

Monday March 30	Tuesday March 31	Wednesday April 1	Thursday April 2	Friday April 3
Chavez/Huerta Day (Holiday)	<p><b>Objective:</b> Classify objects based on their relative density.</p> <p><b>Overview:</b> Students will use a large bowl of water and objects around the house to test whether the objects will sink or float. Students will record data in their journals using a chart.</p>	<p><b>Objective:</b> Classify matter based on measurable, testable and observable physical properties.</p> <p><b>Overview:</b> Students will choose 3 objects or substances, observe objects, and classify them as solid, liquid, or gas. Then, students will record the different properties of solids, liquids, and gases in their journal using a chart.</p>	<p><b>Objective:</b> Create mixtures and solutions and use physical properties to separate them.</p> <p><b>Overview:</b> Students will use different substances and objects at home, create mixtures and solutions, and record their properties. They will also explain how they would separate the mixtures and/or solutions.</p>	<p><b>Objective:</b> Demonstrate that the flow of electricity in closed circuits can produce light, heat and sound.</p> <p><b>Overview:</b> Students will walk around house and observe electrical energy being used. Then, they will discuss how electricity flows using images provided of circuits to justify their parts and functions.</p>
Monday April 6	Tuesday April 7	Wednesday April 8	Thursday April 9	Friday April 10
<p><b>Objective:</b> Design an experiment to test the effect of force on an object.</p> <p><b>Overview:</b> Students will test a bouncing ball on different surfaces to determine which surface would allow the ball to bounce higher and explain their reasoning.</p>	<p><b>Objective:</b> Explain how the Sun and the ocean interact in the water cycle.</p> <p><b>Overview:</b> Students will create model of the water cycle, put the model in a warm, sunny location for a certain amount of time, and describe their observations over time in their journals.</p>	<p><b>Objective:</b> Demonstrate how Earth's rotation causes the apparent movement of the Sun across the sky through models.</p> <p><b>Overview:</b> Students will observe the Sun and its location throughout the day. Then, they will draw the Earth and the Sun and explain how the Earth's rotation causes day and night.</p>	<p><b>Objective:</b> Examine properties of soils.</p> <p><b>Overview:</b> Students will go outside to observe different plants, collect soil samples, and explore which soil would be best for retaining water.</p>	Spring Holiday

Monday
Chavez/Huerta Day (Holiday)

**Tuesday- 30-45 minutes**

Activity / Task

**Relative Density**

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade5Day01>

Objective: Classify objects based on their relative density.

Think About It!

Why do some things float, and others sink? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- A large, clear bowl filled with water
- 6 objects in your home that are safe to drop in water (can be solid or liquid)

What to do:

- Draw a data table. Record the name of each object in the table.
- PREDICT what will happen when each object is dropped in water. Write your prediction in the table.
- Place each object in water and record if the object was more dense than water (sank to the bottom) or less dense than water (floated on the top).

Object	Prediction	More Dense or Less Dense than Water

Table by HISD Curriculum using Microsoft Office

Understand It!

Objects that sink to the bottom of water in a container are MORE DENSE than water.

Objects that float at the top of water in a container are LESS DENSE than water.



Photo by HISD Curriculum using iPhone



Photo by HISD Curriculum using iPhone

- Go back to your chart. Check to make sure you recorded MORE DENSE for objects that sank and LESS DENSE for objects that floated.
- Think about your predictions. Were they correct? Why or why not?



## Tuesday- 30-45 minutes

### Apply It!

Journal Entry: The diagram below shows one container with oil and water and one container with oil and a cork.

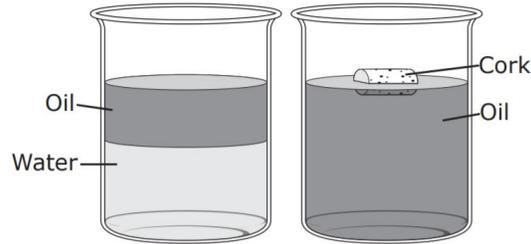


Image from ©TEA release tests with [permission](#).

Draw a diagram that shows what would most likely happen if the oil, water and cork were all placed in one container. Explain your reasoning using the stem:

“\_\_\_\_\_ is less dense than water, and water is more dense than \_\_\_\_\_” in your explanation.

### Resources

[Guided activity using Google Slides](#)

Wednesday- 30-45 minutes

Activity / Task

**Physical Properties**

To access this interactive lesson, visit <https://tinyurl.com/hisd-Grade5Day2>

Objective: Classify matter based on measurable, testable and observable physical properties.

Think About It!

How can we identify an object by its physical properties? If you can, discuss this question and share your thinking with someone in your home.

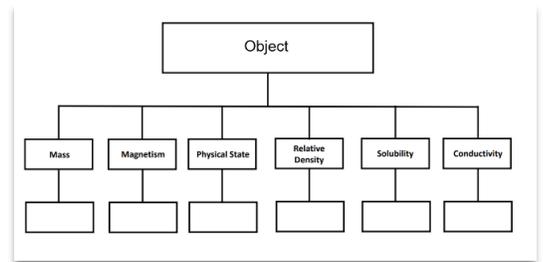
Do It!

What you need:

- Three items or substances to observe.
- Tools for observation, such as a kitchen magnet, clear bowl of water, kitchen scale to measure mass in grams.
- Journal or paper for recording observations

What to do:

- Select any 3 objects or substances (See examples in resources below).
- Create a graphic organizer like the one on the right for **each object**. Use this to record observations about different physical properties.
- Observe each object and record your observations in the organizer.
- If you can, test the material for magnetism (use a kitchen magnet), relative density (sinks or floats in water), and solubility (dissolves in water).
- Think about the material's ability to conduct or insulate thermal energy or electrical energy.



Graphic Organizer by HISD Curriculum using Microsoft Office

Understand It!

All matter can be classified, or sorted, by observable physical properties.

- |                         |  |
|-------------------------|--|
| <b>MASS</b>             | What is the mass of the substance?         |
| <b>PHYSICAL STATE</b>   | Is it a solid, liquid, or gas?             |
| <b>RELATIVE DENSITY</b> | Does the substance sink or float in water? |
| <b>SOLUBILITY</b>       | Does the substance dissolve in water?      |
| <b>CONDUCTIVITY</b>     | Is it an insulator or conductor?           |
| <b>MAGNETISM</b>        | Is it attracted to a magnet?               |

What is one property that some of the substances you chose have in common? For example, a penny, a marble, and a paper clip are all more dense than water.

Apply It!

Journal entry: Analyze the table below.

Physical Properties of Substances		
?	?	?
<ul style="list-style-type: none"> <li>• Aluminum foil</li> <li>• Brass key</li> <li>• Gold ring</li> </ul>	<ul style="list-style-type: none"> <li>• Cooking oil</li> <li>• Soap bubble</li> <li>• Wood chip</li> <li>• Feather</li> </ul>	<ul style="list-style-type: none"> <li>• Baking soda</li> <li>• Drink mix</li> <li>• White sugar</li> </ul>

Chart from ©TEA release tests with permission. 2019 STAAR Release



## Wednesday- 30-45 minutes

How were each of these columns sorted? Name the common property in each column and explain your thinking using your understanding of all of the properties of matter.

\_\_\_\_\_ and \_\_\_\_\_ share the property of \_\_\_\_\_ because they both \_\_\_\_\_.

Resources

[Guided activity using Google Slides](#)



Thursday (30 - 45 minutes)

Activity / Task

**Mixtures and Solutions**

To access this interactive lesson, visit <https://tinyurl.com/hisd-Grade5Day3>

Objective: Create mixtures and solutions and use physical properties to separate them.

Think About It!

How can you create mixtures and solutions? How can you use physical properties to separate them? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- Different substances such as water, pepper, salt, sugar, plastic beads, sand, toothpicks, powdered drink mix, pebbles, paper clips, cereal or marbles.
- Three or four small containers for creating mixtures and solutions.
- Tools for separating mixtures such as a coffee filter, strainer, magnet, tweezers, and water.
- Journal or paper for recording observations

What to do:

- Create a recording table.
- Select three different substances and record your observations in the table *before mixing*.
- Choose two of your materials and mix them together in a bowl. Record the properties after mixing.
- Think about how you might separate them. What tool would you use?
- If you can, separate the mixtures/solutions. Were the substances easy or difficult to separate?
- Repeat the process with other materials you gathered and record your observations in the table.

Substance	Observable Properties Before Mixing	Observable Properties After Mixing	Tools for separating substances	Mixture or Solution?

Table by HISD Curriculum using Microsoft Office

Understand It!

Some mixtures are easy to separate by their physical properties. For example, a mixture of paper clips and marbles can be separated with a magnet because paper clips are magnetic. Other mixtures are called *solutions* because they are not easy to separate. The powdered drink mix completely dissolved in the water and cannot be removed.



Photos by HISD Curriculum using iPhone



**MIXTURE**

Easily separated by physical properties.

**SOLUTION**

Not easily separated by physical properties.

Look at the mixtures you made. Are any of your mixtures also considered solutions?

**Thursday (30 - 45 minutes)**

Apply It!

Journal Entry:

A student has sand, paper clips, salt water, and shells mixed together in a bottle. The student wants to separate this mixture. List the properties of each substance in the table.

Substance	Properties
Sand	
Paper clips	
Salt water	
Shells	

Graphic Organizer by HISD Curriculum using Microsoft Office

Based on the properties you identified, explain the process and tools the student should use to separate the mixture. Use what you know about physical properties to help you explain.

Resources

[Guided activity using Google Slides](#)



**Friday- 30-45 minutes**

Activity / Task

**Electrical Energy**

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade5Day4>

Objective: Demonstrate that the flow of electricity in closed circuits can produce light, heat and sound.

Think About It!

What are some of the ways you use electricity every day in your home? How does the energy flow to make these devices work?

Do It!

What you need:

- Journal or paper for making observations
- Data table to gather information about energy.
- Highlighter or crayon

What to do:

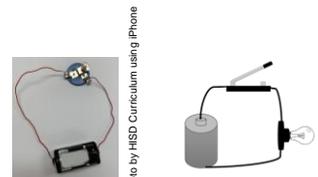
- Create a data table.
- Take a walk through your home to find devices that use electricity.
- List the devices and how they are used. Record if they use electricity to produce light, heat, or sound.

Device	Used For	Light	Heat	Sound
television	entertainment	yes	yes	yes

Table by HISD Curriculum using Microsoft Office

Understand It!

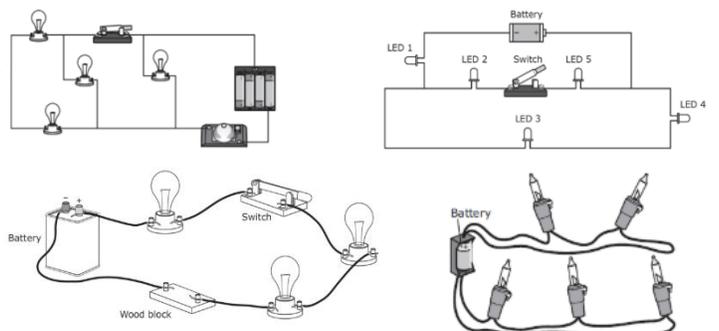
We use electricity for many different devices in our homes and schools. For these devices to work, the electricity must be able to flow in a complete circuit. If the circuit is open, the device will not work.



**Closed Circuit**      **Open Circuit**

Apply It!

Use a crayon or highlighter to trace the flow of energy through each of the circuits.



Journal Entry: Draw a circuit with 4 bulbs and one switch. In this circuit, 3 bulbs will light when the switch is open and all 4 light up when the switch is closed.

Explain why 3 bulbs remain lit when the switch is open.

Resources

Interactive simulation - <https://bit.ly/3ay5pqV>  
 Guided activity using Google Slides



**Monday – 30-45 minutes**

Activity / Task

**Design an Experiment to Test Force**

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade5Day5>

Objective: Design an experiment to test the effect of force on an object

Think About It!

Hold a bouncing ball and stand on a hard surface. Predict how high the ball will bounce if you let go. Do you think the ball would bounce any higher if you stood on a soft surface like carpet? Discuss your prediction with a family member if possible.

Do It!

What you need:

- Bouncing ball
- Centimeter ruler or tape measure
- Three different floor/ground surfaces (such as carpet, tile, and grass)

Surface	Height of Drop in Centimeters		
	Trial 1	Trial 2	Trial 3
Carpet	_____ cm	_____ cm	_____ cm
Tile	_____ cm	_____ cm	_____ cm
Grass	_____ cm	_____ cm	_____ cm

Table by HISD Curriculum using Microsoft Office

What to do:

- Drop the bouncing ball from the same height on three different surfaces (Carpet, Tile, Grass). If you cannot find these exact surfaces, you may improvise and use a similar surface.
- Use a measuring tool such as a ruler, measuring tape, or meter stick to measure the height of the bounce using centimeters (cm). Record your results in a data table (see example).
- Test each surface three times and record your findings under trial 1, 2, and 3 for each surface.

Understand It!

The **variable** in an experiment is the one thing you are changing.

The **control(s)** in an experiment are the things you must make sure stay the same.

The **measured outcome** of an experiment is the collected result or outcome of the experiment.

**Multiple trials** in an experiment is repeating a measurement at least three times to ensure reliability of the experiment.

Think about your experiment and fill in the blanks in the sentence below:

In my experiment, the \_\_\_\_\_ (testable variable) affected the \_\_\_\_\_ (measurement outcome).

Apply It!

Journal Entry: Look at the image of an experiment set up.

Write a testable question that could represent what the student was trying to test. Use the question stem below:

How does \_\_\_\_\_ affect \_\_\_\_\_?

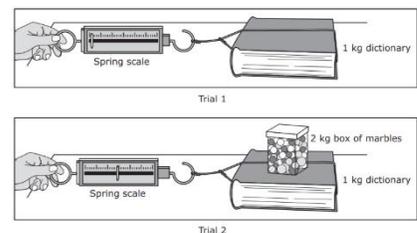


Image from © IELT, release tests with Luminasoft.

Resources

[Guided activity using Google Slides](#)



## Tuesday- 30-45 Minutes

Activity / Task

### Water Cycle

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade5Day06>

Objective: Explain how the Sun and the ocean interact in the water cycle.

#### Think About it!

What happens to a puddle of water after it rains?

#### Do It!

What you need:

- Cup or glass of warm water
- Plastic wrap, or a lid that seals tightly on your cup/glass
- Ice cubes
- Science notebook or sheet of paper

What to do:

- Create a model of the water cycle by covering the top of a glass of warm water with plastic wrap and securing it with a rubber band (make sure the plastic wrap is tight and flat across the top of the glass).
- Place an ice cube on top of the plastic wrap. Place the model in a warm window for 10 minutes.
- While waiting, draw a diagram of the investigation in your journal and label the materials used. Make predictions of what you think will happen to the water in the glass. After 5 minutes, remove the ice cube and look at the plastic wrap and the glass. Write your observations and draw a diagram of the model in your journal. The diagram should include labels that describe the water cycle, including *evaporation*, *condensation*, *precipitation*, and *surface runoff*.

#### Understand It!

The **water cycle** is the process that water travels through in Earth's atmosphere and on Earth's surface. The sun drives the water cycle, and in our model, the warm water represents the ocean water warmed by the Sun causing the water to **evaporate**. The ice cube used in the model represent the cooler temperatures in the upper atmosphere where **condensation** occurs. The water droplets dripping from the plastic wrap represent the process of **precipitation**.

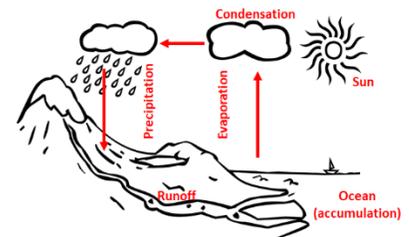


Image from ©TEA release tests with permission. STAAR Release

#### Apply It!

Look at the image below:

Explain how the sun and ocean interact to form clouds near the beach. Use the words *evaporation* and *condensation* to explain your thinking.



© Phil Hester/Dreamstime.com

Resources

[Guided activity using Google Slides](#)

Wednesday- 30-45 minutes

Activity / Task

**Apparent Movement of the Sun Across the Sky**

To access this interactive lesson, visit <https://tinyurl.com/HISDSscienceGrade5Day07>

Objective: Demonstrate how Earth's rotation causes the apparent movement of the Sun across the sky through models.

Think About It!

How can we track how the Sun appears in the sky over a day?

Do It!

What you need:

- A compass
- sidewalk
- chalk

What to do:

- Go outside in the morning (about 8:00 A.M.). Using a compass or the maps app on a phone, locate NORTH, EAST, SOUTH, and WEST. Mark these directions on the driveway or sidewalk using chalk.
- Observe and trace your shadow and note the time. If you cannot go outside, do the same by looking out the window, observing the shadow of a fixed object such as a tree, and recording observations in a journal.
- Once you have made the morning observation, draw and label a diagram of the Sun and Earth and explain how the Earth's rotation causes day and night and the changes in shadows throughout the day.
- Later in the day (at about 12:00 P.M. and again at 4:00 P.M.) go back outside or return to the same window. Observe and record the changes in the shadows observed earlier in the day. What do you think caused this change? Record your thinking in your journal.

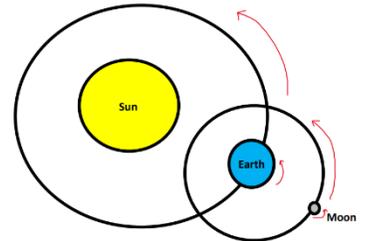


Diagram created by HISD Curriculum Using Microsoft Office

Understand It:

The Earth **rotates**, or makes a complete spin, on its **axis** once every 24 hours creating the **day/night cycle**. It is because of this rotation that the Sun appears to move across the sky.

The Earth **revolves**, or moves around, the Sun. This revolution takes one year or about 365 days.

Complete the following sentence stem using the word bank at the bottom:

The Earth \_\_\_\_\_ on it's \_\_\_\_\_ once every 24 hours. This rotation causes the apparent \_\_\_\_\_ of the Sun across the \_\_\_\_\_. The sun does not revolve around us.

Word Bank

Sky	Axis	Apparent	Rotates
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## Wednesday- 30-45 minutes

### Apply It!

A class is discussing why they believe the Sun changes position throughout the day.

I think that the Sun revolves around Earth and that is why the Sun changes position throughout the day.



Alejandro

I think Earth rotates on an axis and that is why the Sun changes position throughout the day.



Nia

I think that the Earth revolves around the Sun and that is why the Sun changes position throughout the day.



Kim-Dawn

I think that the Sun rotates on an axis and that is why the Sun changes position throughout the day.



Maxwell

Which student(s) do you agree with? \_\_\_\_\_

Justify your thinking. Explain why you agree with the student(s) you chose.

Created by HISD Curriculum using images from Vectazey.com and Microsoft Office

### Resources

[Guided activity using Google Slides](#)

## Thursday – 30-45 minutes

Activity / Task

### Properties of Soils

To access this interactive lesson, visit <https://tinyurl.com/HISDScienceGrade5Day08>

Objective: Examine properties of soils

#### Think About It!

Go outside and observe different types of soil.

Look at plants and observe the types of soils plants are growing in.

Think about which type of soil would be best for retaining, or keeping, water.



Image by Jing from Pixabay

#### Do It!

What you need:

- Gravel
- Sand
- Humus (topsoil)

What to do:

- Collect small samples different soils.
- Observe each type of soil and record notes about the color, texture and particle size in your journal.

Soil Type	Illustration	Observations
Sand		
Gravel		
Humus/ Topsoil		

Table by HISD Curriculum using Microsoft Office

#### Understand It!

**Soil** is a mixture of broken bits of rock and **humus** (decayed plants and animals) where plants can grow. The best kind of soil for plants allows water to move through it slowly enough so that some of the water stays in the soil for plants to use. The soil's **water retention** ability, along with other environmental factors, determine its ability to **support plant growth**.

#### Apply It!

Look at the diagram of an experiment setup below. In this experiment, a student was testing to see which type of soil retained the most water.

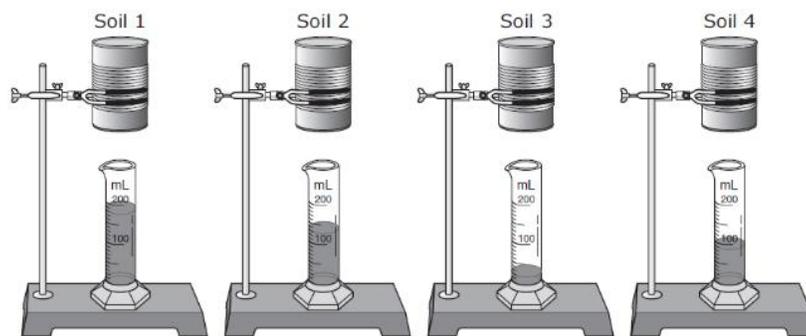


Image from ©TEA release tests with permission. STAAR Release

Which type of soil retained the most water? How do you know?

Based on this experimeny, which type of soil would be best for supporting the growth of a plant that needs a lot of water? Explain why.

Resources

[Guided activity using Google Slides](#)

## Friday

Spring Holiday

