why or why not?

What properties of matter does your nest have?

Unit Title: Home "Tweet" Home — Activity 3

StudiesWeekly

TEXAS SCIENCE Extension Activities

Second Grade: Home "Tweet" Home

ELAR 2.7C: Use text evidence to support an appropriate response.

	Lesson Time	5E
Home Treat Home Extension Activity	20 minutes	Explain

Lesson Guide

Reading to Learn

1. Direct students to the article in their student editions.
2. Read the article aloud.
3. **Ask:** How is cooking like making a nest? **(Chefs have to consider the properties of the materials they use, just as birds have to consider the properties of the materials they plan to use in their nest.)**

Discussion

1. Have students share their nest creation with a teammate.
2. **Discuss:** How did you use the materials provided to make your nest? Why did you choose to use the materials in that way?
3. **Ask:** Can the nest we made just now be used to protect real eggs? Why or why not?
4. Explain that though these nests can't be used for real birds, we could find materials similar to this in nature.
5. **Ask:** What could the different parts of your snack nest represent from a real nest? **(Answers will vary but could include that the pretzels could represent sticks or twigs, the peanut butter or fudge can represent mud, and the rice cereal can represent sand, gravel, rocks, or leaves.)**

Debrief

1. **Ask:** How is cooking like making a nest? **(When people cook, they consider the properties of the materials and ingredients they use to obtain an outcome, just as birds consider the properties of matter when deciding on the materials they will use for making their nest.)**
2. [Connection to Cooking]
   Explain to students that cooking is similar to making a nest because the properties of the material used makes a big difference in how the final product comes out.
3. **Ask:** What are some other tasks you might do that would require you to pay attention to properties of matter like birds do when they make nests? **(building something, sewing, coloring or painting, etc.)**
   a. **Ask:** What are some properties that may be important for that task? **(building: hardness, flexibility, color, size, shape; sewing: color, size, shape, flexibility; coloring or painting: color, size, shape, etc.)**
4. **Ask:** What are some other items you can take apart and put back together? **(Answers will vary, but may include things like building blocks, mechanical objects or toys, etc.)**
5. **Ask:** Are there any questions you still have from this unit?

Name: **Date:**

Home Treat Home

Think of a bird choosing each small piece of its nest. The bird chooses carefully. Each piece has an important property to help make the nest just what the bird needs. If we took the nest apart, another bird could take those pieces and make a different nest.

Using pieces to create one whole object is something we can see in the world around us. Builders use different materials to build our homes, schools, and roads. Each material they use has important properties that make the whole project better.

Scientists and inventors do the same thing. They combine different materials with unique properties to create something new. This is how we get new medicines, phones, and other new technology.

Another example is recipes. Cooks combine separate ingredients to make a new food. The same ingredients can be used in different recipes. Cooks choose ingredients that have the kind of properties they need to make their recipe work. They might need a certain ingredient that is sweet or salty. They may need something that is liquid, or that will add a certain texture. The most important thing is getting all the ingredients to work together to make something extra "tweet."

Reflect and Connect

In this unit you learned how birds use different properties of materials to make nests. In this lesson, you learned that cooks apply the same concept to cooking. What are other situations where it is important for someone to choose materials carefully? Explain how properties of matter are important then.

EXPLORE SCIENCE **Extension Activities**

Second Grade: Home "Tweet" Home

ELA **Writing Informational Texts**

	Lesson Time	5E
Career Connection	20 minutes	Elaborate

Objective

Students will be able to identify what ornithology is and use what they learned to determine if they would like to be an ornithologist.

Materials

- Ornithology video
- Ornithology printable (one per student)
- pencils (one per student)

Lesson Guide

Introduce Activity

1. Explain to students that they will be watching a video about ornithology.
2. **Ask:** What do you think ornithology is? **(Answers will vary and may include misconceptions. Try not to guide, confirm, or deny any responses.)**
3. Encourage students to pay close attention to what ornithology is and how it relates to the unit they are studying.

Collaborative Learning

1. Play the Ornithology video.
2. **Ask:** What kinds of things do ornithologists do?

Independent Work

1. Give each student a pencil and a copy of the Ornithology printable.
2. Have students use what they learned in the video to answer the questions.
3. **Ask**: Who would like to be an ornithologist when they grow up? Why?
4. **Ask**: Who would not like to be an ornithologist when they grow up? Why not? What would you be instead?

Debrief

1. **Ask:** What did you do in this activity? **(learned about ornithology)**
2. **Ask:** How does this connect or relate to bird nests? **(Ornithologists study birds.)**
3. **Ask:** What did you learn from this activity? **(Ornithology is the study of birds.)**
4. **Ask:** How did this activity support, add to, or change what we have been learning in this unit? **(This activity added to what we already knew about birds by teaching us about the scientists who study them.)**

Name: Date:

Ornithology

1. What is an ornithologist? Use evidence from the video to support your response.

2. Would you like to be an ornithologist when you grow up? Why or why not?

StudiesWeekly

Nest Cards

Hanging Nest	Floating Nest
	
	
	
	

StudiesWeekly

Hanging Nest Challenge

Materials:

- *two pencils*
- *two large books*
- *designed nest*
- *tape*
- *weighted plastic egg*

Directions:

1. Tape two pencils to the edge of a table.
2. Place the two large books on each end of the pencil that is taped to the edge of the desk.
3. Suspend the nest between the ends of the two pencils.
4. Place the egg inside the nest.
5. Record how long the nest is able to hold the egg.
6. If the nest can hold the egg longer than 90 seconds, you may end the test.
7. If the nest does not hold for 90 seconds, what adjustments could you make to improve the nest?

Floating Nest Challenge

Materials:

- *pan of water*
- *weighted plastic egg*
- *designed nest*

Directions:

1. Place the nest on the water.
2. Place the egg on the nest.
3. Record how long the nest is able to hold the egg.
4. If the nest can hold the egg longer than 90 seconds, you may end the test.
5. If the nest does not hold for 90 seconds, what adjustments could you make to improve the nest?

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Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 5 under Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2004

Publisher's rationale for this change if different from overall rationale.
Missing student printable

Publisher's description of this change if different from overall description.
Adding the student printable, Push, Touch, and Collide: Watch Out! Lower Lexile Article

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

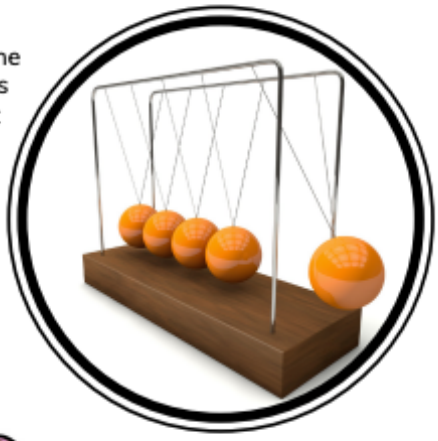
TEXAS SCIENCE

StudiesWeekly

PUSH, TOUCH, AND COLLIDE: WATCH OUT!

Activity 4: Push, Touch, and Collide: Watch Out!

Objects push on each other when they touch and collide. Sometimes, the objects' shapes will change. Other times, the objects' shapes will stay the same. What makes an object's shape change or stay the same? There are many factors. It depends on if the objects collide or just touch. It depends on how hard the objects collide. It also depends on how fast each object is going when they collide. The size of each object and its structure can also affect whether the shape changes or not. All of these things affect the object's energy. Think about the investigations you have done. Connect what you read to examples from your investigations.



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Description of the specific location and hyperlink to the exact location of the currently adopted

content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6 Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.
Missing video

Publisher's description of this change if different from overall description.
Adding a video of a bird moving up and down as a wave passes

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content
This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/Week%2015%20w_music00000000002.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6 Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.
Missing video

Publisher's description of this change if different from overall description.
Adding the Phenomenon video showing students on a swing set.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/Week%2015%20w_music00000000002.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6 Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.

Missing video

Publisher's description of this change if different from overall description.

Adding a content video of a camper

Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content

This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/Week%208%20W_music%2000000000.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6 Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

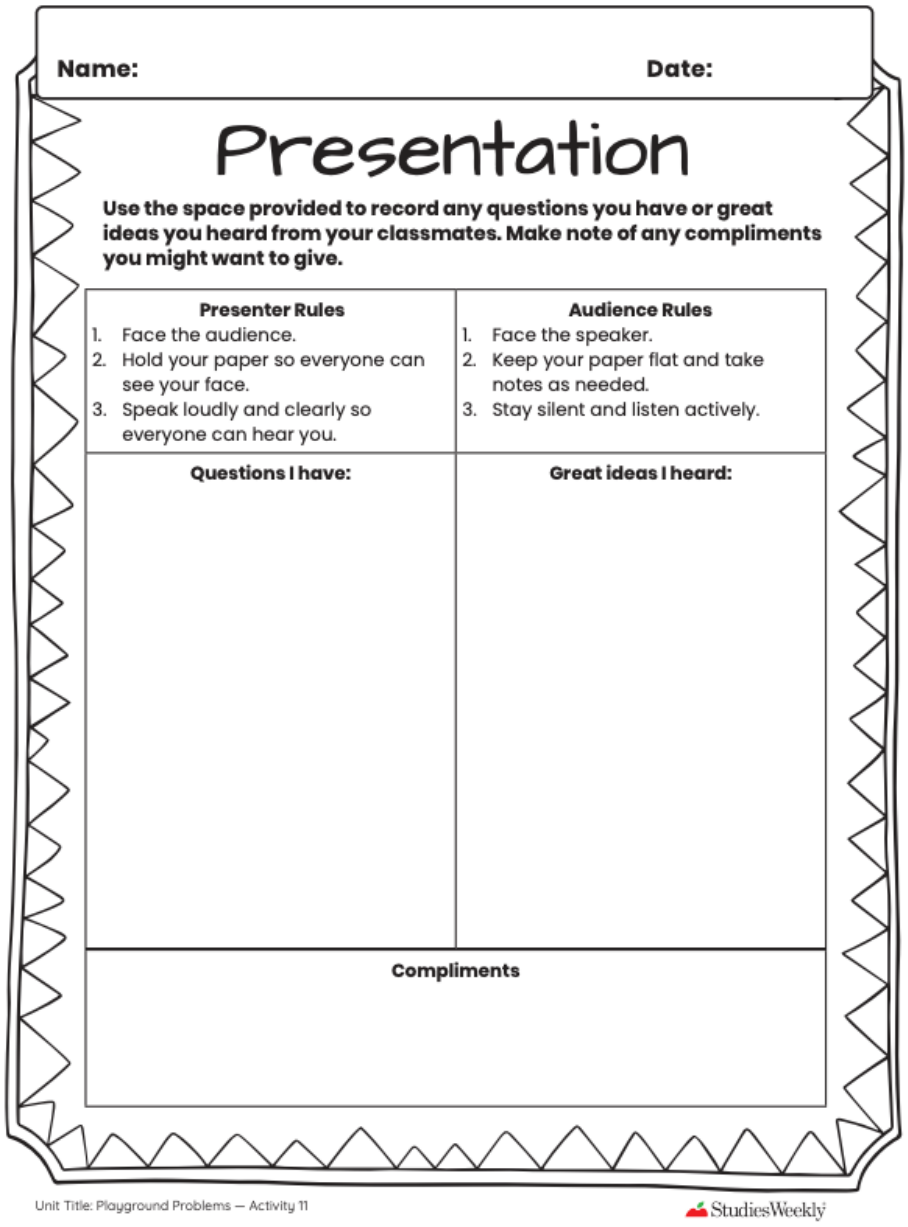
Update to Content Not Reviewed by SRP

Publisher's rationale for this change if different from overall rationale.
Missing student printable

Publisher's description of this change if different from overall description.
Adding the printable, Presentation

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content



Name: **Date:**

Presentation

Use the space provided to record any questions you have or great ideas you heard from your classmates. Make note of any compliments you might want to give.

Presenter Rules	**Audience Rules**
1. Face the audience. 2. Hold your paper so everyone can see your face. 3. Speak loudly and clearly so everyone can hear you.	1. Face the speaker. 2. Keep your paper flat and take notes as needed. 3. Stay silent and listen actively.
Questions I have:	**Great ideas I heard:**
Compliments	

Unit Title: Playground Problems — Activity 11

StudiesWeekly

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

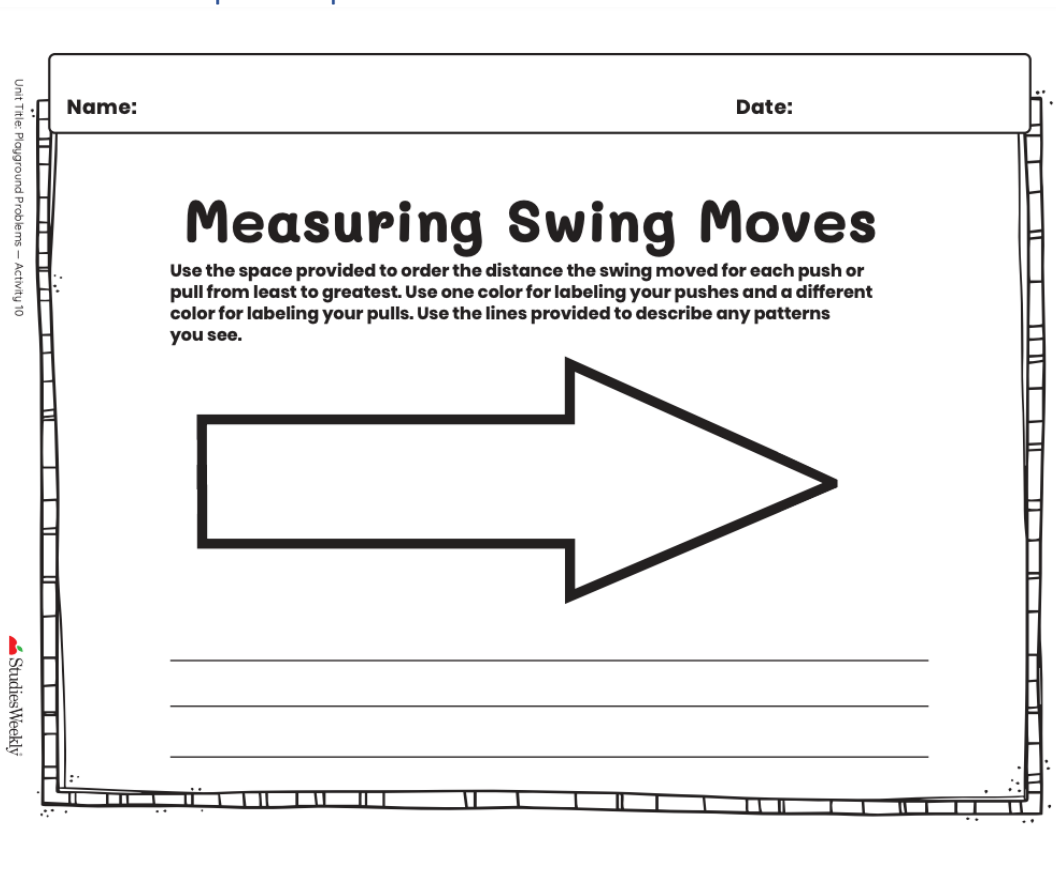
Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6 Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.
Missing student printables

Publisher's description of this change if different from overall description.
Adding the printables Measuring Swing Moves and Pendulum Art

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content


Unit Title: Playground Problems – Activity 10

Name: Date:

Measuring Swing Moves

Use the space provided to order the distance the swing moved for each push or pull from least to greatest. Use one color for labeling your pushes and a different color for labeling your pulls. Use the lines provided to describe any patterns you see.

StudiesWeekly

Name: Date:

Pendulum Art

Before starting this activity, poke a hole in the bottom of each cup and place a piece of tape over the hole.

Materials:

- 1 cup paint mixed with 1/2 cup water (one per student)
- butcher paper (one 3x3 foot sheet per student)
- 3-foot pieces of string (4)
- chairs (one per student)
- foam cups (one per student)
- plastic tablecloth or other drop cloth (1)
- scissors (one pair per student)
- tape (as needed)

Procedure:

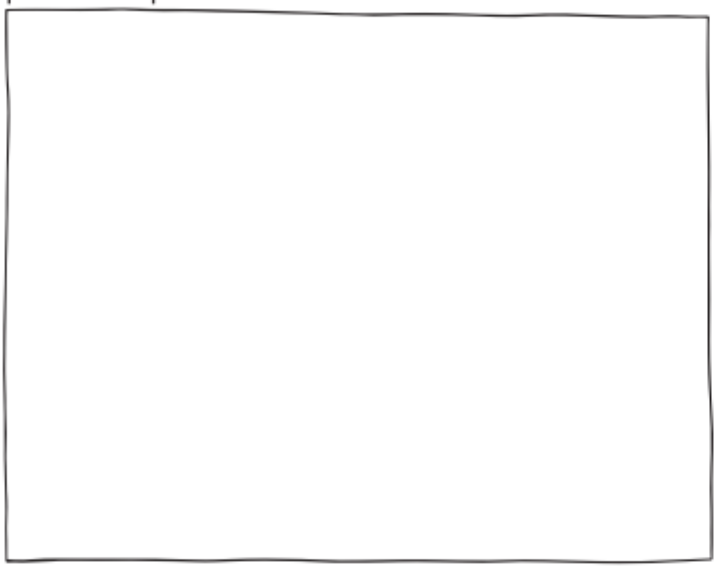
1. Pick a cup that your teacher has poked holes in and run a piece of string through.
2. Hang the string over the back of your chair.
3. Gently pull the string back and remove the tape from the bottom of the cup. Paint will start coming out immediately, so let go of the cup quickly.
4. Observe the effects of your pull and the design it is creating on the butcher paper.

Name: **Date:**

Pendulum Art Recording Sheet

After completing the Pendulum Art, answer the questions below.

Draw the pattern the pendulum made.



What happens if you swing the pendulum gently or swing it more forcefully?

What does the painting look like or remind you of?

What did you learn about pulls from this center?

Name: **Date:**

Pendulum Art Recording Sheet

Answer Key

After completing the Pendulum Art, answer the questions below.

Draw the pattern the pendulum made.

a picture replicating the pattern of a pendulum

What happens if you swing the pendulum gently or swing it more forcefully?

Answers will vary but should include: If you move the pendulum gently, a wider picture will be made; if you move it forcefully, a more narrow picture will be made.

What does the painting look like or remind you of?

Answers will vary based on students' imaginations.

What did you learn about pulls from this center?

Answers will vary. Example: The strength of a pull can affect the direction and position of an object.

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 8, Teacher Resources, Assessments
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2002

Publisher's rationale for this change if different from overall rationale.
Missing teacher Answer Key for the Unit

Publisher's description of this change if different from overall description.
Adding a complete Answer Key for the teacher. It contains student edition and formative assessment answers.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content
For the full resource go to:
https://cdn.studiesweekly.com/online/resources/printables/9992/Unit%208%20Answer%20Key.pdf

Second Grade: Mrs. Garcia's Recess Dilemma

Activity 1	Engineering Design Problem
Student Edition Answers	The problem: **Answers may vary but could include: Mrs Garcia needs to communicate with her class when they are outside at recess, but they cannot hear or see her.** Why it needs to be solved: **Answers may vary but could include: The students need to know when recess is over so they can go back inside to learn. The students need to know if there is an emergency so they can stay safe.**
Formative Assessment: Student Edition Response Engineering Design Rubric	Use students' response in the "Define" section and the Engineering Design Rubric to assess proficiency of the success criteria. **Feedback: Pair with a Peer** If students struggled to complete the formative assessment at proficiency level, ask them to problem-solve with a peer who showed mastery and compare their responses. Encourage the students to assess the value of the feedback and whether or not they will incorporate it.

Activity 2	Conduct Research
Student Edition Answers	**Communicating Over a Distance** Are Mrs. Garcia's students looking at her the whole time they play at recess? **no** Could Mrs. Garcia's students hear her if she was loud enough? **yes** Which would be a better solution: communicating with light or sound? **sound** **Signals** Would using a sound signal be a good solution to Mrs. Garcia's problem? Why or why not? **Answers could include: Yes, because she could have a device that sends sound signals that mean different things; no, because it would not be loud enough for all the students to hear.** Would you be able to create a sound signal using materials available in your classroom? **yes, depending on the type of device to be made** **Messengers** Would using a messenger be a good solution to Mrs. Garcia's problem? Why or why not? **Answers could include: Yes, because someone in our class could have the job of being the messenger; no, because it would**

Description of the specific location and hyperlink to the exact location of the currently adopted content.

N/A - new resource

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 9, Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1990

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding images that are part of the phenomenon discussion.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 9, Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1990

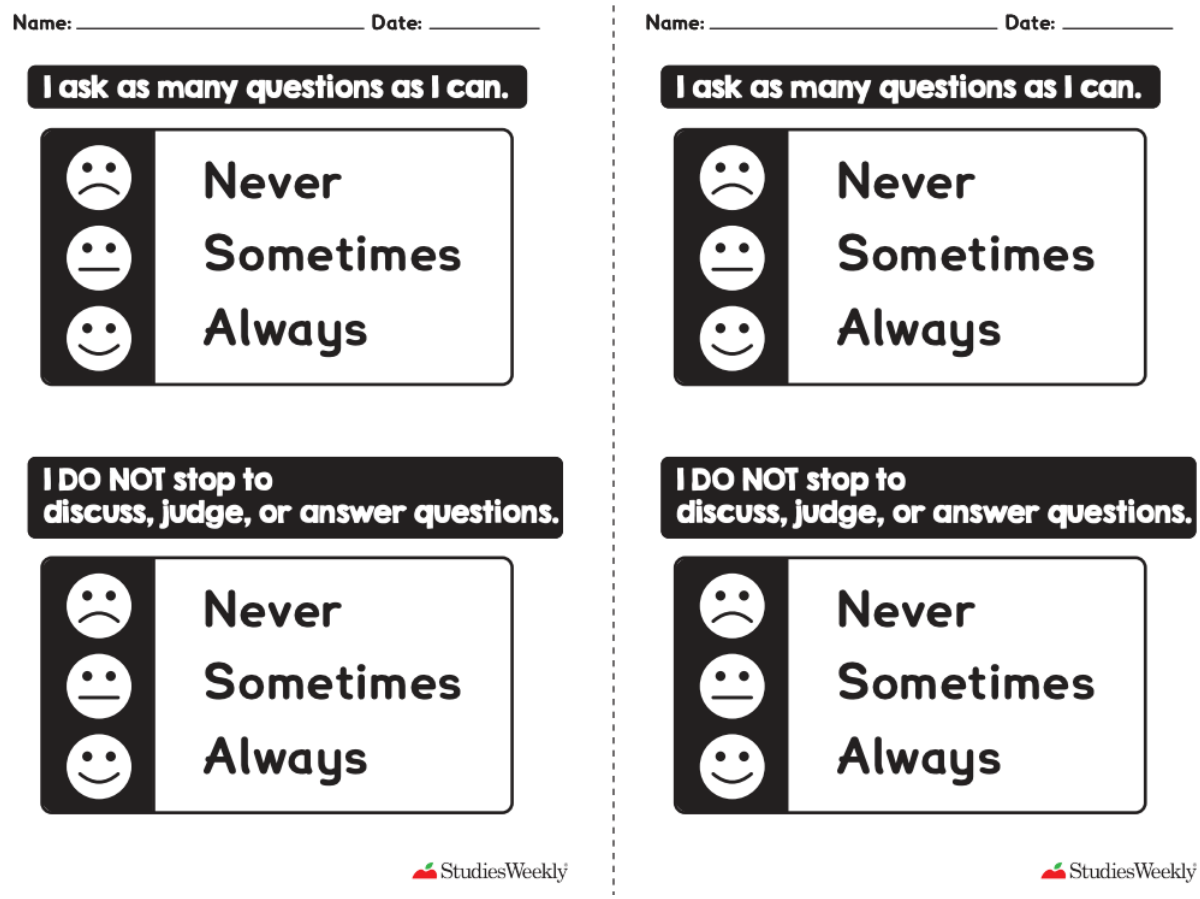
Update to Content Not Reviewed by SRP

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding Questioning Self-Assessment printable that is needed for Activity 1

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 10, Teacher Resources, Assessments

Update to Content Not Reviewed by SRP

https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2006

Publisher's rationale for this change if different from overall rationale.

Missing resource

Publisher's description of this change if different from overall description.

Adding Unit Assessment Answer Key for the teacher

Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content

TEXAS SCIENCE — Unit Assessment Answer Keys

Second Grade: Where Did My Sandcastle Go?

1.	Fill in the blank: **Wind** and **water** can move soil and rocks. Blank 1 Distractors: Light, Sun, Sound, Wind Blank 2 Distractors: stars, heat, light, water
2.	What made the rock change? A. heat B. light **C. water** D. wind 
3.	Open Response: The sand on the beach was once flat. Describe what likely caused the dunes to form. **Answers could include: Wind moved the sand and created the dunes. Water moved the sand and created the dunes. Wind and water moved the sand and created the dunes.** 
4.	**True** or False: Rocks and soil can be moved by wind and water at the same time.
5.	Steven wants to know why this cave has a hole at the top. What can he do to find out? a. He can classify matter. b. He can observe the sky. c. **He can do an investigation.** d. He can push and pull on the cave.

Unit Title: Where Did My Sandcastle Go? — Second Grade

StudiesWeekly

Assessment Map:		1	2	3	4	5
SEP	**Science and Engineering Practices**					
	Asking Questions/Defining Problems	x	x			
	Developing and Using Models			x		
	Planning and Carrying Out Investigations			x		
	Analyzing and Interpreting Data				x	
	Engaging in Argument from Evidence					x
	Science Standard					
	2.6A	x	x	x	x	x
RTC	**Recurring Themes and Concepts**					
	Cause and Effect					x
	Scale, Proportion, and Quantity		x		x	x
	Structure and Function	x		x	x	x
	Depth of Knowledge	1	2	n/a	2	3
Item Activity # *The activity associated with this item if needed for remediation or review.*		4	4	4	4	3

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 11, Teacher Resources, Assessments
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1992

Publisher's rationale for this change if different from overall rationale.
Missing resources

Publisher's description of this change if different from overall description.
Adding Reading Comprehension questions and Answer Key for the Unit.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

Name _____ Date _____

Texas Science Studies Weekly: Second Grade

Wacky Weather

Reading Comprehension

Activity 5: John C. Freeman and Mario Molina

1. Which scientist studies weather?
    A. biologist
    B. chemist
    C. meteorologist
    D. hydrologist

2. What was Molina's Nobel Prize for?
    A. biology
    B. chemistry
    C. meteorology
    D. hydrology

Activity 7: Flooding

1. What is a flood?
    A. water on dry land
    B. dirt moving downhill
    C. thunder and lightning
    D. a rotating tube of wind

2. What is related to flooding?

   A. cloudiness

   B. humidity

   C. precipitation

   D. temperature

Activity 8: Tornadoes

1. What is a tornado?

   A. water on dry land

   B. dirt moving downhill

   C. thunder and lightning

   D. a rotating tube of wind

2. What type of air at ground level makes a tornado?

   A. cool, dry

   B. warm, dry

   C. cool, moist

   D. warm, moist

Activity 9: Hurricanes

1. What do hurricanes bring?

   A. hail

   B. wildfires

   C. big waves

   D. dust storms

2. Where do hurricanes form?

   A. on land

   B. in marshes

   C. in mountains

   D. over the ocean

TEXAS SCIENCE Reading Comprehension Answer Keys

Second Grade: Wacky Weather

Activity 5 John C. Freeman and Mario Molina	**1.**	Which scientist studies weather? a. biologist b. chemist **c. meteorologist** d. hydrologist
	2.	What was Molina's Nobel Prize for? a. biology **b. chemistry** c. meteorology d. hydrology
Activity 7 Flooding	**1.**	What is a flood? **a. water on dry land** b. dirt moving downhill c. thunder and lightning d. a rotating tube of wind
	2.	What is related to flooding? a. cloudiness b. humidity **c. precipitation** d. temperature
Activity 8 Tornadoes	**1.**	What is a tornado? a. water on dry land b. dirt moving downhill c. thunder and lightning **d. a rotating tube of wind**
	2.	What type of air at ground level makes a tornado? a. cool, dry b. warm, dry c. cool, moist **d. warm, moist**

Activity 9 Hurricanes	**1.**	What do hurricanes bring? a. hail b. wildfires **c. big waves** d. dust storms
	2.	Where do hurricanes form? a. on land b. in marshes c. in mountains **d. over the ocean**

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 13, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1995

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding the student printable, Treasured Trash Lower Lexile Articles for activities 3 and 5

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

TEXAS SCIENCE

Studies Weekly

TREASURED TRASH

Activity 3: Trash Troubles

The average American creates about 1,704 pounds of trash each year. Most of it ends up in landfills. These are places set aside for trash. Trash stays there for a very long time. Some trash ends up in our oceans. Some of it ends up in rivers and lakes. That can harm the environment. It can also harm the animals who live there. Many people feel the pileup of waste is a problem.

Some people try to limit the amount of trash they make. They pay attention to what they use. They choose to use items that do not need to be thrown away quickly. Some people collect their trash. Then, they take it to a center where it can be turned into something new. This stops trash from ending up in landfills. It also keeps trash out of the environment. This is good for the planet. However, some places don't have these centers. People can still choose to collect trash they would throw away. They can reuse it. They can refill a bottle after it is empty. They can turn it into something different. People all around the world reuse materials. Plastic bottles can become planters. They can become watering cans. Glass jars can become flower vases. Plastic bags get turned into wearable fashion. People get very creative with these materials. There are many ways to turn trash into treasure.

Images courtesy of Getty Images

StudiesWeekly

TEXAS SCIENCE
Studies Weekly
TREASURED TRASH

Activity 5: Awesome in Austin

The city of Austin, Texas, and the people who live there know how much trouble trash can be. Austin has set a goal to lower the amount of trash they send to landfills. They want to throw away almost nothing by the year 2040. To meet their goal, they made some changes. One change they made was to make centers for people to bring things that they no longer want. These things must still be useful for other people. These items could be house paint. They could be gardening tools. Other people might be looking for those items. They can go to the center. There, they can get things that someone gave away. And it is for free! Now, it doesn't have to go to a landfill. There are things that the centers don't take that we don't want to keep. People who live in Austin can still get rid of those things. Many people use one big trash can for all their trash. In Austin, people have three trash cans. One trash can is for things that can be taken to a center to be turned into compost or soil filled with nutrients. The one used for trash goes to the landfill. Very little needs to go to the landfill. That's because most of it can be recycled, composted, or reused by others.

Images courtesy of Getty Images

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 13, Teacher Resources, Assessments
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1995

Publisher's rationale for this change if different from overall rationale.
Missing resources

Publisher's description of this change if different from overall description.
Adding a Unit Assessment and Unit Assessment Answer Key

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

Name _____ Date _____

Texas Science Studies Weekly: Second Grade

Treasured Trash

Unit Assessment

1. Which choice will produce less trash?
   A. turning paper into paper balls.
   B. Refilling a water bottle with water.
   C. Putting soda cans into the ocean.

2. How can humans limit the impact they make with trash?

3. Humans cannot reduce the amount of trash they make.

TRUE FALSE

4. Which picture shows trash that has been properly disposed of?

A.

B.

C.

5. What is the effect of using less paper?

A. Using less paper will make you throw away less paper.

B. Using less paper will not make you throw away more paper.

C. Using less paper will make you throw away the same amount of paper.

TEXAS SCIENCE — Unit Assessment Answer Keys

Second Grade: Treasured Trash

1.	Which choice will produce less trash? a. Turning paper into paper balls. **b. Refilling a water bottle with water.** c. Putting soda cans into the ocean.
2.	Constructed Response: How can humans limit the impact they make with trash? **(Answers will vary but should include examples of reusing, reducing, and recycling.)**
3.	True or **false**: Humans cannot reduce the amount of trash they make.
4.	Which picture shows trash that has been properly disposed of? a.  b.  **c.** 
5.	What is the effect of using less paper? **a. You throw away less paper.** b. You throw away more paper. c. You throw away the same amount of paper.

Assessment Map:		1	2	3	4	5
SEP	**Science and Engineering Practices**					
	3B: Communicate Explanations and Propose Solutions		x			
	Science Standard					
RTC	**Recurring Themes and Concepts**					
	5B: Cause and Effect		x			x
	Depth of Knowledge	1	2	1	1	1

Description of the specific location and hyperlink to the exact location of the currently adopted content.

Update to Content Not Reviewed by SRP

This resource is found online in Unit 14, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2007

Description of the specific location and hyperlink to the exact location of the proposed updated content.
the same as above
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2007

Publisher's rationale for this change if different from overall rationale.
Wrong resource published

Publisher's description of this change if different from overall description.
Replacing the existing prior knowledge article with the correct one.

Screenshot of Currently Adopted Content

Name: **Date:**

Student Prior Knowledge

Water is found all over Earth. Streams and lakes have water. Water is even under the ground! A body of water is a big area of water. A river is a body of water.

People need water. People use water every day. People use water to drink. People use water to cook. People use water to clean. People use water to grow food. There are many ways to use water.

Water can run out. If people use too much water, they can use it all up. People need to conserve water. When you conserve water, you use it carefully. You use water responsibly. You protect water when you conserve it.

Conserving water is important. We do not want to run out of clean water. People, plants, and animals need clean water to survive.

There are ways to conserve water. People can use less water. For example, you can take a fast shower. You can turn off the faucet when you brush your teeth.

Another way to conserve water is to protect it. People protect water by keeping it clean. People should not throw trash into the water. Throwing trash into lakes and streams makes the water dirty. We can't use water if it gets too dirty.

Screenshot of Proposed Updated Content

Name: **Date:**

Student Prior Knowledge

An environment is where plants and animals live. An environment has two types of things. They have living things. They have nonliving things. Living and nonliving things are both important.

All living things have needs. They need food and water. They need air. They need shelter, which is a safe place to live. They need space, or room, to live and grow. Living things have babies. An animal is a living thing. A plant is a living thing. Living things move, grow, and eat.

Plants and animals need food and water to stay alive. Food and water are called nutrients. Plants and animals need nutrients to grow. Some living things eat plants. Some living things eat meat. An animal, like a panda, uses its mouth to drink water. It uses its mouth to eat bamboo. A plant gets its water and nutrients from its roots and leaves. Food and water give living things energy.

Can you survive without breathing? No. Plants and animals need air. Air is all around us. Air is in little spaces in the ground. Air is also in the water. Fish use gills for breathing air in the water.

Living things need shelter. A shelter is a place to live. Living things need space to move. They need space to find food and water. They need space to find shelter.

Plants and animals produce young. Produce means they make more or grow something. A mother dog and a father dog will make more puppies. Plants grow and make their own seeds. Their seeds turn into new plants.

Nonliving things do not have needs. They do not grow. They do not need food and water. They do not need air, shelter, or space. They do not have babies. Objects, like computers and cars, are nonliving. Rocks are nonliving. Pencils are nonliving.

Living things and nonliving things work together. Living things need nonliving things to survive. The sun, air, and water are nonliving. Plants and animals need these nonliving things to live and grow.

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - missing resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in Unit 15, Teacher Resources, Assessment
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1999

Publisher's rationale for this change if different from overall rationale.
Missing resources

Publisher's description of this change if different from overall description.
Adding the Reading Comprehension questions and Answer Key for Activity 3 and 4

Screenshot of Currently Adopted Content
N/A - missing resource

Screenshot of Proposed Updated Content

Name _____ Date _____

Texas Science Studies Weekly: Second Grade

Wild Berries and Javelinas

Reading Comprehension

Activity 3: Producers

1. What is a producer?
   A. fruits and vegetables
   B. an organism that eats
   C. a food chain of plants
   D. something that makes food

2. Which organism is the producer?
   A. bear
   B. grass
   C. javelina
   D. rat

Activity 4: Consumers

1. What is a consumer?
   A. fruits and vegetables
   B. an organism that eats
   C. a food chain of plants
   D. something that makes food

2. Which organism is the consumer?

A. bluebonnet

B. dog

C. grass

D. tree

TEXAS SCIENCE Reading Comprehension Answer Keys

Second Grade: Wild Berries and Javelinas

Activity 3 Producers	**1.**	What is a producer? a. fruits and vegetables b. an organism that eats c. a food chain of plants **d. something that makes food**
	2.	Which organism is the producer? a. bear **b. grass** c. javelina d. rat
Activity 4 Consumers	**1.**	What is a consumer? a. fruits and vegetables **b. an organism that eats** c. a food chain of plants d. something that makes food
	2.	Which organism is the consumer? a. bluebonnet **b. dog** c. grass d. tree

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

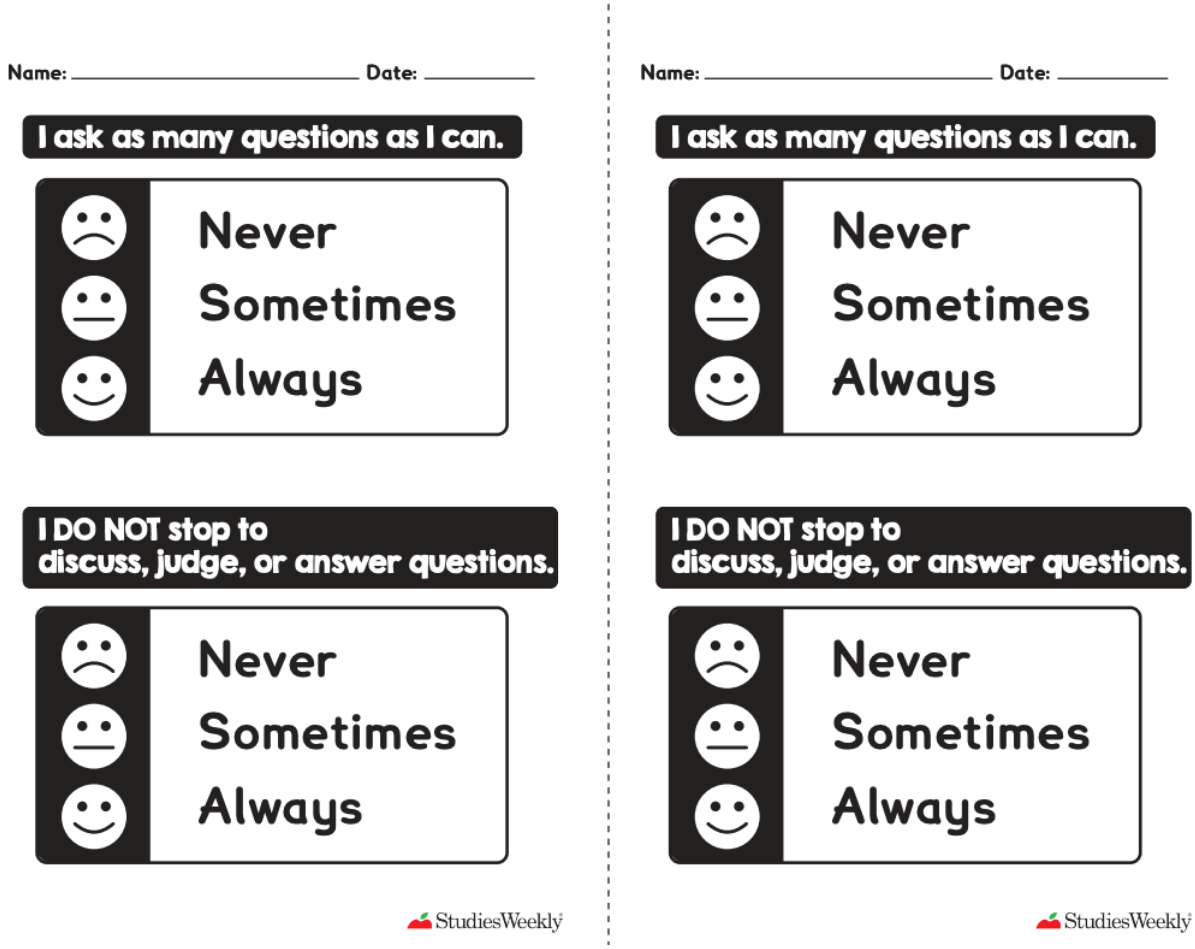
Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 15, Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1999

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding Questioning Self-Assessment printable that is needed for Activity 1

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 15, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1999

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding Food Chain Cards printable that is needed for Activities 3 & 4

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

Name: **Date:**

Food Chain Cards

Cut out each image and paste into your student edition, using the directions provided.

Images courtesy of Getty Images, Jacobo Werther, Saleem Hameed, and Robertbody on Wikimedia

Unit Title: Wild Berries and Javelinas — Activity 3

Studies Weekly

Images courtesy of Getty Images, Jacobo Werther, Saleem Hameed, and Robertbody on Wikimedia

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 18, Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-

8dc1193cd594/publications/511/teacher-resources?unit_id=2008

Publisher's rationale for this change if different from overall rationale.

Missing resource

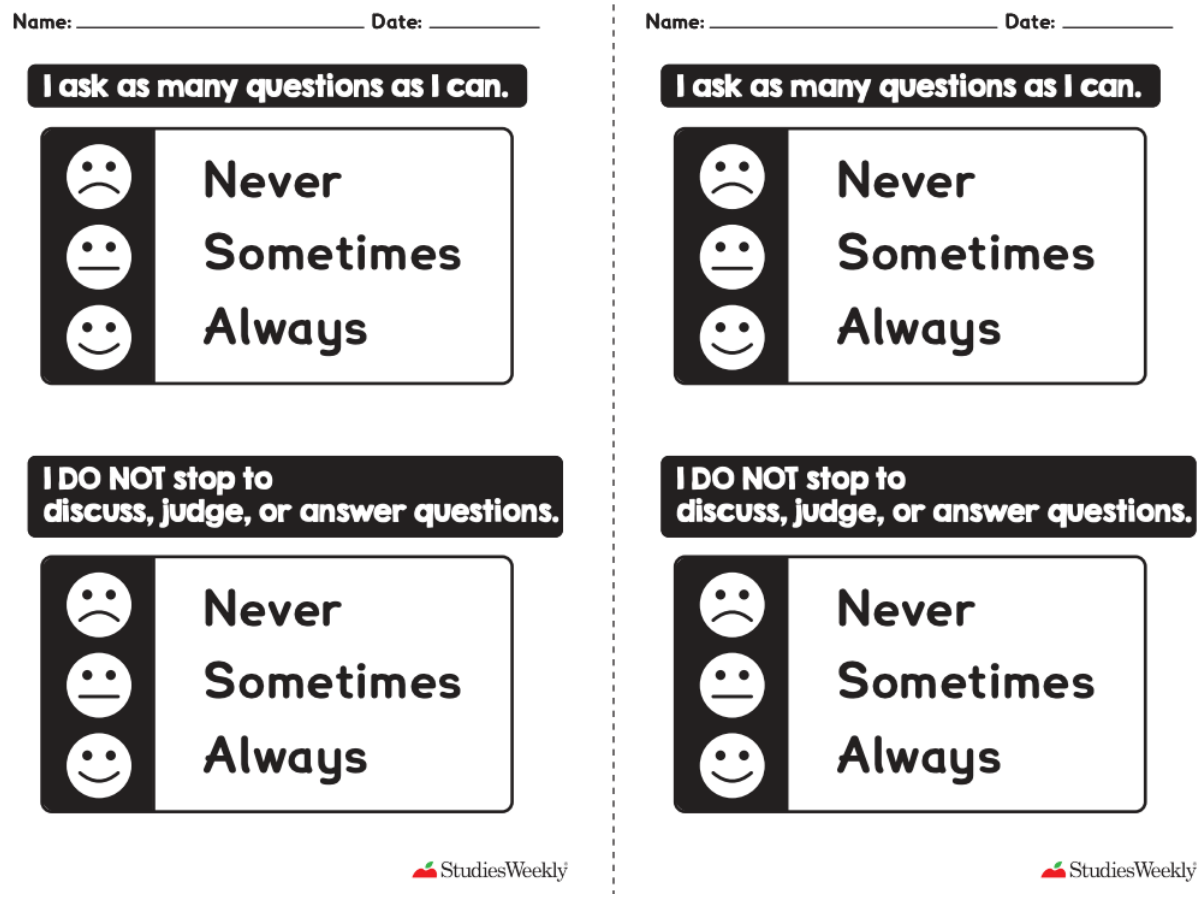
Publisher's description of this change if different from overall description.

Adding Questioning Self-Assessment printable that is needed for Activity 1

Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content



Description of the specific location and hyperlink to the exact location of the currently adopted content.

N/A - new resource

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the proposed updated content.

This resource will be found online in unit 19, Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2000

Publisher's rationale for this change if different from overall rationale.

Missing resource

Publisher's description of this change if different from overall description.

Adding Ant Farm: Teacher Instruction page for Activities 5 & 6

Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content

Second Grade: Ant Farm

My Research			
Activity Duration	**Activity Difficulty**	**Preparation Time**	**Preparation Effort**
10 minutes	Low	Low	Low

Instructions

Whole Group

1. Explain to students that they will be seeking evidence to support a claim about whether it is better for an animal to live alone or in a group.
2. Present students with the three animals and explain that they will be researching one of these animals to determine if it would survive better in a group or independently.
3. Post a sheet of anchor chart paper in a visible location.
    a. See the **below** for an example of what that should look like.
4. Give each student three sticky notes and have them write their initials on the front or back.
5. Have students discuss with a classmate whether they think each animal should be a group animal.
6. Have students place their sticky notes in the boxes that correspond with their hypothesis for each animal on the anchor chart.
7. Record how many people chose each hypothesis in the boxes of the anchor chart.

	In a Group	**Alone**
Mountain lions		
Prairie dogs		
Mule deer		

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 19, Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2000

Update to Content Not Reviewed by SRP

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding Research Animals image for Activity 8

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content


Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource is found online in unit 19, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2000

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 19, Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-

8dc1193cd594/publications/511/teacher-resources?unit_id=2000

Publisher's rationale for this change if different from overall rationale.

Replacing file with minor changes

Publisher's description of this change if different from overall description.

New file has a changed image, updated footer and a line separating the stories.

Screenshot of Currently Adopted Content

Name: **Date:**

Lion Read Aloud

Magilani means "clever one." She was named Magilani because she was smart and learned how to live by herself in the desert of northern Kenya. Magilani is one of about 50 lions that lives alone in this area. She only interacts with other lions to mate. Lions that live alone are much better at surviving among people. Human environments have begun to take over lots of lion habitats around the continent of Africa.

Image courtesy of Getty Images

Magilani has been a mom to many cubs. Instead of leaving her cubs with "babysitters" in a pride, Magilani takes her cubs with her on the hunt. She even taught her three-month-old cub to help take down an antelope! A big perk of living alone is that Magilani does not need to share any of the food she catches. Magilani will likely live to be about 16 years old.

Makena grew up in the Serengeti desert. As a part of a large pride, she grew up among her aunts, grandmother, cousins, and brothers and sisters. Her father comes around sometimes. However, she was raised mostly around the other female lions. From these lions, she has learned how to hunt. When Makena hunts, she works together with the other lionesses in the pride. Any prey that is killed is shared with the entire pride. When Makena's brothers grew up, they promptly left the pride in search of their own territories. Male lions compete with one another for the best territories with the largest prides. The primary job of a male lion is to protect his pride and mate. They only occasionally join in on the hunts.

Screenshot of Proposed Updated Content

Name: **Date:**

Lion Read-Aloud Stories

Magilani means "clever one." She was named Magilani because she was smart and learned how to live by herself in the desert of northern Kenya. Magilani is one of about 50 lions that live alone in this area. She only interacts with other lions to mate. Lions that live alone are much better at surviving among people. Human environments have begun to take over lots of lion habitats around the continent of Africa.

Magilani has been a mom to many cubs. Instead of leaving her cubs with "babysitters" in a pride, Magilani takes her cubs with her on the hunt. She even taught her three-month-old cub to help take down an antelope! A big perk of living alone is that Magilani does not need to share any of the food she catches. Magilani will likely live to be about 16 years old.

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Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

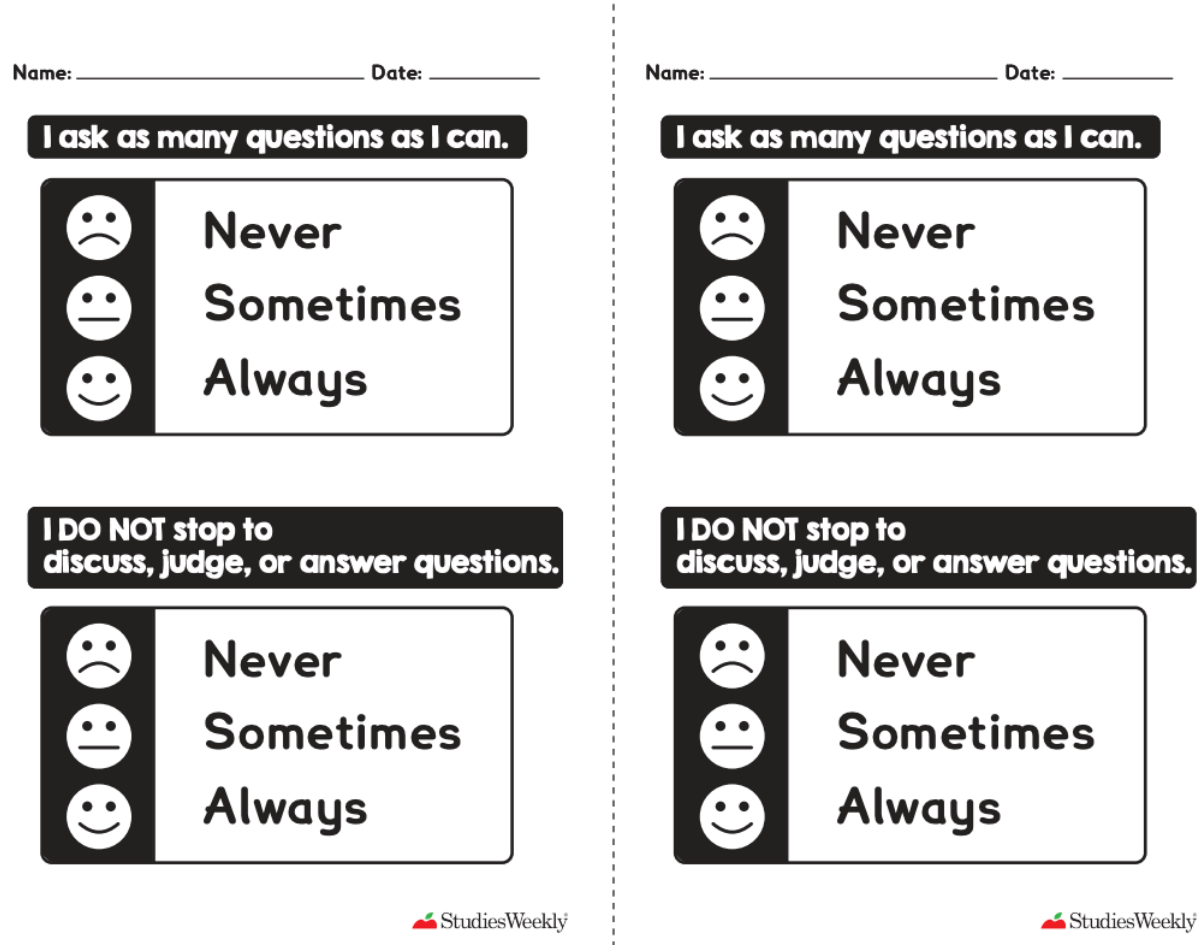
Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 20, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2009

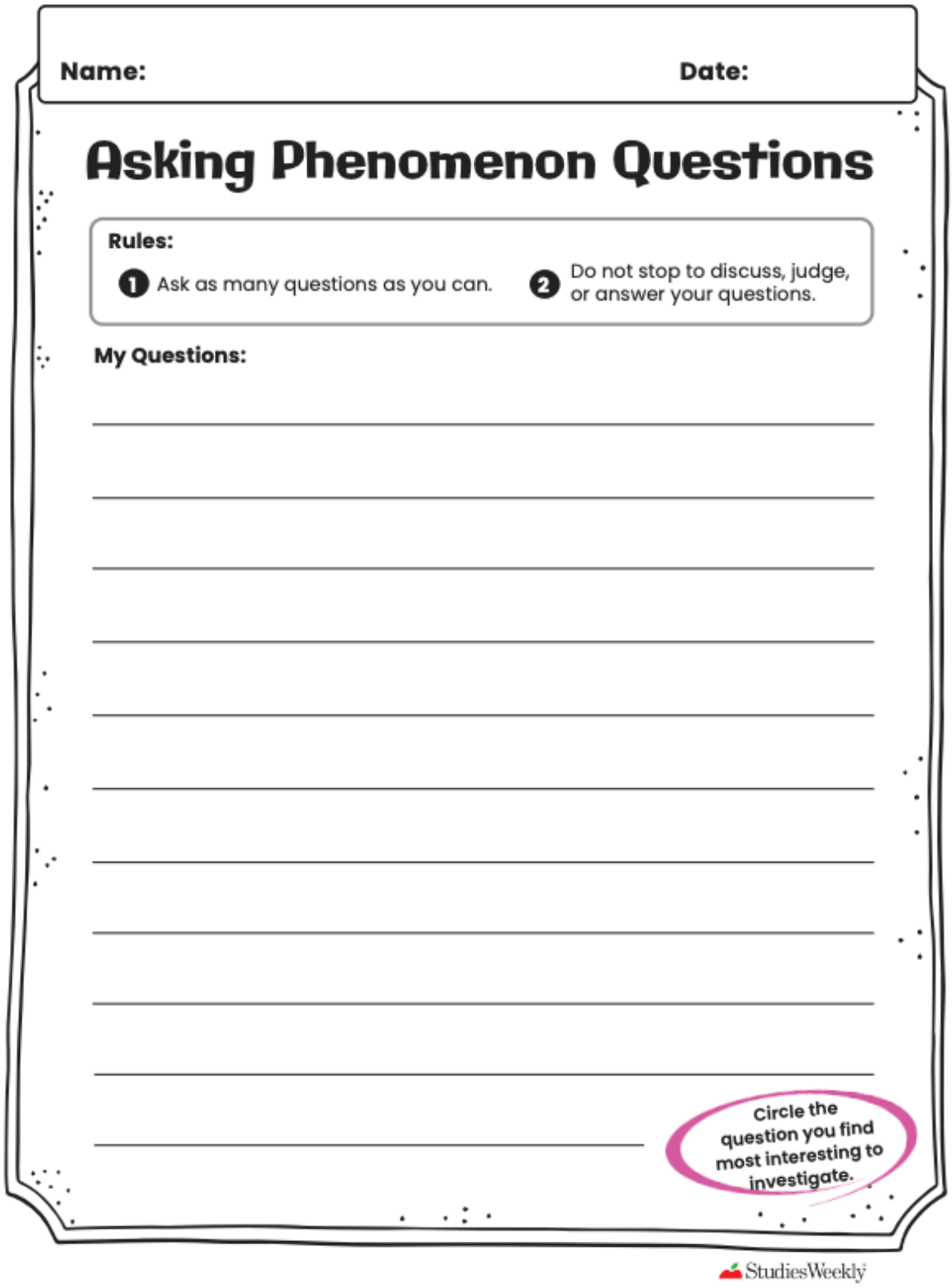
Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding Questioning Self-Assessment and Asking Phenomenon Questions printable needed for Activity 1

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content





Name: Date:

Asking Phenomenon Questions

Rules:

1. Ask as many questions as you can.
2. Do not stop to discuss, judge, or answer your questions.

My Questions:

Circle the question you find most interesting to investigate.

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content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 20, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2009

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding Frog and Butterfly Life Cycles Lower Lexile articles for Activities 2-9.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

TEXAS SCIENCE
Studies Weekly
FROG AND BUTTERFLY LIFE CYCLES

Activity 2: Green Tree Frogs

Did you know that frogs lay eggs? Unlike bird eggs, frog eggs are soft and clear. They have a black spot in the middle. This black spot will later turn into a frog! The clear part of the egg is like a clear jelly. It protects the frog. It allows the eggs to float. It also allows the eggs to stick together. Adult female green tree frogs lay about 400 eggs at a time. After about five days, the tiny black frog starts to change shape. Then, the eggs hatch.

Activity 3: Tadpoles

After frog eggs hatch, the tadpole stage begins. This stage lasts for eight to ten weeks. Tadpoles are usually about two inches in length. Tadpoles have a small egg-shaped body. They have a tail. Their tail helps them swim around in the water. In the tadpole stage, the tadpoles are busy swimming and growing.

Activity 4: Froglets

Once the tadpoles grow hind legs, they are called froglets. Froglets start to turn green. They soon grow front legs. These legs help the froglet move around even more. They can even go on land for short amounts of time. Froglets start off with long tails. As they grow, their tail gets shorter and shorter. The froglet also starts to form a frog-like face.

Activity 4: Adult Frogs

When the froglet's tail is completely gone, it becomes an adult frog. This happens when the froglet is about one year old. Adult frogs are able to live on land. They spend less time in the water. Adult female frogs can lay eggs in water to start the life cycle again. Green tree frogs have toes. They have a flat toe-pad. Their toes and toe-pad helps them climb really well. They climb to find food. They climb to stay safe. Green tree frogs usually live about two to five years.

TEXAS SCIENCE

Studies Weekly

FROG AND BUTTERFLY LIFE CYCLES

Activity 6: Giant Swallowtail Butterfly Eggs

Adult, female butterflies lay their eggs on the top of leaves. They usually only lay one egg on a leaf. These eggs are very small. They measure one millimeter. The eggs are a cream or brown color. They are coated in an orange liquid. The liquid helps them stick to the leaf. The egg stage lasts about four to ten days until the eggs hatch.

Activity 7: Caterpillars

The caterpillar stage starts after the eggs hatch. Giant swallowtail caterpillars are sometimes called "bird poop caterpillars." It is because of the way they look. This keeps them safe from other animals. No animal wants to eat that! They keep busy by eating. They also do a lot of growing. This stage lasts for about three to four weeks.

Activity 8: Chrysalis

A caterpillar forms a chrysalis after a few weeks. They form the chrysalis on something that they can hang from. That could be a fence or a plant. The caterpillar attaches itself to the spot with silk. This silk is like a spider's web. It sheds its old skin 10-20 days later. Inside, the wings form and grow. The body changes. It becomes brownish green. This color makes it look like part of the plant. That helps it to stay safe.

Activity 9: Adult Giant Swallowtail Butterflies

The butterfly becomes an adult. It wiggles itself out of its chrysalis. It leaves the chrysalis behind. It dries its wings. An adult giant swallowtail is the largest of all North American butterflies. Their wingspan is about 5-7 inches. They are dark brown. They have yellow markings. Their bodies are yellow. The adult females lay eggs. This begins the life cycle again. Giant swallowtail butterflies only live 6-14 days. They spend that time sipping nectar from flowers. They can also glide long distances with their big wings.

Images courtesy of the School of Ecology and Conservation, UAS Bangalore, India and Dr. Tarique Sani on Wikimedia

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 6, Teacher Resources, Student Support Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2005

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding a Falling Dominoes video that is referenced in Activity 9, Optional activity.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content
This is a video so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/Week%207%20W_music%2000000000.mp4

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 20, Teacher Resources
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2009

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding the Teacher Background Information Podcast to help prepare teachers to better understand the science concepts of the unit.

Screenshot of Currently Adopted Content
N/A

Update to Content Not Reviewed by SRP

Screenshot of Proposed Updated Content

This is an audio file so the content is the media provided.
https://cdn.studiesweekly.com/online/resources/pod_media/TX-02-SN-EN-V2-UPDATE_Unit_20_13D_Teacher_Background_Information_Podcast.mp3

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 11, Teacher Resources, Assessment
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1992

Publisher's rationale for this change if different from overall rationale.

Missing resource

Publisher's description of this change if different from overall description.

Adding the Unit Assessment and Answer Key for the unit.

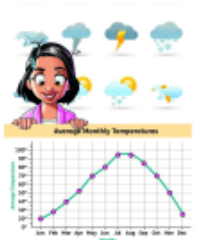
Screenshot of Currently Adopted Content

N/A

Screenshot of Proposed Updated Content

TEXAS SCIENCE — Unit Assessment Answer Keys

Second Grade: Wacky Weather

1.	Natalia graphed average monthly temperatures. What was the average temperature in May? a. 51° **b. 70°** c. 80°	
2.	Study the map of Texas. Which region has the least chance of experiencing hurricanes? a. Gulf Coastal Plains b. North Central Plains **c. Mountains and Basins**	
3.	Look at the image of a city. Which severe weather event is in the picture? **a. flood** b. hurricane c. tornado	
4.	True or **false**: Tornadoes normally form over the ocean.	
5.	Fill in the blank: Choose the word that best completes the sentence. A **meteorologist** studies and records the weather. Distractors: herpetologist; volcanologist	

Assessment Map:		1	2	3	4	5
SEP	**Science and Engineering Practices**					
	2B: Analyze Data	x	x	x		x
	Science Standard					
	2.10B	x				x
	2.10C		x	x	x	
RTC	**Recurring Themes and Concepts**					
	5A: Patterns		x		x	x
	Depth of Knowledge	2	2	1	1	1
Item Activity # *The activity associated with this item if needed for remediation or review.*		4	6	7	8	5

Name _____ Date _____

Texas Science Studies Weekly: Second Grade

Wacky Weather

Unit Assessment

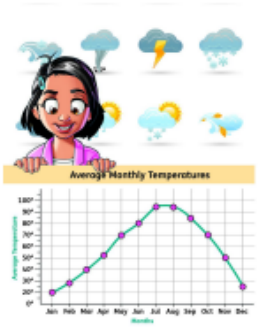
1. Natalia graphed average monthly temperatures.

   What was the average temperature in May?

   A. 51°F

   B. 70°F

   C. 80°F

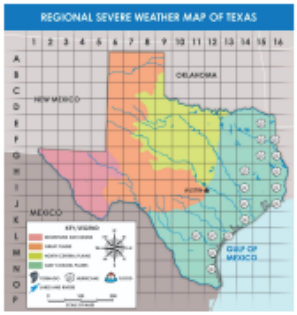


2. Study the map of Texas. Which region has the least chance of experiencing hurricanes?

   A. Gulf Coastal Plains

   B. North Central Plains

   C. Mountains and Basins



3. Look at the image of a city. Which severe weather event is in the picture?

   a. flood

   b. hurricane

   c. tornado

4. Tornadoes normally form over the ocean.

   TRUE FALSE

5. Choose the word that best completes the sentence.

   A _____ studies and records the weather.

Update to Content Not Reviewed by SRP

Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource can be found online in Unit 2, Teacher Resources, Unit Printables
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=1993

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Publisher's rationale for this change if different from overall rationale.
Incorrect resource.

Publisher's description of this change if different from overall description.
Replacing the existing Jiggly Gelatin: Lower Lexile Measure Article with the correct version.

Screenshot of Currently Adopted Content

Activity 3: Liquids and Solids

Directions: Answer the question on the lines provided.

Why do you think the gelatin can jiggle now?

_____

_____

_____

The world is made up of many things. Some of those things are firm. They have their own shape. Some of those things flow. Some things can take the shape of what they're placed in. Not all solids stay solid. Not all liquids stay liquid. Think about water. Now, think about ice. Ice is water that has become solid!

Directions: Cut out the images from the "Liquids and Solids" printable. Sort each image into the correct category.

LIQUIDS	SOLIDS

Screenshot of Proposed Updated Content

Activity 3: Liquids and Solids

The world is made up of many things. Some things are firm. They have their own shapes. Some things flow. They can take on the shapes of anything they're placed in. Not all solid things stay solid. Not all liquid things stay liquid. Think about water. Now, think about ice. Ice is just water that has become solid!

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated

content.
This resource will be found online at Publication level for the grade.
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources

Publisher's rationale for this change if different from overall rationale.

These printables provide a summary of the materials needed for the hands-on activities, including those provided in the available materials kits.

Publisher's description of this change if different from overall description.

The materials lists consist of:

1. A comprehensive materials list. This list identifies all the materials needed for the activities by unit including teacher supplied materials.
2. A kit materials list organized alphabetically. This list includes quantities, materials information and identified materials available in a refill kit.
3. A kit materials lists organized by unit. This list includes quantities, materials information and the associated activity.

Screenshot of Currently Adopted Content

N/A - new resource

Screenshot of Proposed Updated Content

Comprehensive Materials List

TEXAS SCIENCE **Materials List**

Texas Second Grade

(* indicates items supplied by the teacher and not included in the kit)

Unit 1 Week 1	• box coverings (e.g., lid, sheet)* • boxes* • plastic building blocks (six colors)	• plastic cups • scissors* • stapler*
Unit 1 Week 2	• coloring supplies* • glue sticks*	• map or globe* • scissors
Unit 1 Week 3	• tanchor chart paper* • baking soda • beaker • construction paper, black	• paper bowls • scissors* • thermometers, instant-read • vinegar*
Unit 1 Week 4	• cardboard/cereal boxes* • cardstock • colored pencils* • duct tape • glue sticks* • manila folders • metal spring hooks	• plastic recyclables* • resealable plastic bags • ribbon • scissors* • tape • yarn
Unit 2 Week 5	• anchor chart paper* • beakers • electric fans • flexible materials (bendy straws, pipe cleaners, ribbon, string, yarn, etc) • gelatin packets • heat-safe dishes • hot plates	• inflexible materials (craft sticks, pencils*, plastic blocks, wooden blocks*, etc) • markers* • safety glasses* • spoons • sticky notes • student thermometers • trays • water*
Unit 3 Week 6	• beakers • blocks of wax • crayons* • electric fans • food coloring • fruit* • fruit models • fruit molds • goggles*	• heat-resistant gloves* • hot plates • markers* • plastic knives • sandpaper • science notebooks* • sticky notes • trays

Unit 4 Week 7	• chocolate fudge or peanut butter* • copy or construction paper* • jelly beans* • paper plates, small • pretzel sticks* • resealable plastic bags, gallon	• resealable plastic bags, sandwich • spoons • tangram pieces* • tape • various classroom or schoolyard materials*
Unit 5 Week 8	• anchor chart paper* • aprons/lab coats* • clay • drums • drumsticks* • golf balls • markers* • measuring tools (rulers*, yardsticks*, meter sticks*, or measuring tape)	• plastic sheet or covering • ramps* • resealable plastic bags • safety goggles* • sidewalk chalk • small stickers • spinning tops • sticky notes • toy cars • trays
Unit 6 Week 9-10	• anchor chart paper* • balloons • colored pencils* • cups (3 oz and 9 oz) • dominoes • dried beans • duct tape • index cards • large books* • laundry basket* • masking tape • marbles	• marker* • paper* • pipe cleaners • rulers* • straws • tape • timers • toilet paper rolls* • toy cars • yarn • water*
Unit 7 Week 11	• anchor chart paper* • bells • books* • construction paper* • cotton balls • drum • glass of water* • paper* • paper clips	• paper cups • pencils* • plastic ruler* • plastic wrap • rubber bands • salt • straws • tissues* • tuning fork
Unit 8 Week 12-13	• anchor chart paper* • beans • buttons • cardboard boxes* • cardboard tubes* • clipboards*	• metal pots and pans* • plastic containers • rice • rubber bands • tin cans* • wooden spoons

Unit 9 Week 15-16	• binoculars • flashlights • ice* • magnifying glasses	• mirrors • telescope • thermometers, digital
Unit 10 Week 16-17	• aluminum foil • book* • disposable baking pan • duct tape • glue sticks* • goggles* • gravel • marbles • measuring tape	• plastic cups (3 oz and 9 oz) • pin or needle* • potting soil • ruler* • sand • scissors* • straws • trays • water*
Unit 11 Week 18-19	• anchor chart paper* • canning jars • cardboard houses* • cardboard, sturdy* • clear bowl, large • cornstarch • food coloring • demonstration thermometer • gravel • liquid soap*	• model trees • prepared stream table (from Unit 10) • newspaper* • rain gauge • sand • student thermometers • vinegar* • wooden spoon • water*
Unit 12 Week 20	• anchor chart paper* • apple* • aluminum foil • beef jerky* • bottled water* • cookies* • firewood*	• magnets* • paper plates • pebbles • plastic wrap • superstore ads*
Unit 13 Week 21	• anchor chart paper* • markers*	• scale • trash collection*
Unit 14 Week 22	• coloring supplies* • glue sticks*	• coloring supplies* • glue sticks*
Unit 15 Week 23	• anchor chart paper* • glue sticks*	• scissors* • writing/coloring tools*
Unit 16 Week 24-25	• anchor chart paper* • bottle caps* • construction paper* • copy paper* • cotton balls • craft sticks • fans • feathers • flexible straws • glitter	• glue • marker* • paper clips • pipe cleaners • plastic soda bottles with caps* • pom-poms • scissors* • tape • tissue paper

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Unit 17 Week 26	• anchor chart paper*	• marker*
Unit 18 Week 27-28	• googly eyes • highlighters* • paper plates	• small bits of paper* • water* • wire piece
Unit 19 Week 29-30	• anchor chart paper* • blindfolds* • candy* • earplugs • marbles	• resealable plastic bags • sticky notes • timers • toys
Unit 20 Week 31-32	• clay • craft or art materials* • glue sticks*	• recycled materials* • scissors*

Alphabetized Materials List

Alphabetized Texas Kit Materials List
Second Grade

Material	Unit	Quantity Needed	Details	Available in Refill Kit
aluminum foil	10, 12	1	roll, 1x25'	x
baking pan	10	3	foil, 12.75x10.38x1.5"	
baking soda	1.3	1	1 lb	x
balloons	6	10	9", assorted colors	x
beaker	1.3, 2, 3	1	6/pk, 600mL, glass	
bell	7	6	2.75" cowbell	
binoculars	9	1	mini, 8x21 magnification	
buttons	8	1	lb, assorted	x
cardstock	1.4	12	sheets, 8.5x11	x
clay	5, 20	4	lbs, 4 colors	x
clear bowl	11	1	plastic, round, 10"	
colored dot stickers	5	1	package, dot label, 4 assorted colors	x
construction paper, black	1.3	1	50/pk	x
cornstarch	11	1	16 oz	x
cotton balls	7, 16	1	300/pk	x
craft sticks	2, 16	1	50/pk	
digital scale	13	1	compact 5000g	
dominos	6	1	set of 28	
dried beans	6, 8	3	1lb packages	x
drums	5	1	12/pk, spin drum	

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duct tape	1.4, 6, 10	1	roll, 2" x 10 yds	x
ear plugs	19	6	pairs, disposable	x
fan	2, 16	6	mini, handheld, 4", batteries included	
feathers	16	1	50/pk, assorted colors	x
felt squares	16	3	9x12', green	x
flashlights	9	6	plastic, D-cell, batteries included	
food coloring	3, 11	1	4 pk, gel	x
fruit models	3	1	bushel of play fruit: banana, apple, pear, plum, orange, lemon, strawberry, peach, grapes	
fruit molds	3	1	silicone mold: orange, watermelon, grape, apple, strawberry, pear, pineapple, lemon	
gelatin packets	2	13	yellow, 4.2oz	x
glitter	16	4	0.75 oz, red and silver	x
glue, liquid	16	6	4 oz bottles	x
golf balls	5	12		
gravel	10, 11, 12	2	5lbs, small, 3/16"	
hot plate	2, 3	1	single burner, solid top, 1000W	
magnifying glasses	9	1	6pk, dual lens - 3X/6X	
manila folders	1.4	12		x
marbles	6, 10, 19	1	50/pk, 5/8"	
masking tape	6	1	roll	x
metal spring hooks	1.4	1	12/pk, carabiners 3.25"	
mirrors	9	6	4x6" plastic	

model trees	11	3	1.5-3"	
paper bowls	1.3	6	12 oz	x
paper clips	7, 16	1	100/pk, #1	
paper cup	7	12	12 oz	x
paper plates	12	6	9 in	
paper plates, small	4	24	6 in	x
pipe cleaners	2, 6, 16	1	100/pk	
plastic blocks	1.1, 2	1	300/pk, 2x4, (50 each: blue, light blue, green, orange, red, yellow)	
plastic containers, small	8	6	bowl, deli, 16 oz	
plastic cup, small	6, 10	16	clear, 3.5 oz	x
plastic cups	1.1, 6, 7, 10	3	50/pk, clear, 9oz	
plastic knives	3	6		x
plastic spoons	2, 4	2	24/pk	x
plastic tarp	5	1	12x12ft	
plastic wrap	7, 12	1	roll, 100ft	x
pom poms	6, 16	2	100pk, assorted colors	
rain gauge	11	1	w/ cm markings	
resealable plastic bags, gallon size	4	24		
resealable plastic bags, sandwich	1.4, 4, 5, 19	2	50/pk	x
ribbon	1.4, 2	1	roll, 3/4" x 28 ft	x
rice	8	1	1lb bag	x
rubber bands	7, 8	1	4 oz package, assorted	x
salt	7	1	26.4 oz	x

sand	10, 11	3	3 kg, fine sand	x
sandpaper	3	6	various grit numbers	
sidewalk chalk	5	4	set of 3	x
soil	10	2	8 lbs, potting soil	x
spinning tops	5	1	12/pk, plastic, 1.5"	
sticky notes	2, 3, 5, 19	2	pads, 3x3, canary yellow	x
stopwatch	6, 19	3	digital	
straws	6, 7, 10	1	250/pk, unwrapped, clear	x
straws, flexible	16	1	50/pk, flexible, wrapped	x
string	2, 6, 7	1	spool, cotton, 420ft	x
tape	1.4, 6	6	rolls, transparent, 3/4" w/dispenser	x
telescope	9	1	Vega 360	
thermometer	2, 11	2	6/pk, low range plastic	
thermometer, demonstration	11	1	indoor/outdoor	
thermometers, digital	1.3, 9	6	digital	
tissue paper	16	1	20/pk, assorted colors	x
toy cars	5, 6	12	non-pull, 3"	
trays	2, 3, 5, 10	6	10x14"	
tuning fork	7	6	512 Hz	
wax blocks	3	2	1 lb, paraffin	x
wire	18	1	24-gauge, floral wire, 110ft	
wooden spoons	8, 11	6	12-inch	
yarn	1.4, 2, 6	2	skeins, 60 yd, blue	x

Unit Materials List
This file is 6 pages so the link is provided.
https://cdn.studiesweekly.com/online/resources/printables/14330/TX-02%20Texas%20Kit%20Materials%20Lists%20by%20UnitS.pdf

TEXAS SCIENCE

Texas Kit Materials Lists by Unit
Second Grade

Material	Unit	Activity	Quantity Needed	Details
plastic building blocks	1.1	3	240	6 prepared structures per group + 6 of each color per group
plastic cups		4	120	10 per pair
baking soda	1.3	1	1	
beaker			1	
paper bowls		3	6	1 per group
construction paper, black		4	6	1 per group
thermometers, digital			6	1 per group
cardstock	1.4	3	as needed	
duct tape			as needed	
manila folders			as needed	
metal spring hooks			as needed	
resealable plastic bags			as needed	
ribbon			as needed	
tape			as needed	
yarn			as needed	
beakers	2	1, 2, 4	6	
gelatin packets			13	2 per group + 1
plastic spoon			15	2 per group + 3
craft sticks		1, 4	as needed	
hot plate			1	
pipe cleaners			as needed	
ribbon			as needed	

StudiesWeekly

Description of the specific location and hyperlink to the exact location of the currently adopted content.
N/A - new resource

Description of the specific location and hyperlink to the exact location of the proposed updated content.
This resource will be found online in unit 8, Teacher Resources, Assessment
https://online.studiesweekly.com/teacher/classrooms/18118e32-addf-40f5-b9d1-8dc1193cd594/publications/511/teacher-resources?unit_id=2002

Publisher's rationale for this change if different from overall rationale.
Missing resource

Publisher's description of this change if different from overall description.
Adding the Unit Assessment and Answer Key for the unit.

Screenshot of Currently Adopted Content
N/A

Screenshot of Proposed Updated Content

TEXAS SCIENCE

Unit Assessment Answer Keys

Second Grade: Mrs. Garcia's Recess Dilemma

1.	Which of the following does not use sound to communicate? a. drums b. radio **c. smoke**
2.	True or **false**: Messengers cannot communicate well.
3.	Where should a loud communication device be tested? a. on the bus b. in the classroom **c. on the playground**
4.	**True** or false: A signal must be in a code others can interpret.
5.	Fill in the blank: choose the word that best completes the sentence. **Radios** can only communicate one way. Distractors: messengers; telephones

Name_____ Date_____

Texas Science Studies Weekly: Fifth Grade

Mrs. Garcia's Recess Dilemma

Unit Assessment

1. Which of the following does **not** use sound to communicate?
   A. drums
   B. radio
   C. smoke

2. True or false: Messengers cannot communicate well.

3. Where should a loud communication device be tested?
   A. on the bus
   B. in the classroom
   C. on the playground

4. True or false: A signal must be in a code others can interpret.

5. Fill in the blank: choose the word that best completes the sentence.
   _____ can only communicate one way.
   A. messengers
   B. radios
   C. telephones

Description of the specific location and hyperlink to the exact location of the currently adopted content.
This resource is found online by selecting a grade, then in the Table of Contents, clicking on the blue Teacher icon to the right of the Unit and selecting Teacher Edition PDF.
Unit1 Week 1: https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%201.pdf
Unit 1 Week 2: https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%202.pdf

Unit 1 Week 3: https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%203.pdf
Unit 1 Week 4: https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%204.pdf
Unit2:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1993/Lesson%20Plan%20Unit%202.pdf
Unit3:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2001/Lesson%20Plan%20Unit%203.pdf
Unit4:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1994/Lesson%20Plan%20Unit%204.pdf
Unit5:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2004/Lesson%20Plan%20Unit%205.pdf
Unit6:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2005/Lesson%20Plan%20Unit%206.pdf
Unit7:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1996/Lesson%20Plan%20Unit%207.pdf
Unit8:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2002/Lesson%20Plan%20Unit%208.pdf
Unit9:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1990/Lesson%20Plan%20Unit%209.pdf
Unit10:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2006/Lesson%20Plan%20Unit%2010.pdf
Unit11:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1992/Lesson%20Plan%20Unit%2011.pdf
Unit12:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1998/Lesson%20Plan%20Unit%2012.pdf
Unit13:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1995/Lesson%20Plan%20Unit%2013.pdf
Unit14:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2007/Lesson%20Plan%20Unit%2014.pdf
Unit15:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1999/Lesson%20Plan%20Unit%2015.pdf
Unit16:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2003/Lesson%20Plan%20Unit%2016.pdf
Unit17:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1997/Lesson%20Plan%20Unit%2017.pdf
Unit18:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2008/Lesson%20Plan%20Unit%2018.pdf
Unit19:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2000/Lesson%20Plan%20Unit%2019.pdf
Unit20:https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2009/Lesson%20Plan%20Unit%2020.pdf

Description of the specific location and hyperlink to the exact location of the proposed updated content.
Same as above

Update to Content Not Reviewed by SRP

Publisher's rationale for this change if different from overall rationale.

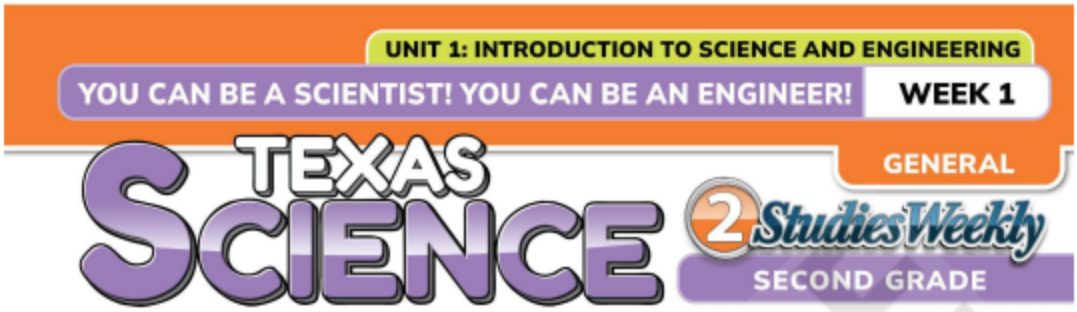
When resources are approved, they need to be included in an updated Teacher Edition

Publisher's description of this change if different from overall description.

Resources that are being requested for approval are now documented in the updated Teacher Editions. These include references to the Unit Summary and Overview Videos, Lesson Slides, andd other printables that extend student learning. None of the new references in the Teacher Edition are for TEKS-bearing materials.

Screenshot of Currently Adopted Content

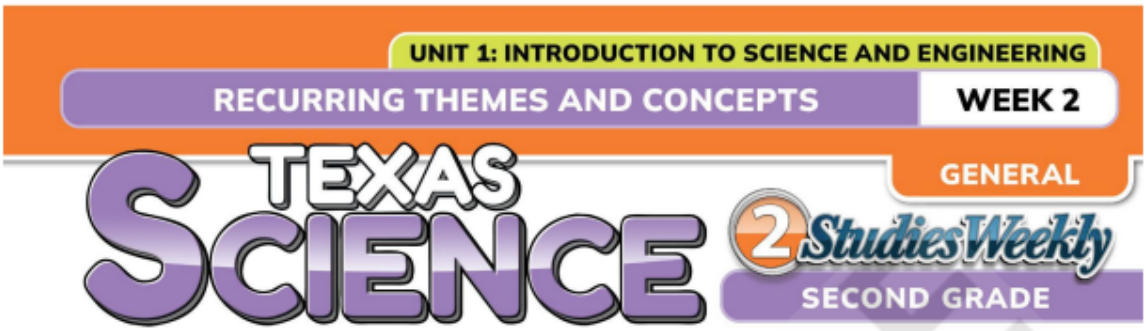
Unit 1 Week 1:
https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%201.pdf



Unit Objectives
Students will be able to think like scientists and engineers, describe how to use tools safely, work in teams, identify how to have a growth mindset, and describe how scientists and engineers help others.

Activity Summary		Lesson Time	5E	Page
Week 1: You Can Be a Scientist! You Can Be an Engineer!		3 Hours 45 Minutes Total		
Day 1 45 min.	1. Who Are Scientists and Engineers?	45 minutes	Engage	1.6
Day 2 45 min.	2. Tools and Safety	45 minutes	Explore	1.8
Day 3 45 min.	3. Teamwork	45 minutes	Explore	1.10
Day 4 45 min.	4. Growth Mindset	45 minutes	Explore	1.12
Day 5 45 min.	5. Making Discoveries and Innovations	45 minutes	Explore	1.14

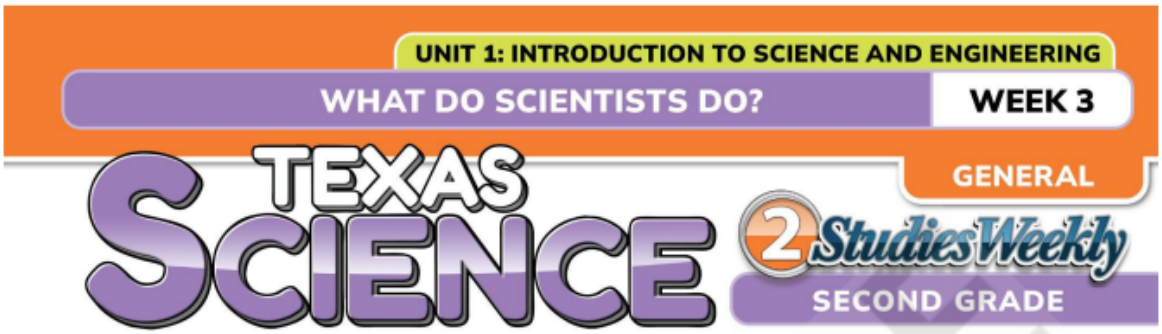
Unit 1 Week 2:
https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%202.pdf



Unit Objectives
Students will be able to describe phenomena through the lenses of different recurring themes and concepts.

Activity Summary		Lesson Time	5E	Page
Week 2: Recurring Themes and Concepts		3 Hours 45 Minutes Total		
Day 1 45 min.	1. Part A: Through the Lens of Recurring Themes and Concepts Part B: Patterns	45 minutes	Engage	1.22
Day 2 45 min.	2. Part A: Cause and Effect Part B: Systems and System Models	45 minutes	Explore	1.24
Day 3 45 min.	3. Structure and Function	45 minutes	Explore	1.27
Day 4 45 min.	4. Part A: Energy and Matter Part B: Stability and Change	45 minutes	Explore	1.29
Day 5 45 min.	5. Scale, Proportion, and Quantity	45 minutes	Explore	1.31

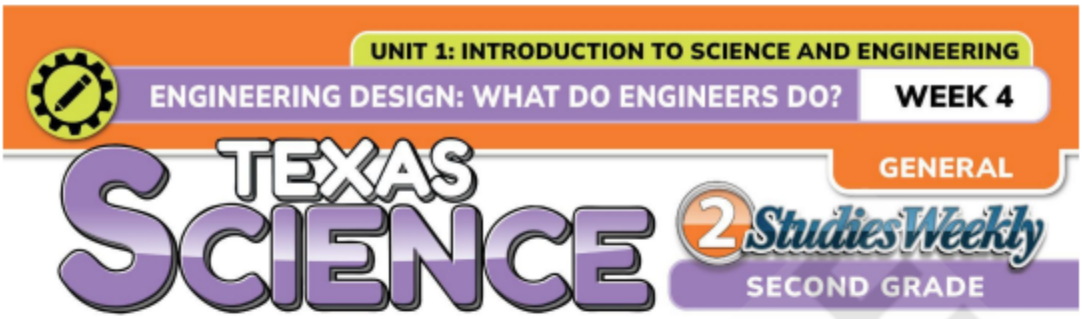
Unit 1 Week 3:
https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%203.pdf



Unit Objectives
Students will be able to identify and use scientific and engineering practices.

Activity Summary		Lesson Time	5E	Page
Week 3: What Do Scientists Do?		3 Hours 45 Minutes Total		
Day 1 45 min.	1. Scientific and Engineering Practices	45 minutes	Engage	1.38
Day 2 45 min.	2. Plan and Conduct Investigations	45 minutes	Explore	1.40
Day 3 45 min.	3. Develop and Use Models	45 minutes	Explore	1.43
Day 4 45 min.	4. Collect and Analyze Data	45 minutes	Explore	1.45
Day 5 45 min.	5. Develop Explanations	45 minutes	Explore	1.47

Unit 1 Week 4:
https://cdn.studiesweekly.com/online/lesson_plans/TX-02-SN-EN-V2-UPDATE/Lesson%20Plan%20Week%204.pdf



Engineering Design Scenario	Natalia loves art. She keeps forgetting to bring her fancy drawing pencils to school. She doesn't want to put them in her backpack because they might break, but she keeps leaving them on the table.

Unit Objectives

Students will be able to identify and describe the steps of the engineering design process by defining a problem, designing and planning a solution, creating a prototype, testing a prototype, and identifying improvements.

Activity Summary		Lesson Time	EDP (Engineering Design Process)	Page
Week 4: Engineering Design: What Do Engineers Do?		**3 Hours 45 Minutes Total**		
Day 1 45 min.	**1. The Engineering Design Process and Practices**	45 minutes	Define	1.55
Day 2 45 min.	**2. Ideate and Plan**	45 minutes	Develop	1.58
Day 3 45 min.	**3. Create**	45 minutes	Develop	1.61
Day 4 45 min.	**4. Test and Improve**	45 minutes	Optimize	1.63
Day 5 45 min.	**5. Communicate**	45 minutes	Optimize	1.66

Unit2:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1993/Lesson%20Plan%20Unit%202.pdf

Science Standard 2.6A	Classify matter by observable physical properties, including texture, flexibility, and relative temperature, and identify whether a material is a solid or liquid.

Phenomenon	Gelatin doesn't look and feel the same all the time.

Unit Objectives	
Students will be able to ask questions based on observations of phenomena to identify and use patterns to classify matter by observable physical properties.	
SEP	**RTC**
2.1A: Ask Questions Ask questions based on observations or information from text, phenomena, models, or investigations.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit3:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2001/Lesson%20Plan%20Unit%203.pdf

Science Standard 2.6B	Conduct a descriptive investigation to explain how physical properties can be changed through processes such as cutting, folding, sanding, melting, or freezing.

Engineering Design Scenario	It can be hard to tell a wax model from the real thing.

Unit Objectives	
Students will be able to conduct simple descriptive investigations and use engineering practices to identify properties of matter and how they can change.	
SEP	**RTC**
2.1B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems.	**2.5E: Energy and Matter** Identify forms of energy and properties of matter.

Unit4:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1994/Lesson%20Plan%20Unit%204.pdf

Science Standard 2.6C	Demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties.

Phenomenon	A northern mockingbird's nest can be made of more than just leaves and twigs.

Unit Objectives

Students will be able to communicate explanations that demonstrate that small units can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties.

SEP	RTC
2.3B: Communicate Explanations Communicate explanations and solutions individually and collaboratively in a variety of settings and formats.	**2.5E: Energy and Matter** Identify forms of energy and properties of matter.

Unit5:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2004/Lesson%20Plan%20Unit%205.pdf

Science Standard 2.7A	Explain how objects push on each other and may change shape when they touch or collide.

Phenomenon	A golf ball changes shape when it is hit by a golf club.

Unit Objectives

Students will be able to plan and conduct investigations to explain how objects push on each other and may change shape when they touch or collide.

SEP	RTC
1B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems.	**5G: Stability and Change** Describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same.

Unit6:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2005/Lesson%20Plan%20Unit%206.pdf

Science Standard 2.7B	Plan and conduct a descriptive investigation to demonstrate how the strength of a push and pull changes an object's motion.

Phenomenon	Gina can't get Ms. Johnson to move on the swing, but Ms. Garcia can.

Unit Objectives	
Students will be able to plan and conduct a descriptive investigation to demonstrate how the strength of a push and pull changes an object's motion.	
SEP	**RTC**
2B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations.	**5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Update to Content Not Reviewed by SRP

Unit7:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1996/Lesson%20Plan%20Unit%207.pdf

Science Standards	**2.8A:** Demonstrate and explain that sound is made by vibrating matter and that vibrations can be caused by a variety of means, including sound.
	2.8B: Explain how different levels of sound are used in everyday life such as a whisper in a classroom or a fire alarm.

Phenomenon	A string and a cup can make an interesting sound sometimes.

Unit Objective	
Students will be able to demonstrate and explain sound's vibrations and levels caused by a variety of means.	
SEP	**RTC**
2.3B: Communicate Explanations Communicate explanations individually and collaboratively in a variety of settings and formats.	**2.5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Unit8:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2002/Lesson%20Plan%20Unit%208.pdf

Science Standard 2.8C	Design and build a device using tools and materials that uses sound to solve the problem of communicating over a distance.

Engineering Design Scenario	Mrs. Garcia's second grade class loves recess. Sometimes Mrs. Garcia needs to communicate with her class for different reasons. The students are busy playing and cannot see or hear her from a distance.

Unit Objectives	
Students will be able to design and build a device using tools and materials that uses sound to solve the problem of communicating over a distance.	
SEP	**RTC**
2.1B: Design Solutions Use engineering practices to design solutions to problems.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit9:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1990/Lesson%20Plan%20Unit%209.pdf

Science Standards	**2.9A:** Describe the sun as a star that provides light and heat and explain that the moon reflects the sun's light.
	2.9B: Observe objects in the sky using tools, such as a telescope, and compare how objects in the sky are more visible and can appear different with a tool than with an unaided eye.

Phenomenon	The world around us is warmer and brighter in the day than at night

Unit Objectives	
Students will be able to develop and use models to describe the sun as a star that provides light and heat. Students will be able to use tools, such as a telescope, to observe and explain that the moon reflects the sun's light.	
SEP	**RTC**
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Update to Content Not Reviewed by SRP

Unit10:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2006/Lesson%20Plan%20Unit%2010.pdf

Science Standard 2.10A	Investigate and describe how wind and water move soil and rock particles across the Earth's surface, such as wind blowing sand into dunes on a beach or a river carrying rocks as it flows.

Phenomenon	Sandcastles at the beach can get knocked over without people touching them.

Unit Objectives

Students will be able to investigate and describe how wind and water move soil and rock particles across the Earth's surface.

SEP	RTC
2.1B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems.	**2.5G: Stability and Change** Describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same.

Unit11:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1992/Lesson%20Plan%20Unit%2011.pdf

Science Standards	**2.10B:** Measure, record, and graph weather information, including temperature and precipitation.
	2.10C: Investigate different types of severe weather events such as a hurricane, tornado, or flood and explain that some events are more likely than others in a given region.

Phenomenon	Alana, Gina, and Cameron observe the windy, rainy, and cold weather outside, and each think a different weather event is happening: a tornado, a hurricane, and a regular rainy day.

Unit Objectives	
Students will be able to collect and organize weather data, including temperature, precipitation, and severe weather events (hurricane, tornado, and flood), to identify patterns that explain some events are more likely than others in a given region.	
SEP	**RTC**
2.2B: Analyze Data Analyze data by identifying significant features and patterns.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit12:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1998/Lesson%20Plan%20Unit%2012.pdf

Science Standard 2.11A	Distinguish between natural and manmade resources.

Phenomenon	Jackson goes to the superstore with his dad. His dad sorts the items into two bags. Jackson wonders why he sorted them that way and if there is another way to sort the items.

Unit Objectives	
Students will be able to analyze data by identifying significant patterns in order to distinguish between natural and human-made resources.	
SEP	**RTC**
2.2B: Analyze Data Analyze data by identifying significant features and patterns.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit13:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1995/Lesson%20Plan%20Unit%2013.pdf

Science Standard 2.11B	Describe how human impact can be limited by making choices to conserve and properly dispose of materials, such as reducing use of, reusing, or recycling paper, plastic, and metal.

Phenomenon	In 2021, Texans threw away an average of 7.09 pounds of trash per person a day, adding over 38 million tons of trash to Texas landfills in a year.

Unit Objectives

Students will be able to communicate explanations to describe how human impact can be limited by making choices to converse and properly dispose of materials.

SEP	RTC
2.3B: Communicate Explanations and Solutions Communicate explanations and solutions individually and collaboratively in a variety of settings and formats.	**2.5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Update to Content Not Reviewed by SRP

Unit14:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2007/Lesson%20Plan%20Unit%2014.pdf

Science Standard 2.12A	Describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem.

Phenomenon	Tide pools are underwater for part of the day, then shallow puddles for the rest of the day.

Unit Objectives	
Students will be able to identify and describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem.	
SEP	**RTC**
2.2B: Analyze Data Analyze data by identifying significant features and patterns.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Unit15:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1999/Lesson%20Plan%20Unit%2015.pdf

Science Standard 2.12B	Create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things.

Phenomenon	Many animals in Texas eat wild berry plants, while only a few animals eat javelinas.

Unit Objectives

Students will be able to create and describe food chain models to identify producers and consumers and demonstrate how animals depend on other living things in an ecosystem.

SEP	RTC
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Unit16:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2003/Lesson%20Plan%20Unit%2016.pdf

Science Standard 2.12C	Explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around.

Engineering Design Scenario	Jackson wants to grow a dandelion garden in his yard but the seeds keep ending up on his father's lawn. Jackson decides to plant his new dandelions in a greenhouse he made from a bottle. He notices that no new dandelions have grown.

Unit Objectives

Students will be able to develop and use models to describe the relationship between the structure of plant parts and its function to explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around.

SEP	RTC
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Unit17:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/1997/Lesson%20Plan%20Unit%2017.pdf

Science Standard 2.13A	Identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival.

Phenomenon	Texas paintbrush plants and Southern sugar maple trees look different but they both get what they need to grow in East Texas.

Unit Objectives	
Students will be able to identify the parts of a plant and compare how those parts help different plants meet their basic needs for survival.	
SEP	**RTC**
1F: Collect and Organize Data Record and organize data using pictures, numbers, words, symbols, and simple graphs.	**5F: Structure and Function** Describe the relationship between structure and function of objects, organisms, and systems.

Unit18:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2008/Lesson%20Plan%20Unit%2018.pdf

Science Standard 2.13B	Record and compare how the structures and behaviors of animals help them find and take in food, water, and air.

Phenomenon	Raccoons put their hands in water before they eat.

Unit Objectives

Students will be able to record, compare, and organize their data about how the structures and behaviors of animals help them find and take in food, water, and air.

SEP	RTC
2.1F: Collect and Organize Data Record and organize data using pictures, numbers, words, symbols, and simple graphs.	**2.5F: Structure and Function** Describe the relationship between structure and function of objects, organisms, and systems.

Unit19:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2000/Lesson%20Plan%20Unit%2019.pdf

Science Standard 2.13C	Record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes.

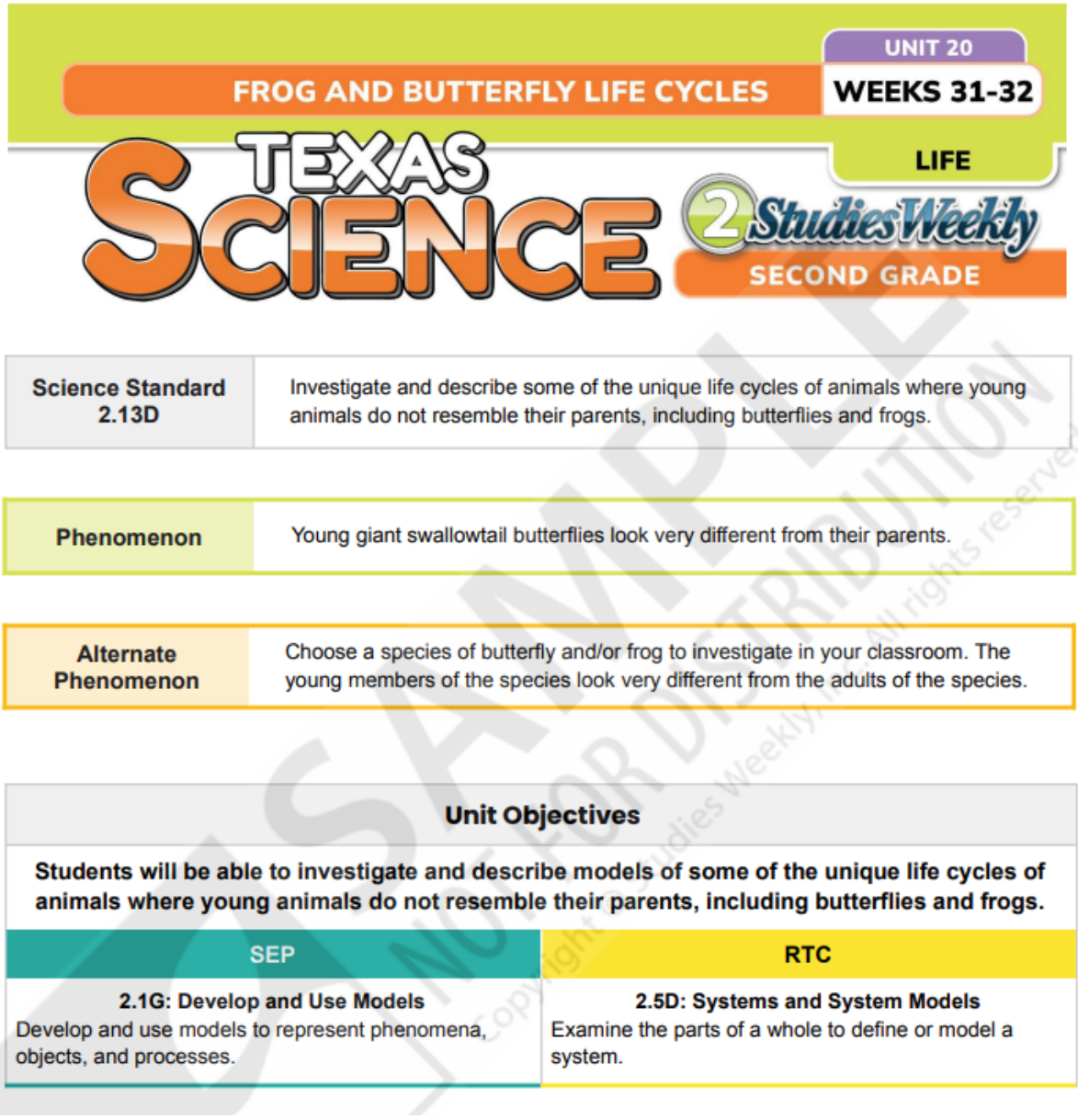
Phenomenon	Longhorn ants, like other ants, form groups.

Unit Objectives

Students will be able to record and organize data, using words, to investigate and predict cause-and-effect relationships to record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes.

SEP	RTC
2.1F: Collect and Organize Data Record and organize data using pictures, numbers, words, symbols, and simple graphs.	**2.5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Unit20:
https://cdn.studiesweekly.com/online/unit_group_teacher_edition_pdfs/2009/Lesson%20Plan%20Unit%2020.pdf



Screenshot of Proposed Updated Content

As this is a replacement of the entire Teacher Edition and it is generally well over 5 pages per document, links to the updated Teacher Editions are provided here:

Unit 1 Week1:
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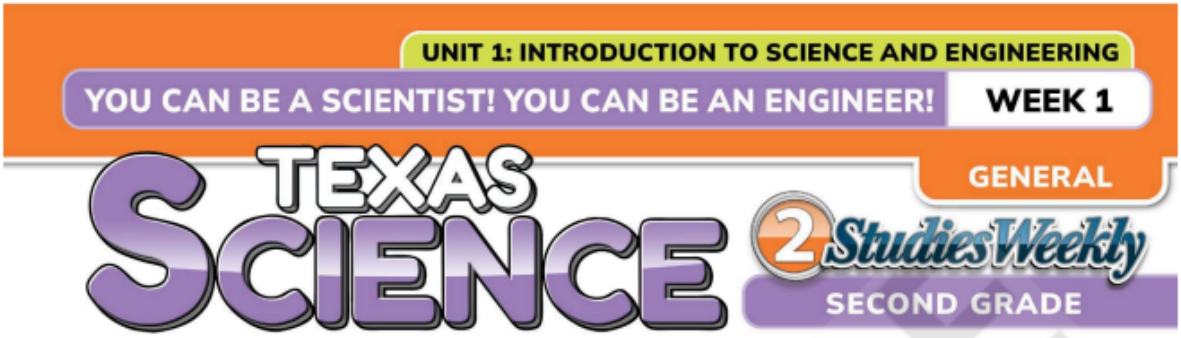

Unit Objectives
Students will be able to think like scientists and engineers, describe how to use tools safely, work in teams, identify how to have a growth mindset, and describe how scientists and engineers help others.

Activity Summary		Lesson Time	5E	Page
Week 1: You Can Be a Scientist! You Can Be an Engineer!		**3 Hours 45 Minutes Total**		
Day 1 45 min.	1. Who Are Scientists and Engineers?	45 minutes	Engage	1.7
Day 2 45 min.	2. Tools and Safety	45 minutes	Explore	1.9
Day 3 45 min.	3. Teamwork	45 minutes	Explore	1.11
Day 4 45 min.	4. Growth Mindset	45 minutes	Explore	1.13
Day 5 45 min.	5. Making Discoveries and Innovations	45 minutes	Explore	1.15

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Unit 1 Week 2:
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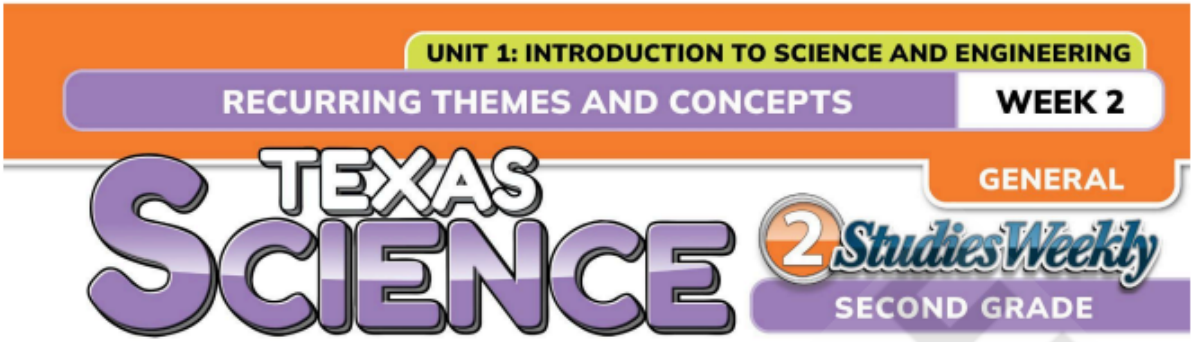

Unit Objectives
Students will be able to describe phenomena through the lenses of different recurring themes and concepts.

Activity Summary		Lesson Time	5E	Page
Week 2: Recurring Themes and Concepts		3 Hours 45 Minutes Total		
Day 1 45 min.	1. Part A: Through the Lens of Recurring Themes and Concepts Part B: Patterns	45 minutes	Engage	1.23
Day 2 45 min.	2. Part A: Cause and Effect Part B: Systems and System Models	45 minutes	Explore	1.25
Day 3 45 min.	3. Structure and Function	45 minutes	Explore	1.28
Day 4 45 min.	4. Part A: Energy and Matter Part B: Stability and Change	45 minutes	Explore	1.30
Day 5 45 min.	5. Scale, Proportion, and Quantity	45 minutes	Explore	1.32

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Unit 1 Week 3:
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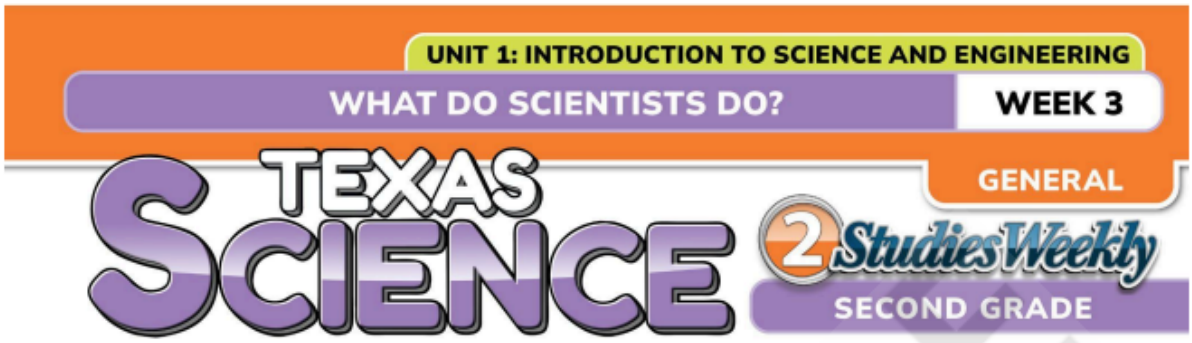

Unit Objectives
Students will be able to identify and use scientific and engineering practices.

Activity Summary		Lesson Time	5E	Page
Week 3: What Do Scientists Do?		**3 Hours 45 Minutes Total**		
Day 1 45 min.	1. Scientific and Engineering Practices	45 minutes	Engage	1.40
Day 2 45 min.	2. Plan and Conduct Investigations	45 minutes	Explore	1.42
Day 3 45 min.	3. Develop and Use Models	45 minutes	Explore	1.45
Day 4 45 min.	4. Collect and Analyze Data	45 minutes	Explore	1.47
Day 5 45 min.	5. Develop Explanations	45 minutes	Explore	1.49

Unit 1 Week 4:
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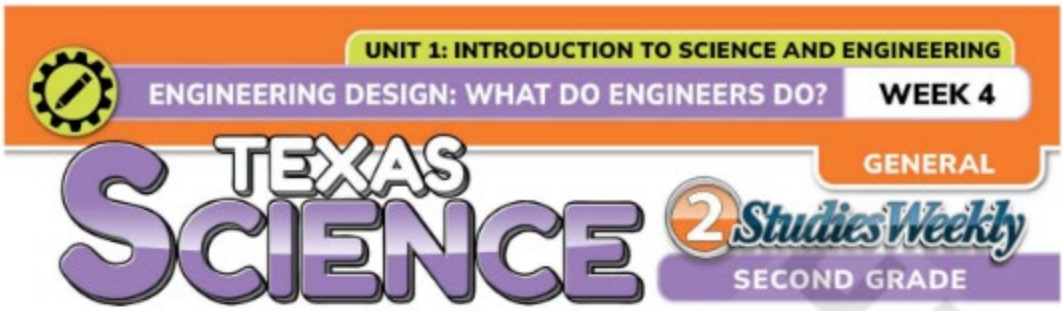

Engineering Design Scenario	Natalia loves art. She keeps forgetting to bring her fancy drawing pencils to school. She doesn't want to put them in her backpack because they might break, but she keeps leaving them on the table.

Unit Objectives
Students will be able to identify and describe the steps of the engineering design process by defining a problem, designing and planning a solution, creating a prototype, testing a prototype, and identifying improvements.

Activity Summary		**Lesson Time**	**EDP** (Engineering Design Process)	**Page**
Week 4: Engineering Design: What Do Engineers Do?		**3 Hours 45 Minutes Total**		
Day 1 45 min.	1. **The Engineering Design Process and Practices**	45 minutes	Define	1.58
Day 2 45 min.	2. **Ideate and Plan**	45 minutes	Develop	1.61
Day 3 45 min.	3. **Create**	45 minutes	Develop	1.64
Day 4 45 min.	4. **Test and Improve**	45 minutes	Optimize	1.66
Day 5 45 min.	5. **Communicate**	45 minutes	Optimize	1.69

Unit 2:
https://drive.google.com/file/d/1TbQREws0vYC-K49w92Eoj2daTxliu5FG/view?usp=drive_link

Science Standard 2.6A	Classify matter by observable physical properties, including texture, flexibility, and relative temperature, and identify whether a material is a solid or liquid.

Phenomenon	Gelatin doesn't look and feel the same all the time.

Unit Objectives	
Students will be able to ask questions based on observations of phenomena to identify and use patterns to classify matter by observable physical properties.	
SEP	**RTC**
2.1A: Ask Questions Ask questions based on observations or information from text, phenomena, models, or investigations.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit 3:
https://drive.google.com/file/d/11XjI-la3i5K9K7vcZRD91WnIX1mxSDYk/view?usp=drive_link

Science Standard 2.6B	Conduct a descriptive investigation to explain how physical properties can be changed through processes such as cutting, folding, sanding, melting, or freezing.

Engineering Design Scenario	It can be hard to tell a wax model from the real thing.

Unit Objectives	
Students will be able to conduct simple descriptive investigations and use engineering practices to identify properties of matter and how they can change.	
SEP	**RTC**
2.1B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems.	**2.5E: Energy and Matter** Identify forms of energy and properties of matter.

Unit 4:
https://drive.google.com/file/d/1TB4oP9q2bgFQQ3xTpt7g7d4FaYDPKNeP/view?usp=drive_link

Science Standard 2.6C	Demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties.

Phenomenon	A northern mockingbird's nest can be made of more than just leaves and twigs.

Unit Objectives	
Students will be able to communicate explanations that demonstrate that small units can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties.	
SEP	**RTC**
2.3B: Communicate Explanations Communicate explanations and solutions individually and collaboratively in a variety of settings and formats.	**2.5E: Energy and Matter** Identify forms of energy and properties of matter.

Unit 5:
https://drive.google.com/file/d/1eZXIA72Tlhemw0Ds-L-c7rJx3m7bjrf-/view?usp=drive_link

Science Standard 2.7A	Explain how objects push on each other and may change shape when they touch or collide.

Phenomenon	A golf ball changes shape when it is hit by a golf club.

Unit Objectives

Students will be able to plan and conduct investigations to explain how objects push on each other and may change shape when they touch or collide.

SEP	RTC
1B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems.	**5G: Stability and Change** Describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same.

Unit 6:
https://drive.google.com/file/d/1irQhbbjhpbgrFslNYjgMvyJ7BaoZRevK/view?usp=drive_link

Science Standard 2.7B	Plan and conduct a descriptive investigation to demonstrate how the strength of a push and pull changes an object's motion.

Phenomenon	Gina can't get Ms. Johnson to move on the swing, but Ms. Garcia can.

Unit Objectives	
Students will be able to plan and conduct a descriptive investigation to demonstrate how the strength of a push and pull changes an object's motion.	
SEP	**RTC**
2B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations.	**5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Unit 7:
https://drive.google.com/file/d/1yWkGjgHu8RTxS8-xnBUyImmjUtmYk-cC/view?usp=drive_link

Science Standards	**2.8A:** Demonstrate and explain that sound is made by vibrating matter and that vibrations can be caused by a variety of means, including sound.
	2.8B: Explain how different levels of sound are used in everyday life such as a whisper in a classroom or a fire alarm.

Phenomenon	A string and a cup can make an interesting sound sometimes.

Unit Objective	
Students will be able to demonstrate and explain sound's vibrations and levels caused by a variety of means.	
SEP	**RTC**
2.3B: Communicate Explanations Communicate explanations individually and collaboratively in a variety of settings and formats.	**2.5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Unit 8:
https://drive.google.com/file/d/1GS1FfaOx0dO7drdXJaB3T6ckK1TWNOI1/view?usp=drive_link

Science Standard 2.8C	Design and build a device using tools and materials that uses sound to solve the problem of communicating over a distance.

Engineering Design Scenario	Mrs. Garcia's second grade class loves recess. Sometimes Mrs. Garcia needs to communicate with her class for different reasons. The students are busy playing and cannot see or hear her from a distance.

Unit Objectives	
Students will be able to design and build a device using tools and materials that uses sound to solve the problem of communicating over a distance.	
SEP	**RTC**
2.1B: Design Solutions Use engineering practices to design solutions to problems.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit 9:
https://drive.google.com/file/d/1F9A3pGJcxpgpPkz7tmWnKQxAEhxjeBq1/view?usp=drive_link

Science Standards	**2.9A:** Describe the sun as a star that provides light and heat and explain that the moon reflects the sun's light.
	2.9B: Observe objects in the sky using tools, such as a telescope, and compare how objects in the sky are more visible and can appear different with a tool than with an unaided eye.

Phenomenon	The world around us is warmer and brighter in the day than at night

Unit Objectives	
Students will be able to develop and use models to describe the sun as a star that provides light and heat. Students will be able to use tools, such as a telescope, to observe and explain that the moon reflects the sun's light.	
SEP	**RTC**
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Unit 10:
https://drive.google.com/file/d/1ZBY263Okx5DjbcI-M3AuTymBiVmRAeIL/view?usp=drive_link

Science Standard 2.10A	Investigate and describe how wind and water move soil and rock particles across the Earth's surface, such as wind blowing sand into dunes on a beach or a river carrying rocks as it flows.

Phenomenon	Sandcastles at the beach can get knocked over without people touching them.

Unit Objectives

Students will be able to investigate and describe how wind and water move soil and rock particles across the Earth's surface.

SEP	RTC
2.1B: Plan and Conduct Investigations Use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems.	**2.5G: Stability and Change** Describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same.

Unit 11:
https://drive.google.com/file/d/1qgnsTyJbithwjXzJjB2GIvkI0RsEqP_E/view?usp=drive_link

Science Standards	**2.10B:** Measure, record, and graph weather information, including temperature and precipitation.
	2.10C: Investigate different types of severe weather events such as a hurricane, tornado, or flood and explain that some events are more likely than others in a given region.

Phenomenon	Alana, Gina, and Cameron observe the windy, rainy, and cold weather outside, and each think a different weather event is happening: a tornado, a hurricane, and a regular rainy day.

Unit Objectives	
Students will be able to collect and organize weather data, including temperature, precipitation, and severe weather events (hurricane, tornado, and flood), to identify patterns that explain some events are more likely than others in a given region.	
SEP	**RTC**
2.2B: Analyze Data Analyze data by identifying significant features and patterns.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

Unit 12:
https://drive.google.com/file/d/1r1VY8H0URhonK7rYl0GiiQ5V_77f8mIl/view?usp=drive_link

Science Standard 2.11A	Distinguish between natural and manmade resources.

Phenomenon	Jackson goes to the superstore with his dad. His dad sorts the items into two bags. Jackson wonders why he sorted them that way and if there is another way to sort the items.

Unit Objectives

Students will be able to analyze data by identifying significant patterns in order to distinguish between natural and human-made resources.

SEP	RTC
2.2B: Analyze Data Analyze data by identifying significant features and patterns.	**2.5A: Patterns** Identify and use patterns to describe phenomena or design solutions.

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Unit 13:
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Science Standard 2.11B	Describe how human impact can be limited by making choices to conserve and properly dispose of materials, such as reducing use of, reusing, or recycling paper, plastic, and metal.

Phenomenon	In 2021, Texans threw away an average of 7.09 pounds of trash per person a day, adding over 38 million tons of trash to Texas landfills in a year.

Unit Objectives

Students will be able to communicate explanations to describe how human impact can be limited by making choices to converse and properly dispose of materials.

SEP	RTC
2.3B: Communicate Explanations and Solutions Communicate explanations and solutions individually and collaboratively in a variety of settings and formats.	**2.5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

Update to Content Not Reviewed by SRP

Unit 14:
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Science Standard 2.12A	Describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem.

Phenomenon	Tide pools are underwater for part of the day, then shallow puddles for the rest of the day.

Unit Objectives	
Students will be able to identify and describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem.	
SEP	**RTC**
2.2B: Analyze Data Analyze data by identifying significant features and patterns.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Update to Content Not Reviewed by SRP

Unit 15:
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Science Standard 2.12B	Create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things.

Phenomenon	Many animals in Texas eat wild berry plants, while only a few animals eat javelinas.

Unit Objectives

Students will be able to create and describe food chain models to identify producers and consumers and demonstrate how animals depend on other living things in an ecosystem.

SEP	RTC
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Unit 16:
https://drive.google.com/file/d/1nEbZ4B1WhK1PNegnDDWLyJwDn5gBlkuf/view?usp=drive_link

Science Standard 2.12C	Explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around.

Engineering Design Scenario	Jackson wants to grow a dandelion garden in his yard but the seeds keep ending up on his father's lawn. Jackson decides to plant his new dandelions in a greenhouse he made from a bottle. He notices that no new dandelions have grown.

Unit Objectives

Students will be able to develop and use models to describe the relationship between the structure of plant parts and its function to explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around.

SEP	RTC
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Unit 17:
https://drive.google.com/file/d/1WjG8Fz8pAW2RlFtFVUDP73gaXWhDDMVl/view?usp=drive_link

Science Standard 2.13A	Identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival.

Phenomenon	Texas paintbrush plants and Southern sugar maple trees look different but they both get what they need to grow in East Texas.

Unit Objectives	
Students will be able to identify the parts of a plant and compare how those parts help different plants meet their basic needs for survival.	
SEP	**RTC**
1F: Collect and Organize Data Record and organize data using pictures, numbers, words, symbols, and simple graphs.	**5F: Structure and Function** Describe the relationship between structure and function of objects, organisms, and systems.

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Unit 18:
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Science Standard 2.13B	Record and compare how the structures and behaviors of animals help them find and take in food, water, and air.

Phenomenon	Raccoons put their hands in water before they eat.

Unit Objectives

Students will be able to record, compare, and organize their data about how the structures and behaviors of animals help them find and take in food, water, and air.

SEP	RTC
2.1F: Collect and Organize Data Record and organize data using pictures, numbers, words, symbols, and simple graphs.	**2.5F: Structure and Function** Describe the relationship between structure and function of objects, organisms, and systems.

Unit 19:
https://drive.google.com/file/d/1YiCMA8w-xrjDN5kIG2G0cfnYTR-stND4/view?usp=drive_link

Science Standard 2.13C	Record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes.

Phenomenon	Longhorn ants, like other ants, form groups.

Unit Objectives

Students will be able to record and organize data, using words, to investigate and predict cause-and-effect relationships to record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes.

SEP	RTC
2.1F: Collect and Organize Data Record and organize data using pictures, numbers, words, symbols, and simple graphs.	**2.5B: Cause and Effect** Investigate and predict cause-and-effect relationships in science.

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Unit 20:
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Science Standard 2.13D	Investigate and describe some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs.
Phenomenon	Young giant swallowtail butterflies look very different from their parents.
Alternate Phenomenon	Choose a species of butterfly and/or frog to investigate in your classroom. The young members of the species look very different from the adults of the species.

Unit Objectives

Students will be able to investigate and describe models of some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs.

SEP	RTC
2.1G: Develop and Use Models Develop and use models to represent phenomena, objects, and processes.	**2.5D: Systems and System Models** Examine the parts of a whole to define or model a system.

Signature: By entering your name below, you are signing this document electronically. You agree that your electronic signature is the equivalent of your manual signature.

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X Clayton Chamberlain

Date Submitted: March 11, 2024