

Monday April 27	Tuesday April 28	Wednesday April 29	Thursday April 30	Friday May 1
<p>Objective: Measure and compare the physical property of mass of objects.</p> <p>Overview: Students will construct a balance using a hanger, plastic baggies and string to measure and compare the mass of different objects.</p>	<p>Objective: Determine which object has the greatest volume.</p> <p>Overview: Students will explore volume by adding items to a cup of water and recording the results.</p>	<p>Objective: Compare properties of matter of a variety of objects.</p> <p>Overview: Students will compare the physical properties of different items and create a chart to record their findings.</p>	<p>Objective: Identify conductors of thermal energy.</p> <p>Overview: Students will explore how items some items can work as conductors when placed in warm water.</p>	<p>Objective: Identify insulators of thermal energy.</p> <p>Overview: Students will explore how some items can work as insulators by placing an ice cube in cups made from different materials.</p>
Monday May 4	Tuesday May 5	Wednesday May 6	Thursday May 7	Friday May 8
<p>Objective: Design a descriptive investigation to explore the effect of gravity on an object.</p> <p>Overview: Students will explore how gravity pulls items to the Earth by testing different objects.</p>	<p>Objective: Read weather maps including weather symbols and map keys.</p> <p>Overview: Students will practice reading a weather map and identify major weather symbols.</p>	<p>Objective: Analyze data to predict changes in the observable appearance of the Moon.</p> <p>Overview: Students will explore the different phases of the moon by creating a Lunar Calendar after observing the moon each night.</p>	<p>Objective: Investigate and compare a variety of soils and their ability to retain water.</p> <p>Overview: Students will explore how different soils absorb water testing the soils outside and create a graph of their data.</p>	<p>Objective: Investigate weathering, erosion and deposition and their effects on Earth's landscape.</p> <p>Overview: Students will explore how mountains are broken down by creating a model to re-create weathering, erosion and deposition.</p>

Monday – 30-45 minutes

Activity / Task

Mass

To access this interactive lesson, visit <https://tinyurl.com/HISD-Grade4Day19>

Objective: Measure and compare the physical property of mass of objects.

Think About It!

How can we tell which object has the greater mass? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- Pencil
- Science notebook/ Paper
- Plastic coat hanger
- String or yarn
- Two sandwich bags or snack bags
- Something to punch a small hole in the bags, such as a skewer or scissors
- Several different objects to measure
- Recording sheet
- An adult to help



Images by HISD curriculum using Google phone

What to do:

- Build your balance using the materials above or click for instructions found [here](#) if possible.
- Make sure the balance is hanging level.
- Place an object on one side of the balance and a different object on the other side.
- Record which object drops the bag lower in your journal.
- Repeat with other objects in your home.
- Be sure the balance is level each time you start.

Understand it!

- Mass is the amount of matter in an object or substance.
- Mass is a physical property that can be used to classify matter.
- Mass is measured using a balance.
- On a pan balance, the object that causes the pan to drop lower has the most mass.
- Mass can be measured in grams using a triple beam balance.



Pan Balance

Image by whocaresaboutit from Pixabay

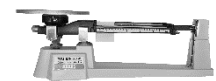


Image by Wikimedia Commons

Apply It!

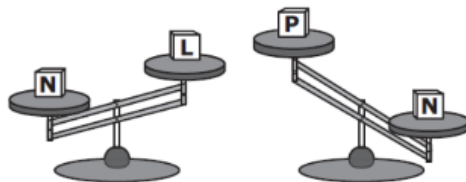
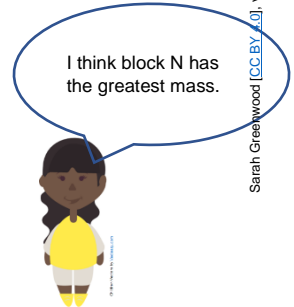


Image from ©TEA 2016 release test with permission.



Journal: Which student do you agree with? Why do you think that student is correct?

Resources

[Guided Activity using Google Slides](#)



Tuesday – 30-45 minutes

Activity / Task

Volume

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade4Day20>

Objective: Determine which object has the greatest volume.

Think About It!

How can we find out which object has the greatest volume? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

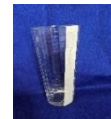
- Pencil
- Science notebook/ Paper
- Tall, clear glass or pitcher similar to the one on the right
- Water
- Masking tape
- Several small objects that will fit into the glass



Image by Ciker-Free-Vector-Images from Pixabay

What to do:

- Put a piece of masking tape on the glass to make a measurement bar.
- Fill the glass about half-way with water.
- Record the “before” water level by making a small mark on the masking tape.
- Place your first object into the water, and make a small mark at the new water level. The object should be small enough to fit completely under the water.
- Repeat the process with a different object, and record which of the two cause the water to rise the most. That is the object with the greatest volume.
- Repeat the process with two different objects.



Images by HISD curriculum using Google phone



Images by HISD curriculum using Google phone

Understand it!

- Volume is the amount of space taken up by matter.
- Volume of liquids can be measured in mL using a graduated cylinder or beaker.
- The volume of a solid can be measured by dropping the object into water.
- The object will move aside, or displace, the water it is in, causing the water level to rise.
- The object that causes the water level to rise the most is the object with the greatest volume.

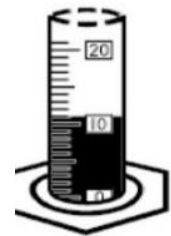


Image created by HISD Curriculum using 123 Science Fonts



Images by HISD curriculum using Google phone

**The golf ball caused the water to rise more than the toy elephant.
The golf ball has the greatest volume.**



Tuesday – 30-45 minutes

Apply It!

Some students wanted to find the difference in volume between three different blocks. They filled each graduated cylinder to the same point, and then dropped one block in each cylinder. The pictures below show the level of water after the students dropped the blocks in.

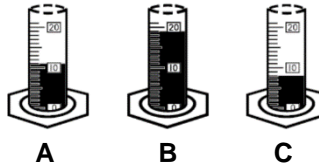


Image created by HISD Curriculum using 123 Science Fonts

Journal: Which of the blocks had the greatest volume? Explain how you know.

Resources

[Guided Activity using Google Slides](#)

Wednesday – 30-45 minutes

Activity / Task

Multiple Properties of Matter

To access this interactive lesson, visit <https://tinyurl.com/HISD-Grade4Day21>

Objective: Compare properties of matter of a variety of objects.

Think About It!

How can we compare properties of matter? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- Pencil
- Science notebook/ Paper
- Coat hanger balance from Monday's lesson
- Glass of water from Tuesday's lesson
- Several objects for comparing, such as small toys, kitchen utensils, or food containers

What to do:

- Create a data table in your notebook like the one below.

Name of Object	Mass	Volume	Length	Texture

- Choose two of the objects you gathered to compare and write the name of each object in the table.
- Using the balance you created, measure which object has the most mass. Place an X in the mass column for that object.
- Using the glass of water (or a bowl if your object is large) measure which of the objects has the most volume. Remember, the object with the most volume will cause the water to rise higher. Place an X in the volume column for that object.
- Lay the objects sided by side. Decide which object is longer and place an X in that column.
- Feel each of the objects and decide which one has the smoothest texture. Place an X in the column for that object.
- Repeat the process with two different objects, recording the information in the table

Understand it!

- Matter is anything that has mass and takes up space (volume).
- Mass, volume, size, texture, magnetism, temperature, and color are all physical properties
- We can compare matter by observing the physical properties using our senses and science tools.

Apply It!

A student was comparing the physical properties of two different objects. She marked which object had more mass, which had more volume, which was longest, and which was smoothest. Her observations are in the table below.

Name of Object	Mass	Volume	Length	Texture
Pencil			X	X
?	X	X		

Journal: Think about what you have learned about comparing physical properties. What could be an object that was compared to the pencil. Explain why you selected that object.



Images by HISD curriculum using Google phone

Resources

[Guided Activity using Google Slides](#)

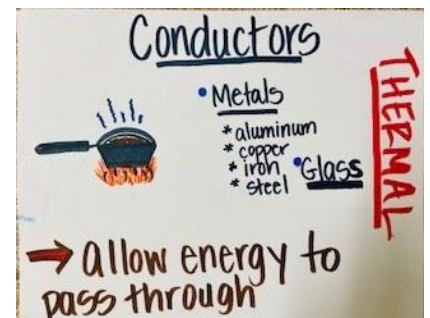


Thursday – 30-45 minutes

<p>Activity / Task</p>	<p>Conductors To access this interactive lesson, visit https://tinyurl.com/HISD-Grade-4-Day-22</p> <p>Objective: Identify conductors of thermal energy.</p> <p><u>Think About It!</u> Think about a pot on a stove. How does thermal energy get from the stove to the food inside the pot? How are pots and pans made so the food cooks evenly? If you can, discuss this question and share your thinking with someone in your home.</p> <p><u>Do It!</u> What you need:</p> <ul style="list-style-type: none"> • Pencil • Science notebook/ Paper • Plastic spoon or plastic straw • Wooden spoon or wooden popsicle stick • Metal spoon or metal fork • 3 cups • Warm tap water <p>What to do:</p> <ul style="list-style-type: none"> • With an adult's help, fill each cup with warm tap water. • Place a spoon in each cup. • Let the spoons sit one minute in the warm tap water. • With a family member monitoring, touch each of the spoon handles. • Discuss which spoon handle was the warmest. <p><u>Understand it!</u> Thermal Energy can be observed when there is a transfer of energy between substances of different temperatures. Conductors allow energy to pass through. Metals such as aluminum, copper, iron, and steel are examples of conductors.</p> <p><u>Apply It!</u> Which type of spoon felt the warmest? Explain what properties of the spoon made it a good conductor of thermal energy. Give examples of at least 3 conductors found in your home. Why do you think conductors are important?</p>
<p>Resources</p>	<p>Guided activity using Google Slides</p>



Photo by HISD Curriculum using iPhone






Friday – 30-45 minutes

<p>Activity / Task</p>	<p>Insulators To access this interactive lesson, visit https://tinyurl.com/HISD-Grade-4-Day-23</p> <p>Objective: Identify insulators of thermal energy.</p> <p><u>Think About It!</u> What can you use to take a pizza out of the oven? Why would you need to use it? If you can, discuss this question and share your thinking with someone in your home.</p> <p><u>Do It!</u> What you need:</p> <ul style="list-style-type: none"> • Pencil • Science notebook/ Paper • 1 plastic cup, 1 Styrofoam cup, 1 glass cup • 3 ice cubes <p>What to do:</p> <ul style="list-style-type: none"> • Place one ice cube in each cup. • Cover with a paper towel and let sit for 15 minutes. • Observe the size and amount remaining of each ice cube. • Draw your observations of each ice cube. • Which cup was best at preventing the ice from melting? <p><u>Understand it!</u> Materials that do not conduct energy well are considered insulators. Insulators do not allow heat to move easily through them. Plastic, rubber, wool, and wood are examples of insulators.</p> <p><u>Apply It!</u> Which type of cup was best for preventing ice from melting? Explain why the properties of the cup made it the best insulator of thermal energy. Give examples of at least 3 insulators found in your home. Why do you think insulators are important?</p>
<p>Resources</p>	<p>Guided activity using Google Slides</p>



Photo by HISD Curriculum using iPhone

Monday – 30-45 minutes

<p>Activity / Task</p>	<p>Gravity To access this interactive lesson, visit https://tinyurl.com/HISD-Grade-4-Day-24</p> <p>Objective: Design a descriptive investigation to explore the effect of gravity on an object.</p> <p><u>Think About It!</u> What force is acting on an apple falling off a tree toward the ground? If you can, discuss this question and share your thinking with someone in your home.</p> <p><u>Do It!</u> What you need:</p> <ul style="list-style-type: none"> • Pencil • Science notebook/ Paper • Small objects of various weights <p>What to do:</p> <ul style="list-style-type: none"> • With an adult’s assistance, stand on a bench or chair. • Drop each of the objects one by one. • Repeat the drops 3 times. • Make observations of each drop. • Draw a picture of your investigation. • Which object fell the fastest? The slowest? Why? <p><u>Understand it!</u> Gravity is a force that attracts objects together. Gravity pulls objects toward the Earth.</p> <p><u>Apply It!</u> Explain how the images demonstrate the pull of gravity on metal objects. What are some other examples of gravity?</p> <div style="display: flex; justify-content: space-around; align-items: center;">  </div> <p style="text-align: right; font-size: small;">Photo by HISD Curriculum using iPhone</p> <div style="display: flex; justify-content: center; align-items: center; margin-top: 20px;">   </div> <p style="display: flex; justify-content: space-around; font-size: x-small; margin-top: 5px;"> Photo by HISD Curriculum using iPhone Photo by HISD Curriculum using iPhone </p>
<p>Resources</p>	<p>Guided activity using Google Slides</p>

Tuesday – 30-45 minutes

Activity / Task

Weather

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade4Day25>

Objective: Read weather maps including weather symbols and map keys.

Think About It!

What are the parts of a weather map? If you can, discuss this question and explain your thinking with someone in your house.

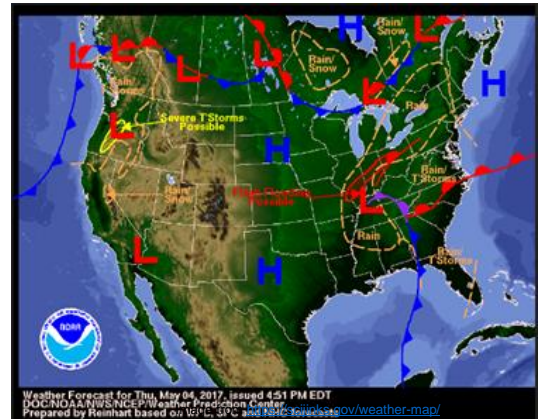
Do It!

What you need:

- Pencil
- Science notebook/ Paper
- Weather Map

What to do:

- Look at the weather map shown to the right.
- Describe the symbols that are near the following states.
 - Texas
 - California
 - Florida



Understand it!

To depict weather from day to day, specific weather symbols are displayed on weather maps. Symbols that are generally viewed on weather maps consist of those for a high-pressure system, low-pressure system, front (cold, warm, and stationary), jet stream, and air mass.

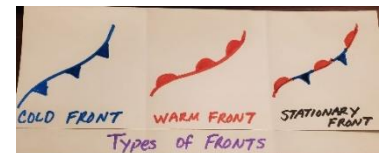
- **Cold front** - is a boundary between two air masses, one cold and the other warm, moving so that the colder air replaces the warmer air.
- **Warm front** - is a boundary between two air masses, one cool and the other warm, moving so that the warmer air replaces the cooler air.
- **Stationary front** - is a boundary between two air masses that do not move.



Created by HISD Curriculum using markers

Apply It!

Create a three-flap folding model. Label one flap cold front, one flap warm front and the other flap stationary front. In your own words write a definition for each term. On the bottom flap describe the weather condition.



Created by HISD Curriculum using markers

Resources

[Guided activity using Google Slides](#)



Wednesday – 30-45 minutes

Activity / Task

Moon Phases

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade4Day26>

Objective: Analyze data to predict changes in the observable appearance of the Moon

Think About It!

What pattern do the moon phases follow? If you can, discuss this question and explain your thinking with someone in your house.

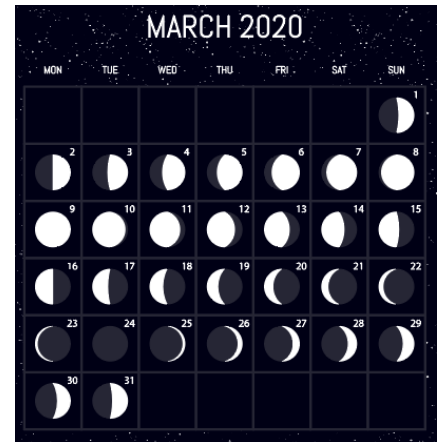
Do It!

What you need:

- Pencil
- Science notebook/Paper
- Moon phase calendar
- Markers/colored pencils

What to do:

- On a blank sheet of paper create a calendar for the months of April and May.
- Using the moon phase calendar for the month of March predict the phases of the moon for the next two months (April and May).
- On the blank calendar draw your predictions for each day.



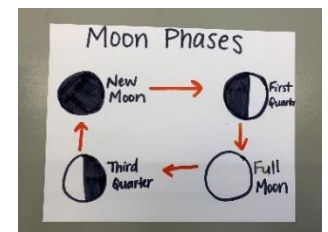
© paw — stock.adobe.com

Understand it!

The part of the Moon that we see as we look from Earth changes in a cycle that repeats about once a month (29.5 days). The relative positions of our Sun, Earth, and Moon cause these changes.

There are four basic phases of the moon

- **New Moon** – The Moon is between Earth and the Sun, so the Moon is not visible. We don't see the lit side of the moon.
- **First Quarter** – Only the right half of the moon is visible.
- **Full Moon** – The moon is fully visible.
- **Last/Third Quarter** – Only the left half of the moon is visible.



Anchor Chart by HISD Curriculum using Marker

Apply It!

On your April and May moon phase calendars label the four basic phases (new moon, first quarter, full moon, last/third quarter). Describe any patterns you notice after labeling each phase. For example, how many days are there between each phase?

Resources

[Guided activity using Google Slides](#)

Thursday – 30-45 minutes

Activity / Task

Soil

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade4Day27>

Objective: Investigate and compare a variety of soils and their ability to retain water

Think About It!

What is the best type of soil for plants to grow in? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- Pencil
- Science notebook/ Paper
- Measuring cup
- Soil
- Water
- Container
- Paper cup
- Craft stick/plastic spoon

Material	Volume of Water Added to the Material	Volume of Water NOT Retained	Volume of Water Retained
Humus	60ml	17ml	43ml
Clay	60ml	18ml	
Sand	60ml	48ml	
Gravel	60ml	53ml	
Pebbles	60ml	54ml	
Control	60ml	59ml	
House Soil			

Table by HISD Curriculum using Microsoft Office

What to do:

- Perforate the bottom of a paper cup with a push pin. You should perforate every 4–5 mm.
- You will go on a scavenger hunt looking for a cup of soil near your home. Put the soil in the perforated cup.
- Place the paper cup on top of an empty container.
- Use a measuring cup to measure 60 ml or ¼ cup of water (A 10 ml medicine cup could be used also.) and pour it in the cup.
- Use a craft stick or plastic spoon to stir the contents of the paper cup for one minute.
- Wait 10 minutes, then pour the water from the container into an empty measuring cup.
- Record your results on a table like the one shown above.
- Calculate the volume of water retained by subtracting 60ml from the volume of water not retained (the amount of water that was in the container).

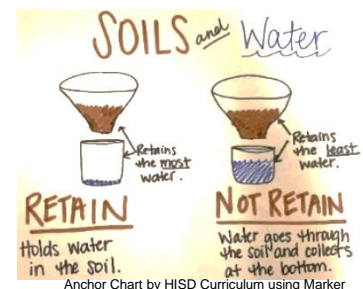
Understand it!

Soil has the ability to retain water and support plant growth. The best kind of soil for plants allows water to move through slowly enough so that some of it stays in the soil for the plants to use.

Which material retained the most water? Which material retained the least amount of water? (Retain means to keep or hold.)

Apply It!

In your journal answer the following questions. What type of soil would be best if someone wanted to grow a plant that needed a lot of water to survive? What type of soil would be best if they wanted to grow a cactus? Explain your thinking.



Resources

[Guided activity using Google Slides](#)



Friday – 30-45 minutes

Activity / Task

Weathering, Erosion, and Deposition

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade4Day28>

Objective: Investigate weathering, erosion and deposition and their effects on Earth's landscape.

Think About It!

What are some slow changes that affect land? If you can, discuss this question and share your thinking with someone in your house.

Do It!

What you need:

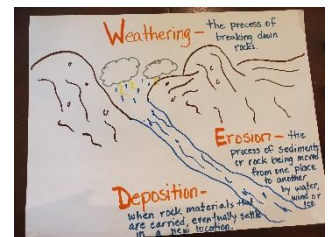
- Pencil
- Science notebook/ Paper
- Craft stick or plastic knife
- Soil / dirt
- Clear container
- Ruler / measuring tape
- Water



Image by HISD Curriculum using Samsung

What to do:

- Gather some soil and make a pile that resembles a mountain on the left side of the clear container. (Make sure the soil is moist and not too dry).
- Place the craft stick or plastic knife in the middle of the mountain model. Push it all the way down to where you can barely see it. If you do not have enough soil to cover the stick, add more until it does.
- Draw a picture of your model. Measure and record the height of the mountain model using a reference point.
- Slowly pour 60 mL (¼ of a cup) of water on the top of the mountain model.
- Measure the exposed portion of the craft stick by comparing it with the reference point.
- Draw another picture of the model and record the height after the water has been poured on it.



Anchor Chart by HISD Curriculum using Marker

Understand it!

Weathering is the process of breaking down rocks. Erosion is the process of sediments or rock being moved from one place to another by moving water, wind, or ice. Deposition is when rock materials that are carried, eventually settle in a new location. These processes work together to create new landforms.

Apply It!

Create a three-tab folding model to demonstrate understanding of changes to landforms. On the outside list terms and definition. On the inside draw a landform that is created or changed by this process.



Foldable by HISD Curriculum using Marker

Resources

[Guided activity using Google Slides](#)

