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 17
Objective: Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components.	Objective: Describe the flow of energy within a food web.	Objective: Predict the effects of changes to ecosystems caused by living organisms.	Objective: Predict the effects of changes to food webs caused by living organisms and natural events.	Objective: Identify fossils as evidence of past living organisms and the nature of the environment.
Overview: Students will observe a small area outside and list all the living and nonliving things they see. Then, they will observe a given environment and describe how the living and nonliving things interact.	Overview: Students will create food webs given information about different organisms in an environment, Then, they will describe the transfer of energy in a food web.	Overview: Students will determine how the placement of a highway in a forest would affect the ecosystem. Then, they will analyze a scenario and determine how overgrowth of an organism would affect an ecosystem.	Overview: Students will observe a food web and describe how the food web would be affected by an event that removes an organism from the web.	Overview: Students will observe images of fossils and determine what the environment was like during the time each fossil was alive.
Monday April 20	Tuesday April 21	Wednesday April 22	Thursday April 23	Friday April 24
Objective: Compare the structure and functions of organisms.	Objective: Students will compare the structure and function of organisms.	Objective: Identify and describe inherited traits of organisms.	Objective: Identify and describe learned behaviors of organisms.	Objective: Explore life cycles of different animals.
Overview: Students will observe plants near their home, identify adaptations that the plants have, and compare their adaptations.	Overview: Students will identify adaptations of animals through images. Then they will determine the function of the animal adaptations they discovered.	Overview: Students will analyze images and identify inherited traits of the organisms in the images. Then, they will identify inherited traits in an observation table and justify their thinking.	Overview: Students will identify examples of inherited traits and learned behaviors in organisms and justify their thinking.	Overview: Students will illustrate and compare the life cycles of a beetle and a frog. Then, they will compare the life cycles of a butterfly and a lady beetle.

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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 13-24, 2020 – Week 1
	Monday – 30-45 minutes
Activity / Task	Living and Nonliving Interactions in an Ecosystem
	To access this interactive lesson, visit https://tinyurl.com/HISDScienceGrade5Day09
	Objective: Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components. Think About It! Think about the living things and nonliving things you see in the picture. If you can, share your thinking with someone in your home. Do It! What you need: • Space outside • Hand lens (optional) • Science Notebook or paper What to do: • Go outside and find a small space (about 1-foot by 1-foot square) near the base of a tree in the grass to observe. Use a hand lens if you have one. If not, just observe the space. • Make a t-chart like the one to the right and list every living organism and nonliving things as well as other living things for survival. Living and nonliving things some terms:
Resources	environment.
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HISD	Elementary Curriculu INSPIRING TEACHING, IGNITING LITERACY & LEARNA 2019-2020 HISD @ H.O.M.E. Distance Lea Science – Grade 5 April 13-24, 2020 – Week 1	m and Development		
	Tuesday – 30-45 minut	es		
Activity / Task	Energy Flow in Food Webs			
	To access this interactive lesson, visit <u>https://tiny</u>	url.com/HISDScienceGrade5Day010		
	Objective: Describe the flow of energy within a food w	veb.		
	Think About It! Image: Caterpillar in the picture to the right. What do you think the picture illustrates? Image: Caterpillar in the picture illustrates?			
	If possible, share your responses with someone in you	ur home.		
	Do It! What you need:	Mongoose Snake Snake Leaf to Mongoose Food Chain by Sivavula Education is licensed under <u>CC BY 2.0</u>		
	Food web cards (right) Science potebook or paper	Food Web #1		
	 Science notebook or paper Pencil What to do: Analyze the two food web cards below and 	Seaweed is a producer		
		Leopard seals and penguins are consumers of squid		
		Squids consume crabs		
	draw a food web for each set using the	of penguins		
	information given.	Bacteria feed on whales when they die		
	 Make sure to label illustrations and use arrows to show the flow of energy for each 			
	food web.	Food Web #2		
		Mushrooms are decomposers		
		Grass uses sunlight to create its food		
		Rabbits and grasshoppers consume grass		
		Mountain lions feast on rabbits and snakes		
	Understand It!	Snakes eat rabbits		
	organism to another in an ecosystem. All energy in food chains originates from the Sun and is then stored by producers (plants) and passed on to consumers (animals). Food webs consist of many food chains that connect to one another.	d at Red-tailed hawks Snowshoe hares Shrews Shrews		
		Willows White spruces		
	Write a statement that correctly describes the transfer	of energy from a producer to two different		
	consumers.	to		
Resources	Guided Activity Using Google Slides	i		



HISD	Elementary Curriculu INSPIRING TEACHING, IGNITING LITERACY & LEARN 2019-2020 HISD @ H.O.M.E. Distance Lea Science – Grade 5 April 13-24, 2020 – Week 1	m and De	evelopment		
	Wednesday – 30-45 min	utes			
Activity / Task	Effects of Changes in Ecosystems				
	To access this interactive lesson, visit <u>https://tiny</u>	url.com/HISDScience	eGrade5Day011		
	Objective: Predict the effects of changes to ecosyster	ns caused by living or	ganisms.		
	Think About It! Think about the effects of a wildfire in a forest. What organisms might be affected by the fire? What will the surviving organisms do to survive? If you can, discuss these questions and share your thinking with someone in your home.				
	Do It! What you need: • Science notebook or paper				
	Pencil	Draw a picture of a forest	Draw a picture of the forest with the new		
	 What to do: The highway department is planning on constructing a highway through a wooded forest area. Draw a table to show what the forest would look like before and after the building of the highway. How do you think the building of this highway will likely impact the plants and animals in the forest? Answer this question below the table. 		highway included		
	Understand It! Changes in an ecosystem are dependent upon various factors including human activity. The development of new buildings and communities causes ecosystems to change in size and population since the food source and habitats of organisms are depleted. These organisms mu find other areas to live in order to maintain their existence.				
	Apply It! The giant salvinia, a floating fern from Brazil, is one of the most problematic aquatic plants in Texas. It damages aquatic ecosystems by outgrowing native plants that provide food and habitat for native animals. Think of at least two effects the rapid growth of giant salvinia will most likely have on an ecosystem. Use the following stem to record your response.				
	and	are ty	wo effects the giant		
	salvinia will have on an ecosystem.				
Resources	Guided Activity Using Google Slides				



HISD Elementary Curriculum and Development

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

Science – Grade 5

April 13-24, 2020 - Week 1



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		Friday – 3	30-45 minutes		
Activity / Task	Fossil Evidence To access this i	-Environments nteractive lesson, v	isit <u>https://tinyurl.com/HISDC</u>	Grade5Day013	
	Objective: Identi	fy fossils as evidence	e of past living organisms and t	he nature of the environment.	
	Think About It! What do fossils tell us about past living organisms and the nature of the environments where they lived? If you can, discuss this question and share with someone at home.				
	Do It! What you need: Image by falco from Pixabay • Pictures of fossilized fish and other fossilized organisms Image by falco from Pixabay • Science notebook or paper • Pencil or crayons				
	 What to do: Using your phone or home computer, search for pictures of fossilized organisms. If a phone or home computer is not available, look at the images on this page. You can also go outside see if you can find any other fossils 				
	Create a table to organize your data and information about the fossil.				
	What kind of fossil?	Where was the fossil found?	What kind of environment d you think it lived in?	•	
	Understand it!			Image by <u>Wikimedialmages</u> from <u>Pixabay</u>	

- If a fish fossil was found in desert, what you can infer about the area? (It might have been covered by a lake or ocean a one point in time.)
- If a fossil was found with large flat teeth, what clue can you give about the environment? (There might have been a lot of vegetation, since herbivores have flat teeth.)
- If a skull was uncovered with sharp teeth, what can you infer? (Predators (carnivores) have sharp teeth to tear flesh, so the environment must have had other animals to eat.)

Apply It!

GLOBAL GRADUATE

Write a short paragraph and draw a picture of what you researched.





Image by PublicDomainPictures from Pixabay



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	Monday – 30-45 minutes	
Activity / Task	Plant Adaptations To access this interactive lesson, visit <u>https://tinyurl.com</u>	/HISDGrade5Day014
	Objective: Compare the structure and functions of organisms.	
	Think About It! What adaptations (structures and functions) help plants survive	e in a particular environment?
	Do It! What you need: Plants available to observe outside Science notebook or paper Pencil or crayons What to do:	
	 Go in your backyard or go for a walk and look for different plants. Identify adaptations such as thorns, leaf size, and shapes. Choose two different plants and record down their characteristics in your science notebook. Create the Venn diagram below to compare the two plants. Highlight which adaptations help the plants get sunlight for food, conserve water, be protected and get nutrients. 	Image by Dimitris Vetsikas from Pixabav
	Understand it! The leaves use sunlight to make food. The flower below to reproduce	Venn Diagram by HISD Curriculum Using Microsoft Office

The flower helps to reproduce.

Guided Activity Using Google Slides

The roots soak up the nutrients and water •

<u>Apply It!</u> Discuss with someone at home about the different adaptations the plants you chose have. Describe and write to explain how these adaptations are different from one another as well as how each adaptation helps its plant survive.

Image by analogicus from Pixabay



Resources

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	INSPIRING TEACHING, IGNITING LITERACY & LEARNING.					
	2019-2020 HISD @ H.O.M.E. Distance Learning					
	Science –	Grade 5				
	April 13-2	4, 2020 – Week 2				
	-	Tuesday	– 30-45 m	inutes		
Activity / Task	Animal Ada	otations				
	To access this interactive lesson, visit <u>https://tinyurl.com/HISDGrade5Day15</u>					
	Objective: St organisms.	udents will compare the	structure ar	nd function of		
	Inink About It! Look at the picture of a lion. What adaptations (structures and functions) help this organism survive in its environment? If you can, discuss this question and share your thinking with someone in your home.					
	<u>Do It!</u>				The state	A MALE AND
	What you nee	ed:				Image by Alexas Fotos from Pixabay
	Anim Scier	al images (see below)				
	Bole Science Pence	il		ANIMAL	ADAPTATION	FUNCTION TO SUPPORT SURVIVAL
	What to do:					
	 wolf, snake, arctic bear, and fish. Think of an adaptation that each animal has and the function of that adaptation that supports survival. Record the animal, adaptation, and the function of the adaptation to support survival on a chart. 					
	Image by Barbara Finang Koro Pixabay Image by Aniza Finang Koro Pixabay Image by Aniza TOS Koro Pixabay </th <th>Image by christels from Pixabay</th>					Image by christels from Pixabay
	Ostrich	n Wolf	S	nake	Arctic Bear	Fish
	Understand it! Animals have many different adaptations that help them survive in their environment:					
	Getting Food The wolf has sharp teeth to help it eat meat.					
	Protection The arctic bear has oily feet to protect them					
	from freezing.					
	Water Conservation Snakes have scaly skin to prevent water loss.					
	Reproduction The shells around the bird eggs help protect their young until they are ready to hatch					



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Science – Grade 5

April 13-24, 2020 - Week 2





HISD	Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING. 2019-2020 HISD @ H.O.M.E. Distance Learning Science – Grade 5 April 13-24, 2020 – Week 2
	Wednesday – 30 - 45 minutes
Activity / Task	Inherited Traits To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day16 Objective: Identify and describe inherited traits of organisms. Think About It! Image: state and the effective region of the similarities
	Look at the adult and the offspring very closely. Describe the similarities and differences between the adult and the offspring. The adult and its offspring appear to have similar
	The adult and its offspring also appear to differ because Inherited Traits
	DO III What you need: teeth Images Images Pencil or pen
	 What to do: Look at the images of a horse and apple tree and circle the traits or features the organism inherited from their parents.
	 <u>Understand it!</u> Organisms have unique physical characteristics that are inherited which allow them to live and survive. Traits or characteristics passed on from parent to offspring are called inherited traits. Inherited characteristics are things such as hair color, the spines on a cactus or the shape of a beak. Traits that appear after birth such as haircuts and scars are acquired traits.
	A group of students makes observations about fish in a small aquarium.
	Journal Entry: Observations of Fish in an Aquarium
	Look at the list of observations of fish in an aquarium. Use the sentence stem below to respond to the question. 1. Most are about 10 cm long. 2. One of the fish looks sick. 3. Eight of the fish have black stripes. 4. Some fish can squeeze through small openings between rocks. 5. The fish swim to the surface when food is held over the water. 6. Some fish have wide tail fins. 1. Most are about 10 cm long.
	are inherited traits because
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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 13-24, 2020 – Week 2
	Thursday 20.45 minutes
	I nursday – 30-45 minutes
ACTIVITY / TASK	Learned Benaviors
	To access this interactive resson, visit <u>inters.//tinyun.com/misboradesbay m</u>
	Objective: Identify and describe learned behaviors of organisms
	Think About It! Look at the image. How does this person know how to read? If you can, discuss this question and share your thinking with someone in your home.
	Do It!
	What you need:
	Pencil Trait/Behavior Inherited or Explanation
	Science notebook or paper Learned?
	What to do:
	Draw the chart to the right in your notebook
	 Observe the images below. Decide which ones show inherited traits and which show
	learned behaviors and add them to your chart.
	• Think of some other inherited traits and learned behaviors and add those to your chart as
	well.
	 Explain why you think each trait/behavior is inherited or learned.
	Sabine Glass-Factor and the Characterian of the Charact
	a dog jumping a rabbit running a squirrel eating from a dog barking through a hoop a person's hand
	 <u>Understand it!</u> In the previous lesson, we learned all organisms have traits, or characteristics. These traits are inherited or passed down from parent to offspring. A behavior is the way an organism acts or what it does. Behaviors that a person or animal is not born knowing how to do are called learned behaviors. Riding a bike is a learned behavior. A person is not born knowing how to do it, Animals also have learned behaviors. A blue jay is a type of bird that must learn how to gather food by experience. Tricks that animals perform are learned behaviors.

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Science – Grade 5

April 13-24, 2020 - Week 2

	Apply It! Create the table in your journal. Identify each trait as an Inherited or learned. Explain your thinking.					
		Observations of Some Org	janisms			
	Trait Inherited or Learned?					
		Colt able to walk right after birth				
	Student texting a message					
		Spider spinning a web				
	Brown fur on a bear					
		Child using a fork to eat				
		Woman driving a car				
	Green leaves on a tree					
	Lion jumping through a hoop					
	Image from ©TEA release tests with <u>permission</u> .					
Resources	Guided Activity Using G	oogle Slides				



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HISD Elementary Curriculum and Development 2019-2020 HISD @ H.O.M.E. Distance Learning Science – Grade 5 April 13-24, 2020 - Week 2 Friday – 30-45 minutes Activity / Task Life Cycles To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day0018 Objective: Explore life cycles of different animals. Think About It! Look at the stages in the life cycle of a beetle and a frog. How are these life cycles alike and different? Use the sentence stems below to explain your thinking. They are alike because They are different because Life Cycle Images from 123 Science Fonts Do It! What you need: Lady Beetle Life Cycle Different pictures above of animal life cycles Science notebook or paper Pencil or crayons What to do: Observe the pictures above of the life cycle of a Frog Life Cycle beetle and a frog. Identify their stages and how their growth changes throughout the stages. Create the chart above to illustrate the stages for each organism. Understand it! Life Cycle Images by HISD Curriculum using Microsoft Office and 123 Science Fonts All animal life cycles contain the following stages: birth, growth, development, reproduction, and death. There is an amazing variety of life cycles within the animal world because different species undergo different changes.



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Science – Grade 5

April 13-24, 2020 - Week 2





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