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

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

At a Glance

Science – Grade 4

Monday April 13	Tuesday April 14	Wednesday April 15	Thursday April 16	Friday April 17	
<b>Objective:</b> Explore and illustrate the life cycles of plants and animals, such as beetles, lima beans, crickets, and radishes.	<b>Objective:</b> Compare the life cycles of plants and animals, such as beetles, lima beans, crickets, and radishes.	<b>Objective:</b> Describe the role of producers in a food chain.	<b>Objective:</b> Describe how consumers obtain energy.	<b>Objective:</b> Identify and describe the flow of energy in a food chain.	
<b>Overview:</b> Students will illustrate and label the life cycles of a beetle and a lima bean. Then, they will describe the changes that each goes through in their life cycle.	<b>Overview:</b> Students will compare the life cycles of beetles, lima beans, frogs, and tomato plants. Then, they will write about their comparisons.	<b>Overview:</b> Students will go on a scavenger hunt outside to find producers (plants). Then, they will explain how producers get their energy.	<b>Overview:</b> Students will explore the sources of energy for the foods they eat. Then, they will create a folding model to describe the different kinds of consumers (herbivore, carnivore, omnivore).	<b>Overview:</b> Students will determine the sources of energy from the food they eat and create a food chain tracing from a producer to themselves. Then, they will describe how energy flows in a food chain.	
Monday April 20	Tuesday April 21	Wednesday April 22	Thursday April 23	Friday April 24	
<b>Objective:</b> Connect food chains to make models of food webs.	<b>Objective:</b> Predict how changes in a food web affect the ecosystem.	<b>Objective:</b> Identify inherited traits in plants.	<b>Objective:</b> Understand that some behaviors are learned as an organism grows and develops.	<b>Objective:</b> Identify adaptations in plants and animals.	
<b>Overview:</b> Students will observe a food web and illustrate the different food chains within	Overview: Students will brainstorm a list	<b>Overview:</b> Students will observe plants	<b>Overview:</b> Students will brainstorm a list	Overview: Students will identify the	



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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 4 April 13-24, 2020 - Week 1 Monday – 30-45 minutes Activity / Task Life Cycles To access this interactive lesson, visit https://tinyurl.com/HISDGrade4Day9 Objective: Explore and illustrate the life cycles of plants and animals, such as beetles, lima beans, crickets, and radishes. Think About It: What are some changes we observe as organisms grow? What are some changes that happen to us as we grow? If you can, discuss this question and share your thinking with someone in your home. Do It: What you need: Pencil Science notebook/paper Markers/colored pencils What to do: Illustrate the life cycle of a beetle. • Label each stage of the life cycle. Illustrate the life cycle of a lima bean. • Label each stage of the life cycle. -Beetle Life Cycle by HISD Curriculum using 123 Science Fonts Bean Plant Life Cycle by HISD Curriculum using 123 Science Fonts **Beetle Life Cycle** Lima Bean Life Cycle Beetle stages: egg, larva, pupa, adult Lima Bean stages: seed, young plant, adult plant Understand It: Changes in physical characteristics of animals and plants can be evidence of growth. Animals and plants grow in different stages which may have similarities or differences between other animals in different life stages. Do life cycle illustrations include all off the stages the organism undergoes? Apply It Journal Entry: Describe each life cycle that you drew. Describe how each organism changes from the beginning to the end of their cycle.

Resources Guided activity using Google Slides



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# HISD Elementary Curriculum and Development

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

Science – Grade 4

April 13-24, 2020 – Week 1

Tuesday – 30-45 minutes

Activity / Task	Comparing Life Cycles To access this interactive lesson; visit <u>https://tinyurl.com/HISDGrade4Day10</u>				
	Objective: Compare the life cycles of plants and animals, such as beetles, lima beans, frogs, and tomato plants.				
	Think about it! What stages are similar or the same when comparing the life cycle of a beetle and a lima been? If you can, discuss this question and share your thinking with someone in your home.				
	<ul> <li><u>Do it!</u></li> <li>What you need: <ul> <li>Life cycle drawings/pictures</li> <li>Venn Diagram</li> <li>Pencil</li> </ul> </li> <li>What to do: <ul> <li>Review the life cycles of the following organisms (beetle, lima beap free and temate)</li> </ul> </li> </ul>	Beetle Life Cycle by HISD Curriculum using 123 Science Fonts	Bean Plant Life Cycle by HISD Curriculum using 123 Science Fonts		
	<ul> <li>Draw and complete a Venn Diagram comparing similarities and differences of the following sets of two organisms.</li> <li>Beetle and frog         <ul> <li>Lima bean and tomato</li> <li>Beetle and Lima bean</li> </ul> </li> </ul>	Beetie Life Cycle	Lima Bean Life Cycle		
	Understand It! When comparing life cycles there are simila Some similarties are most organisms have a young start in an egg or seed stage which c compared to each other.	<u>inderstand It!</u> hen comparing life cycles there are similarities and differences. ome similarties are most organisms have an adult stage. Also, the bung start in an egg or seed stage which can look similar when			
	The differences are some stages tend to look different when compared to each other. Also, some organisms have more stages than others.				
	<u>Apply It!</u> Journal entry: Write a brief summary (3 - 5 sentences) about your comparisons of each set of two organisms' similarities and differences.				
Resources	Guided Activity using Google Slides				



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## HISD Elementary Curriculum and Development

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

Science – Grade 4

April 13-24, 2020 - Week 1

Wednesday – 30-45 minutes

Activity / Task	Producers         To access this interactive lesson, visit <a href="https://tinyurl.com/HISDGrade4Day11">https://tinyurl.com/HISDGrade4Day11</a> Objective:       Describe the role of producers in a food chain.         Think About It!       What do all producers have in common? If you can, discuss this question and share your thinking with someone in your home.         Do It!       What you need:			
	<ul> <li>Pencil</li> <li>Science Notebook / Paper</li> <li>Colored pencils / Markers</li> </ul>			
	<ul> <li>What to do:</li> <li>Go on a scavenger hunt outside to find different producers.</li> <li>Identify 5 different producers.</li> <li>Draw pictures of the producers you found.</li> </ul>			
	<u>Understand it!</u> An organism that uses sunlight to make its own food for energy through photosynthesis is a producer.			
	Most producers need sunlight, water, and carbon dioxide to make their own food. How many producers did you find? Do they all have the same thing in common?			
	Apply It! Journal Entry: Explain how producers get their energy in your journal. Draw a diagram below your entry to support your explanation			
Resources	Guided activity using Google Slides			



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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 4

April 13-24, 2020 - Week 1

### Thursday – 30-45 minutes

Activity / Task	Consumers To access this interactive lesson visit <u>https://tinyurl.com/HISDGrade4Day12</u>				
	Objective: Describe how consumers obtain energy.				
	Think about it! How do humans get their energy? If you can, discuss this question and share your thinking with someone in your home.				
	Do It!     Food Item     Animal     What the Animal Eats (Consumes)       What you need:     •     Pencil     Corn       •     Pencil         •     Science Notebook / Paper         •     Colored pencils / Markers				
	<ul> <li>What to do: Table created by HISD Curriculum using Microsoft Office</li> <li>On a sheet of paper write down what you ate for breakfast, lunch, or dinner.</li> <li>Determine which foods come from an animal. If you are a vegan, think about animals or animal products for your chart.</li> <li>Draw a table (<i>like the one shown</i>) and list the food item, the animal, and what the animal eats (<i>consumes</i>) to get its energy.</li> </ul>				
	Understand It!Animals that eat or consume plants and other animals are called consumers. Consumers depend on producers and other consumers to obtain their energy.There are 3 types of consumers: • Herbivore – consumes only producers • Carnivore – consumes only consumers • Omnivore – consumes producers and consumers.				
	What type of consumer are you?				
	Apply It! Journal entry: Create a three-flap folding model. Label one flap herbivore, one flap carnivore and the other flap omnivore. In your own words write a definition for each term and list examples. On the bottom flap draw a picture of each type of consumer.				
	Herbivore Carnivore Omnivore Types of Consumers				
	Photo by HISD Curriculum using iPhone				
Resources	Guided activity using Google Slides				



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What you need:	
Pencil	

- Science Notebook or Paper
- Colored pencils or Markers



### What to do:

Do It!

- Choose a food that you ate for breakfast or lunch today.
- Make a food chain that describes the flow of energy from the sun to you.
- The first link should be a producer.

The \_\_\_\_\_\_ gives energy to the \_\_\_\_\_

The \_\_\_\_\_ gives energy to the \_\_\_\_\_ The gives energy to the

The last link should be you.

 Understand it!
 Energy is transferred from one organism to another through food chains and food webs.
 Image: Construction of the transfer of energy.

 Arrows on a food chain represent the transfer of energy.
 An animal gets food and energy by eating other organisms.
 Image: Construction of the transfer of energy in a land or water food chain using the sentence stem.

 The \_\_\_\_\_\_ gives energy to the \_\_\_\_\_\_
 Image: Construction of the transfer of energy in a land or water food chain using the sentence stem.
 Image: Construction of the transfer of energy in a land or the transfer of energy in the transfer of energy in a land or the transfer of energy in the transf



Photo by HISD Curriculum using iPhone

Food Chains

 Resources
 Guided activity using Google Slides



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# HISD Elementary Curriculum and Development

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

Science – Grade 4

April 13-24, 2020 - Week 2

Monday - 30-45 minutes

Activity / Task	Food Webs			
	I o access this interactive lesson visit <u>https://tinyurl.com/HISDGrade4Day14</u>			
	Objective: Connect food chains to make models of food webs.			
	Think about it About It! What energy source drives a food web? If you can, discuss this question and share your thinking with someone in your home.			
	<ul> <li>Do It! What you need: <ul> <li>Pencil</li> <li>Science Notebook / Paper</li> <li>Colored pencils / Markers</li> </ul> </li> <li>What to do: <ul> <li>Look at the picture of the Savannah food web to the right. Identify/record all the producers and consumers in your journal or a sheet of paper.</li> <li>Create food chains from the list of producers and consumers.</li> <li>Create food chains from the list of producers and consumers.</li> <li>Create a new food web from your food chains. (You do not have to use all the animals listed.)</li> <li>Present your new food web and explain the flow of energy to someone in your home.</li> </ul> </li> </ul>			
	Understand It! Food webs are composed of both producers and consumers that are interdependent. Organisms obtain their primary source of energy from the Sun, and then that energy is transferred from one organism to another.			
	The arrows show the direction the energy flows from one organism to another.			
	Present your new food web and explain the flow of energy to someone in your home.			
	<u>Apply It!</u> Journal Entry: Compare your food web to the original food web. What are some similarities and differences about the flow of energy?			
Resources	Guided activity using Google Slides			



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	Tuesday – 30-45 minutes				
Activity / Task	Changes in Food Webs To access this interactive lesson, visit <u>https://tinyurl.com/HISDGra</u>	ade4Day15			
	<b>Objective:</b> Predict how changes in a food web affect the ecosystem.				
	Think About It! Imagine that one kind of animal disappeared. What would happen to the other living things in the food web? If you can, discuss this question and share your thinking with someone in your home.				
	<ul> <li><u>Do It!</u></li> <li>What you need: <ul> <li>Pencil</li> <li>Science Notebook / Paper</li> <li>Colored pencils / Markers</li> </ul> </li> <li>What to do: <ul> <li>Brainstorm a list of changes that may affect a food web.</li> <li>Determine some possible effects from the changes.</li> <li>Make a chart listing the cause of the change and the effect of the change</li> </ul> </li> </ul>	Changes in the Ecosystem not enough food construction forest flooding fires hurricanes hurricanes drought			
	<u>Understand it!</u> Changes in food webs can affect all parts of a food web. If one organism in the food web disappears the other organisms are affe	Photo by HISD Curriculum using iPhone ected.			
	<u>Apply It!</u> Journal Entry: Explain how disease would affect the population of deer i What would happen to the other living things in the forest food web?	in a forest.			

 Resources
 Guided activity using Google Slides



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	Wednesday	<mark>′ – 30-45</mark> n	ninutes				
Activity / Task	Inherited Traits         To access this interactive lesson, visit <a href="https://tinyurl.com/HISDGrade4Day16">https://tinyurl.com/HISDGrade4Day16</a> Objective: Identify inherited traits in plants. <u>Think About It!</u> Who do you look like? Which trait did you get from your mother? Which trait did you get from your father? ( <i>Think about eye color, hair color, heightetc.</i> ) If you can, discuss your thinking with						
	Do It! What your need:	Plant	Leaf Size	Plant Traits Height	Color	Flower/Fruit	
	Pencil     Science Notebook / Paper     Colored pencils / Markers	Oak Tree	Medium	8 feet	green		
<ul> <li>What to do:         <ul> <li>You are going on a scavenger hunt. Inspect the plants around plants and their offspring. (You should look for small shoots or plants)</li> <li>Create a table (<i>like chart shown</i>) or on a sheet of paper and r plants have in common.</li> </ul> </li> <li>Understand It!         <ul> <li>Inherited traits are characteristics that are passed down from parent to offspring.</li> <li>All organisms pass down traits to their offspring, including plants.</li> </ul> </li> </ul>				around your hoots or smal er and record a hts.	house to I plants no the inheri	identify the ext to larger ted traits the	
	Apply it!			Definition	FRAYER MODEL	Characteristics	
	Journal entry: Create a Frayer model terms: Inherited traits Offspring Parent	for the follow	ving	Examples	Inherited Traits	Non-Examples	
				Graphic Organizer	by HISD Curriculu	m using Microsoft Office	
Resources	Guided activity using Google Slides						



HISD	<b>Elementary Curriculum and I</b> INSPIRING TEACHING, IGNITING LITERACY & LEARNING. 2019-2020 HISD @ H.O.M.E. Distance Learning Science – Grade 4	Development			
	April 13-24, 2020 – Week 2				
	I hursday – 30-45 minutes				
ACTIVITY / TASK	To access this interactive lesson, visit <u>https://tinyurl.com/HISDGra</u>	ade4Day17			
	Objective: Understand that some behaviors are learned as an organis	m grows and develops.			
	Think About It! Can you think of some behaviors that a puppy would have to learn how to do? If you can, discuss this question and share your thinking with someone in your home.				
	Do It! What you need: • Science notebook/paper • Pencil				
<ul> <li>What to do:</li> <li>Brainstorm of list of behaviors that you have observed by family members or animals.</li> <li>Box the behaviors that are learned.</li> <li>Put a check by the behaviors that are inherited.</li> </ul>					
	<u>Understand it!</u> Behavior is the way an organism acts or what it does. Some behaviors are learned as an organism grows and develops. The ability to learn helps an animal survive.	□ Veras □ Vspinning a □ Vspinning a ↓ bears □ hobernating ∨eye color □ Vskin color			
	Apply It! Make a list of some behaviors that you have learned in the past month. Explain how you learned each behavior.	Photo by HISD Curriculum using iPhone			
Resources	Guided activity using Google Slides				



HISD	Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING. 2019-2020 HISD @ H.O.M.E. Distance Learning Science – Grade 4 April 13-24, 2020 – Week 2					
	Friday – 30-45 minute	S				
Activity / Task	Adaptations (Structure and Functions) To access this interactive lesson, visit <u>https://tinyurl.com/HISDGrade4Day18</u>					
	Objective: Identify adaptations in plants and animals.					
	Think About It! Humans have some flat teeth and other teeth that are sharp. Why do you think this is? If you can, discuss and share your thinking with someone in your home.					
	<u>Do It!</u> What you need:					
	Pencil     Science Notebook/Paper	SIRUCIURE	FUNCTION			
	<ul> <li>Science Notebook Paper</li> <li>What to do: <ul> <li>Look at the chart of the different plants and animals to the right.</li> <li>Copy the chart and identify the function of each structure listed.</li> </ul> </li> </ul>	Aloe Vera's wide waxy leaves Giraffe's long neck Cactus' spines Arctic fox has white fur in winter and red				
	Understand It! Plants and animals have structures that serve differen survival, and reproduction. An adaptation is an inherited trait that helps an organia					
	Apply It! Journal entry: Research 2 plants and 2 animals. Identify a structure for each organism and determine its function and how it helps them survive in their environment. Add them to the chart you created earlier.					

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Resources

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