

2019-2020 HISD @ H.O.M.E. Distance Learning

At a Glance

Science - Grade 3

Monday	Tuesday	Wednesday	Thursday	Friday
March 30	March 31	April 1	April 2	April 3
Chavez/Huerta Day (Holiday)	Objective: Describe and sort objects as solid, liquid, or gas.  Overview: Students will describe and sort 6-8 household objects into 3 categories: a solid, a liquid, or a gas, which are the states of matter.	Objective: Test objects to determine whether they sink or float.  Overview: Students will gather 6-8 household objects to predict and test if these objects sink or float, using a container of water.	Objective: Create and separate mixtures.  Overview: Students will gather items to be used to combine for mixtures, draw the mixture, create a plan to separate the mixture, and test the plan to see if it works.	Objective: Explore the forms of energy found at home.  Overview: Students will gather household objects that move, observe them and then describe how they work. Students will also search for examples of objects in the home that use mechanical, light, thermal, and sound energy.
Monday	Tuesday	Wednesday	Thursday	Friday
April 6	April 7	April 8	April 9	April 10
Objective: Predict, observe, and record the changes that occur to water when the temperature is increased and decreased.  Overview: Students will observe how increasing or decreasing temperature can affect water and identify the processes of melting, evaporation, condensation, and freezing.	Objective: Observe, record, and compare day-to-day weather conditions.  Overview: Students can: (1) Observe, record, and compare today's weather to tomorrow's weather, OR (2) Observe, record, and compare today's weather in Houston to another city using technology, if possible.	Objective: Describe and illustrate the Sun as a star that provides energy to Earth.  Overview: Students will identify that the Sun is a star, illustrate the Sun, and write about the energy that the Sun provides to Earth.	Objective: Explore and record the components of soil.  Overview: Students will collect soil samples found outside the home and describe the different components found in their soil sample, such as small rocks, dead leaves, sticks, small grains of sand, etc.	Spring Holiday

















2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 1

# **Monday**

Chávez/Huerta Day (Holiday)

# Activity / Task

#### **States of Matter**

To access this interactive lesson, visit <a href="https://tinyurl.com/HISDGrade3Day01">https://tinyurl.com/HISDGrade3Day01</a>

Tuesday- 30-45 minutes

Objective: Describe and sort objects as solid, liquid or gas.

### Think About It!

How do we identify the state of matter of an object? If you can, discuss this question and share your thinking with someone in your home.

### Do It!

#### What you need:

Collect a variety of objects (about 6-8 total) Examples: glass of water, an air-filled balloon, a ball, a wooden block, a rock, etc.

#### What to do:

- Sort the objects into three groups: Solid, Liquid, and Gas.
- Explain how you decided to place each object in each category.
- Draw a chart in a notebook or on a sheet of paper to record which objects go in each category, such as the one below. Write the name and draw a picture of each object in the chart.

Solid	Liquid	Gas

Table created by HISD Curriculum using Microsoft Office

#### Understand it!



Solid

matter that keeps its shape and volume when placed in a different container (e.g. rock).

#### States of Matter



Image by Wolfgang Eckert from Pixabay

# Liquid

keeps its volume but takes the shape of the container that it is in (e.g. milk).



Image by Susann Mielke from Pixabay

# Gas

takes the volume and the shape of the container that it is in (e.g. helium balloon).















2019-2020 HISD @ H.O.M.E. - Distance Learning Science - Grade 3

March 30 - April 10, 2020 - Week 1

Tuesday- 30-45 minutes		
	Apply It! Journal Entry: Students observed a substance in a cup to determine its state of matter. They noticed that the substance is the same shape as the cup, and that it makes a large, wet puddle on the floor when it is poured out of the cup. What state of matter is the substance?  Hint: Think about the properties of solids, liquids, and gases. How are they different, and how can	
	you determine the state of matter of an object?	
Resources	Guided activity using Google Slides	





2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 1

# Activity / Task

### Sink or Float

To access this interactive lesson, visit https://tinyurl.com/HISDGrade3Day02

Wednesday- 30-45 minutes

Objective: Test objects to determine whether they sink or float.

### Think About it!

What type of objects sink or float in water? If you can, discuss this question and share your thinking with someone in your home.

#### Do It!

What you need:

Collect a variety of objects (6-8 total in different sizes, shapes, and mass) and a container filled with water. (Be sure the objects can fit in the container.)

#### What to do:

Draw the chart below in a science notebook or sheet of paper.

Object	Prediction	Sink	Float

Table created by HISD Curriculum using Microsoft Office

- List all the objects in the table on the "object" column and write whether you think the object will sink or float in the "prediction" column.
- Test the objects one at a time and place a check mark next to "sink" or "float", depending on how the object behaved in water.

## Understand It!

Did all the small objects float? Did the results match your predictions? What surprised you?





not all large objects sink. Try other objects such as a penny and an apple in case your results do not prove this.

Note: Not all small objects float and

Photos by HISD Curriculum using iPhone

#### Apply It!

Journal Entry #1: Which objects sank? Which objects floated? Describe any common properties of the objects that sank or floated.

Journal Entry #2: A student placed a small wooden block in water, and it floated. He placed a much larger, heavier wooden block made of the same wood in the water. What will most likely happen?

Resources

Guided activity using Google Slides

# GLOBAL GRADUATE















2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 1

# Thursday- 30-45 minutes

# Activity / Task

# **Exploring Mixtures**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade3Day03

Objective: Create and separate mixtures.

# Think About It!

What tools or equipment can be used to separate mixtures? If you can, discuss this question and share your thinking with someone in your home.

#### Do It!

#### What you need:

Gather these materials: sand, paperclips, marbles, plastic beads, water, gravel. You may omit or substitute if you do not have all the materials on hand.

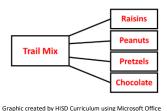
#### What to do:

- Pick two objects at a time and mix them together in a container.
- Draw the mixture in your notebook. Describe the physical properties of the substances you observe and explain how you would separate this mixture using what you know about these physical properties.
- Test your plan to separate the mixture. (For example, a mixture of sand and water can be separated by pouring it through a coffee filter, and a mixture of paperclips and marbles can be separated by placing a magnet in the mixture to collect the paperclips.
- Repeat this process at least three times for different objects.

### **Understand It!**



Trail mix can be separated using tweezers or your hand because all components of the mixture are solid and large enough to easily remove.



# Other examples:

- A filter, such as strainer, can be used to separate sand and rocks.
- Evaporation is also a way to separate mixtures, because the heat separates the liquid from dissolved or undissolved solids.
- A magnet can separate iron filings from soil.

Journal Entry: Describe a mixture that you see in everyday life. What are its components, and how does each component contribute to the mixture?

Resources

















2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 1

# Activity / Task

# Friday- 30-45 minutes

# **Exploring Forms of Energy**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade3Day04

Objective: Explore the forms of energy found at home.

#### Think About It!

What forms of energy do we encounter every day? If you can, discuss this question and share your thinking with someone in your home.

# Do It!

What you need:

Gather a variety of objects that move to function, such as a toy car, yo-yo, windup toy, and paper fan.

#### What to do:

- Explore the objects and record your observations about what each object is and what you need to do in order to make it work.
- Record your thinking on a table.

Object	How it Works

Table created by HISD Curriculum using Microsoft Office

After completing the table, identify the type of energy you just explored.

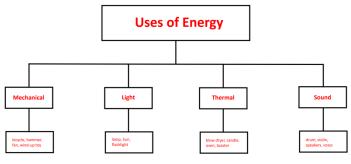
Next, go on a scavenger hunt around your home and record examples of objects that use Mechanical, Light, Thermal, and Sound energy. Record your findings.

Form of Energy	Home Examples
Mechanical	
Light	
Thermal	
Sound	

Table created by HISD Curriculum using Microsoft Office

# Understand It!

Objects that are set in motion or move demonstrate mechanical energy.



Graphic created by HISD Curriculum using Microsoft Office















2019-2020 HISD @ H.O.M.E. - Distance Learning Science - Grade 3

March 30 - April 10, 2020 - Week 1

	Friday- 30-45 minutes
	Apply It! Journal Entry 1: Which of the following uses light energy?
	Floor via Good Free Phases
	Brage by Cite Cine Vicilia.  The property Cite Cine Cite Cite Cite Cite Cite Cite Cite Cit
	Justify your answer by identifying the type of energy in the answer choices you do not choose.  Journal Entry 2: Explain how you use forms of energy throughout the day.
Resources	Guided activity using Google Slides





2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 2

# Monday- 30-45 minutes

# Activity / Task

# **Changing States of Matter**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade3Day05

Objective: Predict, observe, and record the changes that occur to water when the temperature is increased and decreased.

#### Part 1

#### Think About It!

What changes can or will occur to ice when there is an increase in its temperature? If you can, discuss the question and share your thinking with someone at home.

#### Do It!

### What you need:

Gather a clear cup and place ice inside.

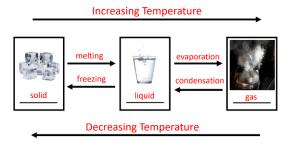
#### What to do:

- Describe the ice and draw it in your notebook or on a sheet of paper.
- Take the cup of ice outside on warm day, predict what will happen if the ice is left outside.
- Draw what you see in your notebook or on a sheet of paper.

#### Parents:

- After the ice melts, bring the cup inside and place the water in a pan on the stovetop. Allow the student to see what happens when the water is heated to boiling. It is strongly encouraged that an adult is present to boil the water. Have the student draw what they see.
- Place the leftover water in the freezer to see what happens.

## **Understand It!**



Graphic created by HISD Curriculum using Microsoft Office

# Apply It!

Journal Entry: Create a flow chart that uses the vocabulary words increase, decrease, melting, evaporation, freezing, and condensation to describe the changes that the water went through in the investigations. See the sample below for an example.

Resources

















2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 2

# Tuesday- 30-45 minutes

# Activity / Task

# **Comparing Weather**

To access this interactive lesson, visit https://tinyurl.com/HISD-Grade-3-Day-6

Objective: Observe, record, and compare day-to-day weather conditions.

### Think About It!

What does the weather look like outside today? How does the temperature feel? Is there any wind blowing or any precipitation falling? If you can, discuss the question and share your thinking with someone at home.

#### Do It!

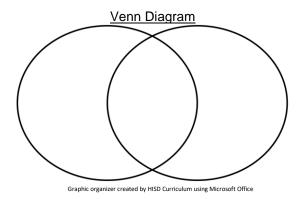
#### What you need:

- Science notebook or sheet of paper and a pencil
- Tools for measuring weather (if available)
- Technology for researching weather (if available)

#### What to do:

- Go outside on two different days, observe and record the weather in your notebook or on a sheet of paper.
- Use any resources available (newscast, newspaper, technology) to record the weather for each
- After day two, draw a Venn Diagram to compare both days.
- If possible, research the weather in Houston and another city. Use a Venn diagram to compare the two.

#### Understand It!



#### Apply It!

Journal Entry: Write about how the weather during your two days compare. If you were able to research two places, how do they compare?

Resources



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Science - Grade 3

March 30 - April 10, 2020 - Week 2

# Wednesday- 30-45 minutes

# Activity / Task

# **Describing the Sun**

To access this interactive lesson, visit https://tinyurl.com/HISD-Grade-3-Day-7

Objective: Describe and illustrate the Sun as a star that provides energy to Earth.

#### Think About It!

What forms of energy are produced by the Sun?

How do objects outside interact with the Sun, such as plants such as plants using the Sun's light energy to make their own food or water puddles evaporating due to the Sun's thermal energy? If you can, discuss the question and share your thinking with someone at home.

#### Do It!

What you need:

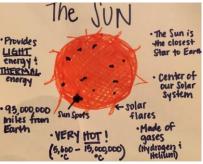
Science notebook or a sheet of paper and a pencil

#### What to do:

- Go outside on a sunny day, observe the Sun, and think about the forms of energy produced by the Sun.
- Record your observations in your science notebook Safety Note: When outside, be sure to refrain from looking at the Sun directly.

# Understand It!

In your science notebook, create an anchor chart to capture what you've learned about the Sun. See the example below.



Anchor Chart by HISD Curriculum using Market

### Apply It!

Journal Entry: The student should illustrate the Sun and write about the energy that the Sun provides to Earth. Use the following sentence stems when recording your journal entry.

- What are the physical characteristics of the Sun?
  - The physical characteristics of the Sun are
- Why do we consider the Sun to be a star? The Sun is considered a star because
- What forms of energy does the Sun provide for Earth?
  - The Sun provides \_\_\_ \_\_\_\_ energy and \_\_ energy for Earth.
- What are some examples of ways that we use light energy from the Sun? We use light energy from the Sun to
- What are some examples of ways that we use thermal energy from the Sun? We use thermal energy from the Sun to

Resources

















2019-2020 HISD @ H.O.M.E. - Distance Learning

Science - Grade 3

March 30 - April 10, 2020 - Week 2

# Activity / Task

# **Soil Components**

To access this interactive lesson, visit https://tinyurl.com/HISD-Grade-3-Day-8

Thursday – 30-45 minutes

Objective: Explore and record the components of soil.

### Think About It!

What do you notice about the soil you see around your home? What do we find in soil? If you can, discuss the question and share your thinking with someone at home.

#### Do It!

#### What you need:

- Sample of the soil found outside around your home
- Science notebook or sheet of paper and a pencil
- Magnifying glass (if available)

#### What to do:

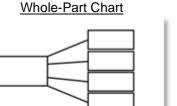
- Collect the soil sample from outside around your home.
- Bring the soil to a surface or area in which you can explore the soil and its materials.
- Separate the soil into parts such as small rocks, dead leaves and/or grains of sand.

# Understand It!

After separating the soil into all the parts found in soil, record the things you find in your soil sample in your science notebook or on paper along with a picture of the soil.

#### Apply It!

Journal Entry: Using the recordings found in your soil sample, organize them in a graphic organizer such as the one shown below. Create a whole-part chart in your notebook to illustrate your thinking.



Graphic organizer created by HISD Curriculum using Microsoft Office

Resources

Guided activity using Google Slides

# Friday

Spring Holiday

