HISD | Elementary Curriculum and Development

INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

2019-2020 HISD @ H.O.M.E. Distance Learning
At a Glance
Science – Grade 2

Monday March 30	Tuesday March 31	Wednesday April 1	Thursday April 2	Friday April 3
Chavez/Huerta Day (Holiday)	**Objective:** Measure and sort the temperature of water. **Overview:** Students will observe 3 cups of water: ice water, room temperature water, and very warm water and record their observations using a 3-column category chart.	**Objective:** Classify objects by the physical property of flexibility. **Overview:** Students will gather 6-8 household objects that will be observed, tested, and classified into 2 categories “flexible” or “not flexible”.	**Objective:** Classify objects based on whether they are solid or liquid. **Overview:** Students will explore liquids by pouring them into different containers and solids by placing them in different containers. Students should draw what they observe as they explore solids and liquids to be able to describe differences between solids and liquids.	**Objective:** Identify and explore forms of energy. **Overview:** Students will explore their home to find items that are a source of heat, light, or sound energy. They will write what the item is, what source of energy is provides, and how it is used in our everyday lives.
Monday April 6	**Tuesday April 7**	**Wednesday April 8**	**Thursday April 9**	**Friday April 10**
Objective: Demonstrate and record ways they can change the physical properties of materials. **Overview:** Students will demonstrate how matter can change by using 3-4 household items that can be broken, bent, or cut.	**Objective:** Create a bar graph to compare daily temperatures. **Overview:** Students will record the temperature outside for 3 days to create a bar graph to compare daily temperatures.	**Objective:** Observe, describe, and record patterns of the Moon. **Overview:** Students will observe, describe, and record the appearance of the moon each night to see the pattern of moon phases.	**Objective:** Observe, describe, and compare rocks. **Overview:** Students will collect rocks of different sizes, colors, textures, and shapes outside their home to observe, describe, and compare.	Spring Holiday

GLOBAL GRADUATE

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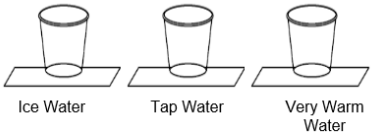
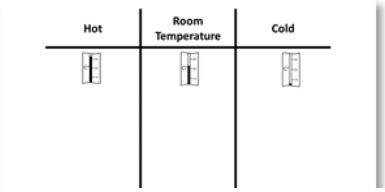
2019-2020 HISD @ H.O.M.E. – Distance Learning
Science – Grade 2
March 30 - April 10, 2020 – Week 1

Monday
Chávez/Huerta Day (Holiday)

Tuesday – 30-45 minutes	
Activity / Task	**Classify Objects by Temperature** **To access this interactive lesson, visit: https://tinyurl.com/HISDGrade2Day01** Objective: Measure and sort the temperature of water. Think About It! How do I use a thermometer? If you can, talk with someone in your home about how to use a thermometer. Do It! What you need: • 3 thermometers • Cup of ice water • Cup of room temperature water (tap water) • Cup of very warm water (get assistance from an adult) • Science notebook or a sheet of paper  Created by HISD Curriculum using Microsoft Office What to do: • Observe the lines and numbers on the thermometer. • Carefully place a thermometer in each cup of water. • Observe the red liquid in the thermometer. • Put one finger in each cup to feel the temperature of the water inside. • Draw a picture of the setup of cups with the thermometers. • Draw a table like the one below to record your observations about the 3 cups of water.  Created by HISD Curriculum using Microsoft Office and 123 Science Fonts Understand It! • A thermometer is a tool used to measure the temperature of a substance. • The red liquid in a thermometer goes up (increases) when matter is hot. • The red liquid in a thermometer goes down (decreases) when matter is cold. • A higher number means a higher temperature.  Image by Pixaline from Pixabay Apply It! Journal Reflections: How do we measure and sort the temperature of a liquid using a thermometer?
Resources	Guided Activity using Google Slides

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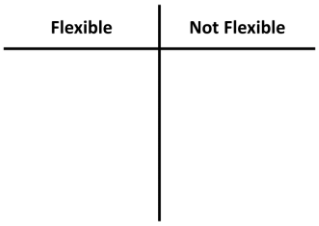
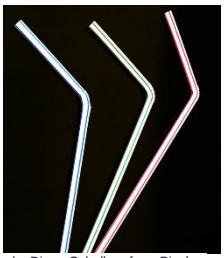
Science – Grade 2
March 30 - April 10, 2020 – Week 1

Wednesday – 30-45 minutes	
Activity / Task	**Classify Objects by Flexibility** **To access this interactive lesson, visit: https://tinyurl.com/HISDGrade2Day2** Objective: Classify objects by the physical property of flexibility (ease in bending). Think About It! Why do some things bend easily, and some things do not? If you can, discuss this question and share your thinking with someone in your home. Do It! What you need: • Plastic straw • Wooden ruler • Plastic ruler • Earbuds • Rubber band • Science notebook or sheet of paper What to do: • Create a "Flexible" and "Not Flexible" T-chart. • Separate the objects into groups and predict those that bend and those that do not bend. • Discuss the properties of objects placed in each group and share your thinking with someone in your home. • Test your objects to see if each one will bend or not. Be careful not to force bending if they do not easily bend on their own. • Record observations for each object on your T-chart. Understand It! • Objects that can bend easily has the physical property of flexibility. Objects can be very useful because they are flexible (bends easily). • Objects that do not bend easily do not have the physical property of flexibility. Apply It! Journal Reflections: Choose one of the objects that was tested. Describe the object and explain why being flexible makes that object useful.  Created by HISD Curriculum using Microsoft Office  Image by Diana Caballero from Pixabay  Image by PublicDomainPictures from Pixabay
Resources	Guided activity using Google Slides

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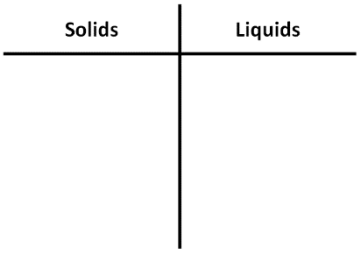
Science – Grade 2
March 30 - April 10, 2020 – Week 1

Thursday – 30-45 minutes	
Activity / Task	**Classify Objects as Solid or Liquid** **To access this interactive lesson, visit: https://tinyurl.com/HISDGrade2Day3** Objective: Classify objects based on whether they are solid or liquid. Think About It! How do you describe solids and liquids? Do It! What you need: • Water bottle • Pencil • Juice box • Book • Cotton ball • Thawed popsicle in plastic covering • Sponge • Dish soap • Science notebook or sheet of paper  Created by HISD Curriculum using Microsoft Office What to do: • Set the objects on a table. • Pour liquids into different containers and observe and draw the shape. • Draw a T-chart in your notebook and record your observations of the liquids on the chart. • Explore the objects that are solid and discuss how they are alike and different. • Record your observations of the solids on the T-chart. Understand It! Solids take up space and have a definite shape.  Image by Hebi B. from Pixabay Liquids take up space and take the shape of their container.  Image by Boris Trost from Pixabay Understand It! Journal Reflections: Choose one solid and one liquid that you observed. Describe the differences between a solid and a liquid. *A solid is different from a liquid because* _____. *A liquid is different from a solid because* _____.
Resources	Guided activity using Google Slides

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Science – Grade 2
March 30 - April 10, 2020 – Week 1

Friday – 30-45 minutes	
Activity / Task	**Observe Forms of Energy** **To access this interactive lesson, visit https://tinyurl.com/HISDGrade2Day4** Objective: Identify and explore forms of energy. Think About It! What are the sources of heat, light, and sound energy you find inside and outside of your home? Do It! What you need: • Notebook or a sheet of paper • Pencil What to do: • Create a "Forms of Energy" entry in your notebook. • Take a learning walk inside of your house, outside of your home, at the park, etc. • Record each source of energy you see and how it is used. Example: The stove is a source of heat energy. We use it to warm our food. The alarm clock is a source of sound energy. We use it to help us wake up for school.  Image by Alexas_Fotos from Pixabay Understand It! • The sun is one source of **heat** energy. • A flashlight is one source of **light** energy. • A guitar is one source of **sound** energy. Apply It! Journal Reflections: Choose one form of energy that was explored. Describe what a day would be like without that form of energy. *A day without _____ energy would be _____.*
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Science – Grade 2
March 30 - April 10, 2020 – Week 2

Monday – 30-45 minutes

Activity / Task

Matter Can Change
To access this interactive lesson visit: https://tinyurl.com/HISDGrade2Day5

Objective: The student will demonstrate and record ways they can change the physical properties of materials.

Think About It!
What are ways we can change the physical properties of materials? If possible, discuss your ideas with someone in your home.

Do It!
What you need:
- Science notebook or sheet of paper
- Various objects such as: chalk, popsicle stick, plastic knife or spoon, scrap paper, scissors, sandpaper or molding clay

What to do:
- Create a "Matter Can Change" chart in your notebook.
- Observe your materials and think about how you can change their physical properties.
- Make and record a prediction about how the each of the objects' properties can be changed.
- Explore tools you can use (scissors, sandpaper, plastic knife) to change the way the objects look and record the results of your change.

Matter Can Change

Object	Prediction	Results

Understand It!
The physical properties of matter can be changed by:
- Cutting
- Sanding
- Folding
- Melting

Go back to your chart. Did you change the physical properties of your matter by cutting, sanding, folding, or melting?

Apply It!
Journal Reflections: Choose one of the materials that was explored. Explain how you can change the physical properties of the material.

I can change the physical properties of _____ *by* _____.

Resources

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Science – Grade 2
March 30 - April 10, 2020 – Week 2

Tuesday – 30-45 minutes

Activity / Task

Weather Patterns
To access this interactive lesson, visit: https://tinyurl.com/HISDGrade2Day6

Objective: The student will create a bar graph to compare daily temperatures.

Think about it!
How is a thermometer used to determine the temperature of the air outside?

Do It!
What you need:

- Thermometer
- Science Notebook or Sheet of paper
- Pencil

What to do:

- Create a simple table to record temperature of the next 3 days [in degrees Celsius].
- Each day check the thermometer and record the temperature outside. For accurate results, record the temperature at the same time each day.
- After three days, create a bar graph to record and compare your temperatures.

Day	Time	Temperature (Celsius)
Monday		
Tuesday		
Wednesday		

Understand it!
When reading the thermometer, the higher the temperature is the warmer or hotter it is outside. The lower the temperature is, the cooler it is outside.

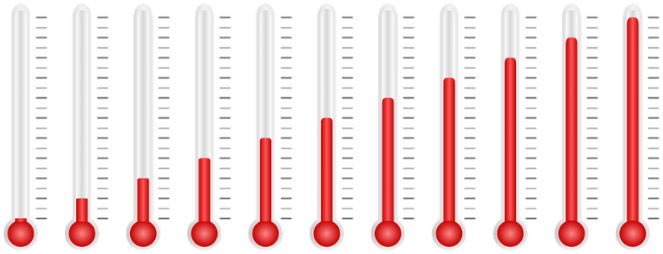

Image by Wynn Pointaux from Pixabay

Apply It!
Journal Reflections: Choose one of the days in which you recorded the temperature outside and describe how it looked and felt outside on that day.

What role does the temperature outside play in the activities you do outside?

Resources

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March 30 - April 10, 2020 – Week 2

Wednesday – 30-45 minutes

Activity / Task

Observing the Moon
To access this interactive lesson, visit: https://tinyurl.com/HISDGrade2Day7

Objective: Observe, describe, and record patterns of the Moon.

Note: This activity will work best at night, if time is available. If not, or if it is too cloudy to see the moon, there are websites that will show the appearance of the Moon in the sky. StarDate: Moon Phases shows a lunar calendar where students can see the changes in the appearance of the moon each evening. https://stardate.org/nightsky/moon

Think About It!
How does the moon look different each night? If you can, discuss this question and share your thinking with someone in your home.

Do It!
What you need:
- Science Notebook
- Sheet of paper
- Pencil

What to do:
- Create a Moon Journal to chart the appearance of the Moon in the sky each night. It can be created from blank calendar, or by creating a table.

Monday	Tuesday	Wednesday	Thursday	Friday

- Draw what the moon looks like in the sky each night. Label any full or new moons.
- Make a prediction about how you think the moon will look like on the next night, a week from then, and a month from then.

Understand It!

Four basic phases of the Moon: (begin with the new moon and move clockwise)	
 **New Moon:** The moon is between Earth and the Sun, so the moon is not visible	 **First Quarter:** Only half of the moon is visible.
 **Last Quarter:** Only half of the moon is visible.	 **Full Moon:** The moon is fully visible.

Moon Phases derived from one image: Image by Clker-Free-Vector-Images from Pixabay

Apply It!
Journal Entry: Write about your observations and what you learned about the Moon. In your writing, use the words patterns, phases, the Sun, Full Moon, and New Moon.

Resources

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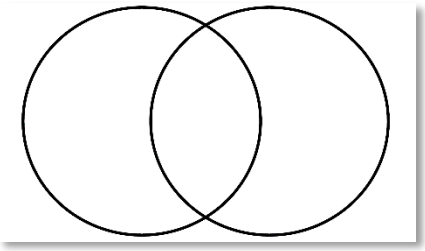
Thursday – 30-45 minutes	
Activity / Task	**Observing and Comparing Rocks** **To access this interactive lesson, visit: https://tinyurl.com/HISDGrade2Day8** Objective: Observe, describe, and compare rocks. Think About It! How can we compare rocks? If you can, discuss this question and share your thinking with someone in your home. Do It! What you need: • A collection of rocks (can be from outside) • Science Notebook or sheet of paper • Pencil What to do: • Once you have collected rocks observe, draw, and describe the rocks in your notebook or on a sheet of paper. Use words such as *size, color, texture, and shape* to describe your rocks. • After you describe the rocks in your collection, sort the rocks by different properties. You can sort by size, texture, color, or shape.  Image by Jan Haerer from Pixabay Understand It! There are specific words we can use when describing the properties of rocks. • Size: big, small, tiny, huge, large… • Shape: round, square, oval, oblong… • Color: brown, black, white, gray, dark specks… • Texture: rough, smooth, jagged… Go back to your rock descriptions. Add some of these words to your descriptions if they are not already included. Apply It! Journal Entry: Select two rocks and create a Venn diagram to compare them. Below the Venn diagram, write about how the rocks are similar and how they are different.  Venn diagram by HISD Curriculum using Microsoft Office
Resources	Guided Activity using Google slides

Friday
Spring Holiday

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