## **HISD** Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

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

At a Glance

Science – Grade 5

Monday	Tuesday	Wednesday	Thursday	Friday
April 27	April 28	April 29	April 30	May 1
<b>Objective:</b> Classify matter based on multiple physical properties.	<b>Objective:</b> Use graphic organizers and data tables to record properties of materials.	<b>Objective:</b> Draw conclusions about the physical properties of various materials.	<b>Objective:</b> Demonstrate that light is reflected when it strikes a shiny object that it cannot travel through.	<b>Objective:</b> Demonstrate that light is refracted when it travels from one medium to another.
<b>Overview:</b> Students will find four objects in their home to classify by their physical properties and create a chart to collect their observations.	<b>Overview:</b> Students will find an object at home and create a graphic organizer to record all the physical properties of the item.	<b>Overview:</b> Students will be given different types of materials and based on their physical properties choose which material would be best to use to construct a boat.	<b>Overview:</b> Students will identify which objects in their house are reflective.	<b>Overview:</b> Students will explore how water can refract objects while oil does not refract or bend the light.
Monday	Tuesday	Wednesday	Thursday	Friday
May 4	May 5	May 6	May 7	May 8
<b>Objective:</b> Compare objects that reflect and refract light.	<b>Objective:</b> Recognize how wind can change Earth's landscape through weathering, erosion, and deposition.	<b>Objective:</b> Recognize how water can change Earth's landscape through weathering, erosion, and deposition.	<b>Objective:</b> Recognize how ice can change Earth's landscape through weathering, erosion, and deposition.	<b>Objective:</b> Recognize how the force of weathering, erosion, and deposition change Earth's landscape.
<b>Overview:</b>	<b>Overview:</b>	<b>Overview:</b>	<b>Overview:</b>	<b>Overview:</b>
Students will create a chart of	Students will observe a	Students will create a model	Students will create a model	Students will create a chart of
the objects that reflect and	picture of a sand dune and	of land and how water can	of land and use an ice cube	the agents of erosions and
refract in their homes.	label the parts of weathering,	slowly change the surface of	to model how glaciers can	the landforms they slowly



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HISD	<b>Elementary Curric</b> INSPIRING TEACHING, IGNITING LITERACY & 2019-2020 HISD @ H.O.M.E. – Dista Science – Grade 5 April 27 - May 8, 2020 – Week 1			d De	velo	opme	ent
	Monday – 30-45	minutes					
Activity / Task	Physical Properties of Matter						
	To access this interactive lesson, visit <u>https://tinyurl.com/HISDGrade5Day19</u>						
	Objective: Classify matter based on multiple p	physical pr	operties.				
	Think About It! Choose an object in your home and look at it closely. Describe the object using as many properties as possible. If possible, share your response with someone at home!						
	Do It!What you need:JournalPencilFour different objects from your home						
	What to do:	Object	Color	Physical	Is Attract		
	<ul> <li>Find four different objects in your home</li> </ul>			State	to Magne	ets in Wa	ater
	and examine them closely.						
	Copy the table you see here in your						
	<ul><li>journal.</li><li>Fill out the table using information you</li></ul>					ulum using Microsof	
	gather about the objects. <u>Understand It</u> We can classify objects based on their physical groups based on characteristics we can obser <u>Yellow,</u> white, red, black, & brown <u>Inage by ske</u> <u>12 inches in</u> <u>Apply It!</u> A student wanted to classify the following	ve and me	Roure suc	ch as size,			into
	four objects below based on physical propertie	es.		Phys	sical Prope	ties	<u>.</u>
	Aluminum washer wire		Materials	Insulate Thermal Energy?	Float in Water?	Conduct Electrical Energy?	tests with permission
	washer wire g		1	Yes	No	No	ease té
			2	No	No	Yes	TEA rel
	Rubber Piece of ball cardboard		3	Yes No	Yes No	No Yes	© mo
	The student uses the questions shown in the t		st each ob		110	165	Image from © <u>⊺E</u> A release
Design	What do you think each material could be? Jus	stify your a	answer.				
Resources	Guided Activity Using Google Slides						

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HISD	<b>Elementary Curriculum and Development</b> INSPIRING TEACHING, IGNITING LITERACY & LEARNING. 2019-2020 HISD @ H.O.M.E. – Distance Learning Science – Grade 5
	April 27 - May 8, 2020 – Week 1
Activity / Task	Tuesday – 30-45 minutes Physical Properties of Matter
/ touring / Facilit	
	To access this interactive lesson, visit <u>https://tinyurl.com/HISDGrade5Day20</u>
	Objective: Use graphic organizers and data tables to record properties of materials.
	Think About It!         Look at this picture of sand. What are the physical properties of sand?         If possible, share you answer with someone in your home!         Do It!         What you need:         • Journal         • Pencil or pen
	One object from your home
	What to do:       Object         • Find an object in your home.       Image: Color for the physical State for the physical properties of the object in your graphic organizer.       Color for for the physical State for the physical properties of the object in your graphic organizer.         Understand It!       Objects have physical properties that can be seen and measured. These properties include mass, magnetism, physical state (solid, liquid, gas), thermal and electrical conductivity, relative density, and solubility. Graphic organizers and tables allow us to organize information about physical properties of matter and show us patterns and relationships.         Apply It!
	The table lists some properties of four different samples of matter.
	Sample     State of Matter at Room Temperature     Color     Attracted to Magnet?     Conducts Electricity?
	1SolidClearNoNo2SolidSilverYesYes
	3 Liquid Clear No Yes
	4 Liquid White No Yes Image from @TEA release tests with permission.
	Which of these samples could be glass? Which sample could be saltwater? Explain your answer.         Image by Devanath from Pixabay
Resources	Guided Activity Using Google Slides



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HISD	Elementary Curr INSPIRING TEACHING, IGNITING LITERAC 2019-2020 HISD @ H.O.M.E. – Di Science – Grade 5 April 27 - May 8, 2020 – Week 1			elopment	
	Wednesday – 3	0-45 minutes			
Activity / Task	Physical Properties of Matter				
	To access this interactive lesson, visit	https://tinyurl.com	n/HISDGrade5Day(	<u>)21</u>	
	Objective: Draw conclusions about the ph	ysical properties of	various materials.		
	Think About It!         Think about the pencil you are holding.         Do you think it is soluble in water?         Do you think it is attracted to a magnet?         If possible, share your answers with someone in your home!				
	Do It!	Material	Picture	Descriptions	
	<ul><li>What you need:</li><li>Journal</li><li>Pencil or pen</li></ul>	Cork	Image by Alicia from Pixabay	Light brown Has small holes Floats in water	
	<ul> <li>What to do:</li> <li>Imagine you wanted to build a boat.</li> <li>Use the descriptions of each material from the table to help you decide whic</li> </ul>	Marble	hage by InspiredImages from Pixabay	Blue Shiny Sinks in water	
	<ul> <li>material to use to build your boat.</li> <li>Use the sentence stem below: <ul> <li>I would use the</li></ul></li></ul>	Wood Cube	hage by Hans Braxmeler from Pixabay	Light brown Not attracted by a magnet Floats in water	
			nage by <u>Shutterbug75</u> from <u>Pixabay</u>	Black Sinks in water Not attracted by a magnet	
	We can draw conclusions about the use of various materials based on their physical properties. In the activity, you chose the material that floated in water. Another component of your boat is electricity. A metal like copper is a flexible material that conducts electrical energy. Plastic is also a flexible material, but it is an excellent insulator of electrical energy. Electrical wires in boats are often made of copper and coated in plastic. The copper is to ensure that the appliances on the boat work, and the plastic is to protect against the dangers of electricity.				
	<u>Apply It!</u> The table lists some physical	Object 1		Object 2	
	properties of two objects.	Solid	Solid	-	
	Based on their properties, which of the objects is most likely a metal? Explain	Insulates thermal ene		Conducts thermal energy	
		Less dense than water Poor electrical conduct		se than water trical conductor	
	your thinking.		Image from ©TEA release tests w		
				na <u>pomilosiui</u> .	
Resources	Guided Activity Using Google Slides				



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HISD	<b>Elementary Curricul</b> INSPIRING TEACHING, IGNITING LITERACY & LEA 2019-2020 HISD @ H.O.M.E. – Distance Science – Grade 5 April 27 - May 8, 2020 – Week 1	e Learning		Deve	elop	ment
	Thursday – 30-45 m	inutes				
Activity / Task	Reflection					
	To access this interactive lesson, visit <u>https://</u>	tinyurl.com	/HISDGra	ade5Day2	2	
	Objective: Demonstrate that light is reflected when through.	n it strikes a	shiny obj	ect that it	cannot tra	avel
	<u>Think About It!</u> Look in the mirror. What do you see? Why do you If you can, discuss this question and share your th					n?
	Do It! What you need: • Journal • Pencil or pen					
	<ul> <li>What to do:</li> <li>Walk around your home and find 3 shiny obje allow you to see your reflection.</li> <li>Identify the source of light that is allowing you reflection.</li> <li>Describe the object as shiny or not shiny and not smooth</li> <li>Create the chart to your right in your journal to</li> </ul>	to see a smooth or	Object	Source of light Table by HISD Cur	Shiny or not shiny	Smooth or not smooth
	Understand It!					
	Objects that Reflect Light	Reflection is a (shiny a	-	t traveling in oth) surface	-	
	Shiny metal knife					
	Bicycle reflector		$\backslash$			
	Stainless steel pan					
	Aluminum Foil	Im	nage by <u>Klaus-Deit</u>	<u>er Keller</u> from <u>Wikim</u>	nedia Commons	
	<u>Apply It!</u> Journal Entry: Look at the image of the tree next t the sentence stem. Reflection is caused by light is		-			Image by <u>Bessi</u> from <u>Pixabay</u>
Resources	Guided Activity Using Google Slides					



## HISD Elementary Curriculum and Development 2019-2020 HISD @ H.O.M.E. – Distance Learning Science – Grade 5 April 27 - May 8, 2020 - Week 1 Friday – 30-45 minutes Activity / Task Refraction To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day23 Objective: Demonstrate that light is refracted when it travels from one medium to another. Think About It! Look at the image to the right. What changed? Why do you think the bananas look different behind the pitchers of water? If you can, discuss this question and share your thinking with someone in your home! Image by Steve Buissinne from Pixaba Do It! What you need: Air Journal • Cooking Oil • Clear glass or container Water • Water Straw . 1/2 cup measuring cup . Curriculum usina iPhone Cooking oil (or dish soap, syrup, or honey) • What to do: Fill the glass or container with ½ cup of water and ½ cup of cooking oil (or other liquid). • Allow the oil and water to separate. • Place the straw into the glass or container so that it touches the bottom. • Draw a picture in your journal of what you see. Consider the following questions. What does the • straw look like in the water and cooking oil? Why do you think it looks like this? Understand It! Light energy travels in a straight line until it strikes an object or passes through matter such as air, glass, and water. Refraction is the bending of the light as it passes into another material or medium of different density such as water or air. Refraction allows objects to look bigger or appear closer than what they really are. The images below are examples of refraction. Image by Reimund Bertrams from Pixabay Image by slightly\_different from Pixabay Image by OpenClipart-Vectors from Pixabay Apply It! Journal Entry: Look at the image to the right. Create the table in your journal and put checks in the boxes under the reasons for the appearance of the girl's eye through the lens. Explain your thinking in your journal using the words refract, transmit, lens, bend, and light. The lens caused Light traveled in The lens Refraction magnified the the light to a straight line. occurred through reflect. object. the lens. Image from ©TEA release tests with pe Table by HISD Curriculum using Microsoft Office Resources Guided Activity Using Google Slides

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HISD	2019-2020 HIS Science – Gra	D @ H.O.M.E. – Distance Learni	and Development
A stirity / Tesle	Deflection and De	Monday – 30-45 minutes	
Activity / Task	Reflection and Re	raction	
	To access this in	teractive lesson, visit <u>https://tinyurl.co</u>	m/HISDGrade5Day24
	Objective: Compar	e objects that reflect and refract light.	
	encounters materia	es the behavior of the light ray as it al 1 and material 2? material 1 and in material this question and share your thinking wit ome!	Light ray Material 1 Image from ©TEA release tests with permission
	Do It! What you need: Journal Pencil or pen What to do:	Reflection Refracti	
	<ul> <li>Create a T-chart in your journal like the one above and write the descriptions from the bulleted list under reflection or refraction.</li> <li>         Prism         <ul> <li>Prism</li> <li>Surface of Water</li> <li>How your leg appears underwater in the swimming pool</li> <li>Aluminum Foil</li> </ul> </li> </ul>		
	Understand It!	Deflection	Defrection
	Comparison Figure	Reflection	Refraction
		Image by HISD Curriculum	Image by HISD Curriculum
	Light	Bounces off the surface and changes	Passes through the surface and
	Medium	direction. Light bounces off of the medium.	bends. Light travels through one medium to another.
	reflection and refra		
Resources	Guided Activity Usi	ng Google Slides	

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	April 27 - May 8, 2020 – Week 2
	Tuesday – 30-45 minutes
Activity / Task	Landforms - Wind
	<i>To access this interactive lesson, visit <u>https://tinyurl.com/HISDGrade5Day25</u> Objective: Recognize how wind can change Earth's landscape through weathering, erosion, and</i>
	Objective: Recognize now wind can change Lattr's landscape through weathening, erosion, and deposition. <u>Think About It!</u> How do you think this landform was created? Do you think this landform was created over time or quickly? If you can, discuss these questions
	with someone in your home! Do It! What you need: • Landform picture • Journal or paper • Pencil or crayons
	<ul> <li>What to do:</li> <li>Look at the picture of the Sand Dune.</li> <li>Draw a picture of this landform in your journal.</li> <li>Label the sand, wind and sediments in your picture.</li> <li>Complete this sentence stem: <u>The</u> <u>moved the sand and</u> <u>moved the sand and</u> <u>moved</u> <u>wind</u> <u>sediments</u></li> </ul>
	over time created a         (Use these words to fill in the blanks: sand dune, wind, sediments)         Understand it!         Weathering is the process of breaking down rocks, soils, and their minerals. Sediments are the small pieces of rock that have been broken down. Erosion is the moving of weathered sediment. Deposition occurs when the sediment is deposited or placed in a new location. Wind erosion is wind blowing away soil, sand, or any substance that is light enough for the wind to carry it and deposit it at a different location. Wind takes many years to weather landforms and create a sand dune.
	<ul> <li>Apply It!</li> <li>Draw the graphic organizer below in your notebook.</li> <li>In the weathering box, draw rocks being broke down.</li> <li>In the erosion box, draw the wind blowing the sand and other sediments</li> <li>In the deposition box, draw the sand and rocks dropping down in a new location. Draw the sand dune that was created by these processes.</li> </ul>
Resources	Graphic Organizer by HISD Curriculum using Microsoft Office



HISD	<b>Elementary Curriculum and D</b> INSPIRING TEACHING, IGNITING LITERACY & LEARNING. 2019-2020 HISD @ H.O.M.E. – Distance Learning Science – Grade 5 April 27 - May 8, 2020 – Week 2	evelopment
Activity / Task	Wednesday – 30-45 minutes Landforms – Water	
Activity / Task		
	To access this interactive lesson, visit <u>https://tinyurl.com/HISDGrade</u>	e5Day26
	Objective: Recognize how water can change Earth's landscape through we deposition.	veathering, erosion, and
	Think About It! How are landforms changed by moving water? How do ocean waves change the Earth's surface? If you can, discuss these questions with someone in your home!	
	<u>Do It!</u> What you need:	Image by PublicDomainPictures from Pixabay
	<ul> <li>Plate (paper, Styrofoam, kitchen plate)     *Get permission if you must use a plate from the kitchen</li> <li>Water</li> <li>Soil and rocks from outside</li> <li>Cup</li> <li>Journal or paper</li> <li>Pencil or crayons</li> </ul> What to do: <ul> <li>Pack the upper end of the plate with moist soil.</li> <li>Use your finger to create a narrow riverbed in the surface of the soil.</li> <li>Place rocks along the top of the riverbank.</li> <li>Pour water very slowly at the top of the river located at the upper end</li> <li>Make and share observations.</li> </ul>	<image/>
	Understand it!You have created a landform called a river delta! Erosion includes the trade by flowing water. Deposition occurs when particles moved by erosion are new landform. Running water that comes in the form of a flood causes drasurface in comparison to a river that may cause land to widen over years.landforms such as canyons and river deltas to form. When deltas are form and move in water down the river. The rocks and soil get dropped off at tImage by $\underline{\mathbb{H}}$ from Pixabay	dropped off and build a astic changes on the land's Water erosion causes ned, rocks and soil float he mouth of the river.
	Canyon River De	elta
	<u>Apply It!</u> Journal Entry: Write what your setup above represents (You made a mod that you are one of the rocks at the top of the riverbed. Write what proces the river and what you were floating in down the river. Also, write where y end of your journey. Explain using the words: weathering, erosion, deposi	s transported you down ou were dropped off at the
Resources	Guided Activity using Google Slides	
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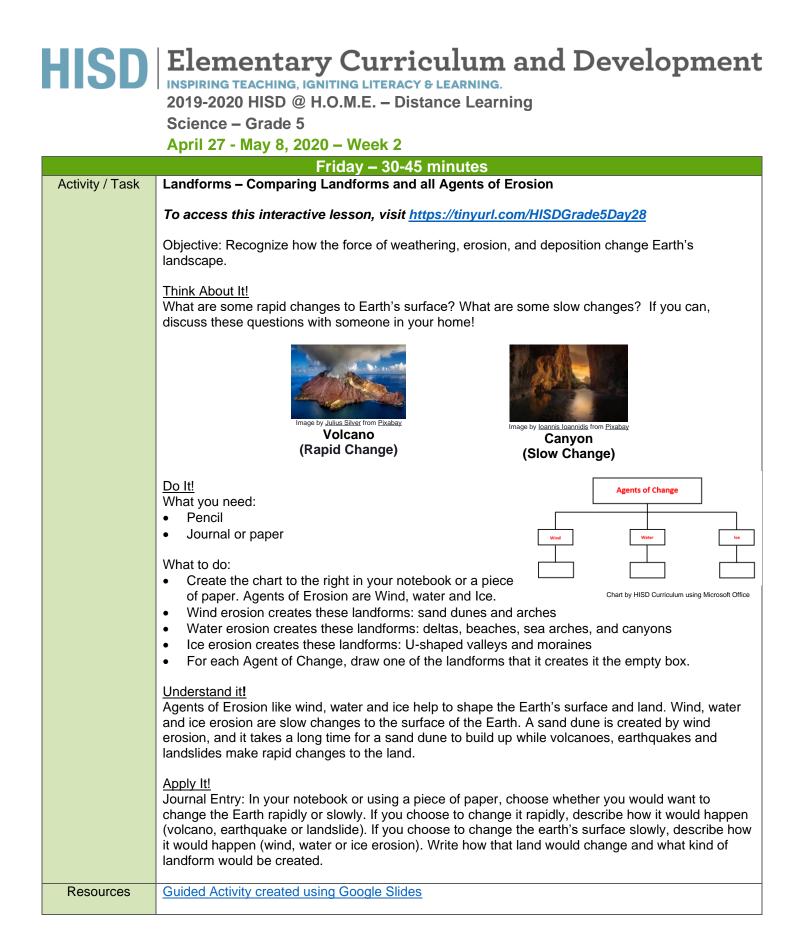


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HISD	Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING. 2019-2020 HISD @ H.O.M.E. – Distance Learning Science – Grade 5 April 27 - May 8, 2020 – Week 2
Activity / Task	Thursday – 30-45 minutes Landforms – Ice
Activity / Task	Landforms - Ice         To access this interactive lesson, visit <a href="https://tinyurl.com/HISDGrade5Day27">https://tinyurl.com/HISDGrade5Day27</a> Objective: Recognize how ice can change Earth's landscape through weathering, erosion, and deposition.         Think About It!         A glacier is a large accumulation of ice that moves downhill by the force of gravity. Which landforms could be formed by glaciers? How do glaciers change the Earth's surface? If you can, discuss these questions         What someone in your home!         Do It!         What you need:         • Plate (paper, Styrofoam, kitchen plate)         * Get permission if you must use a plate from the kitchen         • Ice cubes         • Soil and rocks from outside         • Journal or paper         • Pencil or crayons         What to do:         • Place a small amount of the pan with moist soil.         • Apply force on the top of the ice cube as you push it across the layer of soil.         • Apply force on the top of the ice cube as you push it across the layer of soil.         • Make and share observations.         Understand it!         Weathering is the breaking down of rock. Erosion is the carrying away if this rock. Deposition is when the rock is dropped off in a new location. Glaciers can also be agents of erosion/deposition.         tce an change the Earth's surface through glaciers that are considered to be rivers of ice that slowly move and erode the land a
Resources	Mage by Pexels from Pixabay         Apply It!         Journal Entry: Create your very own comic strip. Tell the story of a glacier (you can give your glacier a name) and its journey in making a u-shaped valley. Describe how the glacier eroded the land and how it scraped the surface over many years.         Guided activity using Google Slides



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