

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

At a Glance

Science - Grade 5

Monday May 11	Tuesday May 12	Wednesday May 13	Thursday May 14	Friday May 15
Objective: Make informed choices in the conservation of materials.	Objective: Make informed choices in the recycling of materials.	Objective: Create a family plan for conservation and recycling at home.	Objective: Understand how organisms depend on nonliving components of the physical environment.	Objective: Identify and describe how living things interact with other living things in an ecosystem.
Overview: Students will create a T-chart for wise use and wasteful use of resources and categorize the descriptions listed in the lesson.	Overview: Students will analyze their trash and make a chart to determine which things should be trash and which can be reused.	Overview: Students will create and design an item out a plastic bottle and craft items to create something new.	Overview: Students will observe an image of a pond ecosystem and focus on two plants and their needs to survive in their environment.	Overview: Students will next observe a pond ecosystem to identify the plant eaters, meat eaters or eaters of both and list in a chart.
Monday May 18	Tuesday May 19	Wednesday May 20	Thursday May 21	Friday May 22
Objective: Identify and describe how organisms interact with other organisms, including predators and prey.	Objective: Understand the role of producers, consumers, and decomposers in an ecosystem.	Objective: Describe the flow of energy in food web.	Objective: Compare the structure and function of organisms.	Objective: Differentiate between learned and instinctive behaviors.
Overview: Students will identify the different organisms in the pond ecosystem image and list what they eat in a chart.	Overview: Students will create their own ecosystem to observe over a three-day period in a baggie with soil, an earthworm and leftovers that is well ventilated.	Overview: Students will observe the pond ecosystem image and identify a food chain and its flow of energy, starting with the Sun.	Overview: Students will observe certain objects in the pond ecosystem image, label body parts, and describe how one part helps that organism survive in its environment.	Overview: Students will make a chart to identify instinctive and learned behaviors of a duck and a fish.

















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

Science - Grade 5

May 11-22, 2020 - Week 1

Monday - 30-45 minutes

Activity / Task

Conservation of Materials

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day-29

Objective: I can make informed choices in the conservation of materials.

Think About It!

Look at items in your home like the television, refrigerator, your clothes, your bed, etc. What materials are the items made of? Are these materials easy to replace or find?

Can these materials be used again or used for another purpose? If possible, share your response with someone at home!



Image by StartupStockPhotos from Pixabay

Wasteful use

Do It!

What you need:

Journal

Pencil or pen

What to do:

 Create a t-chart in your journal like the one above and categorize the descriptions below as wise or wasteful use of resources.

Descriptions

- Use both sides of a sheet of paper
- Use a whole roll of paper towels to clean
- o Replace juice boxes with a reusable bottle
- Donate materials that are in good condition
- Using disposable straws instead of reusable straws

Wise use

- Use sponges or wash clothes instead of napkins
- Pack your lunch in a new paper bag instead of a lunch box every day.
- Use old newspapers for art projects

Natural resources can last longer by practicing conservation. Conservation is the work of protecting and using our natural resources wisely. There are three important ways to conserve resources:

Reduce - Use less of a Reuse - Find a new way to Recycle – Using materials use something instead of that have already been used resource by cutting back on throwing it away to make something new. the amount we use © Tasha Vector - stock.adobe.com Image by Clker-Free-Vector-Images from Pixabay Image by Clker-Free-Vector-Images from Pixabay

Apply It!

Complete the sentence stems below: I can reduce using resources when I I can reuse resources by __ when I recycle _____

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Science - Grade 5

May 11-22, 2020 - Week 1

Tuesday - 30-45 minutes

Activity / Task

Recycling of Materials

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day30

Objective: I can make informed choices in the recycling of materials.

Think About It!

Think of materials and items you throw in your trash can daily. What materials can be changed into something else and used for another purpose? If possible, share your response with someone at home!



Image by RitaE from Pixaba

Do It!

What you need:

- Journal
- Pencil or Pen

Can be made into something new

Trash - Throw away

What to do:

- Make a list of all the things you have seen thrown away in the trash over the last week.
- Create a t- chart like the one shown above and categorize the items as "can be made into something new or trash - throw away"
- Think about the following:

Were these items trash when you first got them? What was their purpose? What makes them trash now? Where does trash go when it leaves your house?

Understand It

In recycling, materials that would otherwise be thrown away are broken down to be made into new items. Some everyday household items that can be recycled are water bottles, cereal boxes, soda cans (aluminum), newspapers, and plastic cups. Recycling cuts down on the amount of waste that enters our landfills and saves money and energy. The table below shows materials that are typically recycled.









Image by PublicDomainPictures from Pixabay

Apply It!

Look back at the t-chart and circle the items that can be recycled. Label the items as glass, metal, paper, or plastic.

Complete the sentence stem below:

I can recycle _____ at home by _____ to help reduce waste.

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Science - Grade 5

May 11-22, 2020 - Week 1

Wednesday - 30-45 minutes

Activity / Task

Conservation and Recycling

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day31

Objective: I can create a family plan for conservation and recycling at home.

Think About It!

How can you dispose or get rid of items in other ways that will generate less trash? If possible, share your response with someone at home!



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Do It!

What you need:

- A rinsed empty plastic container (bottle, jar, tub, can, etc.)
- Food and candy wrappers or construction paper
- Scissors
- Glue or tape

What to do:

- Design a plan to create a new item out of the empty plastic container (bottle, jar, tub, can, etc.)
- Create a new item out of the container using the wrappers, construction paper, scissors, and glue or tape from the old one.
- Complete the sentence stem below.

The old	was used to create	and	is now	used	tor	

Understand It

Everyone produces trash or waste, but the amount of trash or waste can be minimized by conserving resources. By recycling, we conserve natural resources (air, plants, animals, fossil fuels, minerals, sand, etc.). Natural resources give us food, shelter, and entertainment. Natural resources must be preserved and protected. In addition to recycling, other ways to conserve resources include reusing material and reducing how much of something we use. The bulleted list below suggests a few small changes that can be done at home to conserve resources.

- Purchase longer lasting products
- Use more recyclable containers
- Sort items that can be recycled (plastic, paper, metal, glass) from items that are trash
- Reuse things like tires, appliances, clothes, and old furniture



Image by StockSnap from Pixabay

Apply It!

Create a family plan for conserving and recycling resources at home.

Use the sentence stems below to communicate your plan:

I can begin recycling _____ instead of throwing it away. I can conserve _____ instead of

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

Science - Grade 5

May 11-22, 2020 - Week 1

Thursday – 30-45 minutes

Activity / Task

Living and Nonliving Interactions

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day32

Objective: I understand how organisms depend on nonliving components of the physical environment.

Think About It!

Look at this picture of a plant. What do you think plants need to survive? If possible, share your response with someone at your home!



Image by AliceKeyStudio from Pixabay

Do It!

What you need:

- Picture of ecosystem (on the right)
- Pencil or pen
- Journal or piece of paper

What to do:

- Look at the plants in this pond ecosystem, including the water lily and duck potato.
- Determine two nonliving things the plants depend on for survival in this ecosystem and record them in the first column of the table.
- Explain how the nonliving components support the plant's survival in the second column.



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Understand It!

Living things in an ecosystem depend on nonliving things, as well as other living things, to survive. Plants use light from the Sun, as well as water they absorb through their roots and carbon dioxide they absorb from the air. Plants create energy they need to survive and grow through a process called photosynthesis. Underwater plants grow leaves close to the surface of the water to maximize exposure to sunlight.

Nonliving	
thing plants	Evolonation
need to	Explanation
survive	

Apply It!

Aquatic plants often have leaves that float on the surface of the water. Why do you think that is? Use the sentence stem below to answer the question.

Some aquatic plants have floating leaf structures because



Image by Ryan McGuire from Pixabay



Image by andreas160578 from Pixabay



Image by Couleur from Pixabay

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

Science - Grade 5

May 11-22, 2020 - Week 1

Friday – 30-45 minutes

Activity / Task

Living Things Interacting with Other Living Things

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day33

Objective: Identify and describe how living things interact with other living things in an ecosystem.

Think About It!

Look at the image of the rabbit and the lion. Do you think the rabbit and the lion eat similar foods? Why? Why not? If possible, share your responses with someone in your home!





mage by David Mark from Pixabay

Image by MonikaP from Pixabay

Do It!

What you need:

- Picture of ecosystem (see end of document)
- Pencil or pen
- Journal or piece of paper

What to do:

- Look at the pond ecosystem.
- Fill out the table by choosing two organisms in the pond ecosystem that you can label as plant eaters. two organisms that you can label as meat eaters, and two organisms you can label that eat plants and meat.



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Understand It!

The pond ecosystem is made up of a delicate balance of producers and consumers. There are different types of consumers within this system. Some consumers, such as the Ramshorn snail and water beetles, obtain their energy by consuming plants only. They are called herbivores. Other organisms, such as frogs and water scorpions consume meat only. They are called carnivores. Organisms such as ducks eat both plants and meat. They are called omnivores.

Plant Eaters in Pond Ecosystem	Meat Eaters in Pond Ecosystem	Plant and Meat Eaters in Pond Ecosystem

Apply It!

The table below lists ways that four organisms obtain energy.

Methods for Obtaining Energy

	<u> </u>	
Organism	Method	
Oak tree	Produces food through photosynthesis	
Mushroom	Absorbs nutrients from decomposing plants and animals	
Cottontail rabbit Eats grasses, twigs, and bark		
Mountain lion	Preys on deer, wild hogs, and rodents	

Which one of the organisms in the table above is an herbivore? How do you know? Record your response in your journal.

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

Science - Grade 5

May 11-22, 2020 - Week 2

Monday - 30-45 minutes

Activity / Task

Living Things Interacting with Other Living Things

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day34

Objective: Identify and describe how organisms interact with other organisms, including predators and prey.

Think About It!

Look at this picture of a rabbit and an eagle. Predict what you think the interaction will be between the eagle and the rabbit? How do you know? If possible, share your responses with someone in your home!

Do It!

What you need:

- Picture of ecosystem (on the right)
- Pencil or pen
- Journal or piece of paper

What to do:

- Look at the picture of the pond ecosystem.
- Complete the table by inferring what each organism eats within the pond ecosystem.

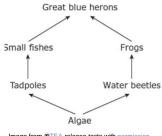
Understand It!

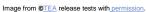
Predators in an ecosystem are organisms (carnivores and omnivores) that hunt and feed on other organisms. Prey is the animal that is being eaten for food. In our pond ecosystem, the water scorpion eats tadpoles. Dragonflies are predators that eat mosquito larvae and pond skaters, and ducks are omnivores that eat pond plants but also hunt and eat fish, snails, and frogs.

Apply It!

A partial food web of

a pond ecosystem is shown below. Who are the predators in this ecosystem? Who is the prey? Explain your answers.







Pond Organisms	What They Eat
Water Scorpion Image by Ylvers from Pixabay	
Dragonfly Image by Clara Sander from Pixabay	
Duck Image by Josep Monter	

Resources

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

Science - Grade 5

May 11-22, 2020 - Week 2

Tuesday – 30-45 minutes

Activity / Task

Living Things Interacting with Other Living Things

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day035

Objective: I understand the role of producers, consumers, and decomposers in an ecosystem.

Think About It!

Go outside your home and find a tree.

Look carefully at the soil by the tree. Do you see any fallen leaves or other living organisms? What happens when plants and animals die? If possible, share your responses with someone in your home!



Do It!

What you need:

- Picture of ecosystem (on the right)
- Pencil or pen
- Journal or piece of paper
- Scissors
- Small sealed bag
- Soil sample from outside your home
- Leftover vegetables, bread, or fruit



What to do:

- Go outside your home and gather a small amount of soil with leaves and twigs in it.
- Place the soil, the leaves, and the twigs in the sealed
- Find an earthworm and place it in the bag.
- Place the leftover food in the sealed bag.
- Use scissors to cut small holes in the top portion of your bag.

Mushrooms

Record in your table observations of how the food changed over a period of three days.

Day Two Day One Day Three Observations Observations Observations

Understand It!

Decomposers are organisms that consume dead or decaying organisms for nutrients. They eat everything from fallen leaves, seeds, and fruits, to dead insects and animals. The decomposer in the activity above was the worm. Other decomposers include mushrooms and bacteria. Decomposers are essential for an ecosystem because they provide plants with essential nutrients they need to survive.

Decomposers

Apply It! Look at the picture of the mushroom and the plant. Use the word bank to complete the sentence stem below. _____ are _____ that provide nutrients to ____ to help them survive.

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Plants



















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Science - Grade 5

May 11-22, 2020 - Week 2

Wednesday - 30-45 minutes

Activity / Task

Food Webs

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day36

Objective: Describe the flow of energy in food web.

Think About It!

Ever noticed how plants get food? What about certain animals? How do you think these organisms get their food? If possible, discuss these questions with someone in your home!



Do It!

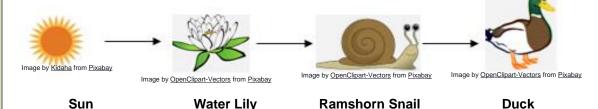
What you need:

- Picture of ecosystem (on the right)
- Pencil
- Crayons, markers or colored pencils
- Journal or piece of paper

What to do:

- Look at all the organisms in the ecosystem
- In your journal, draw the food chain below.
- Describe how the energy flows from one organism to another.





Understand It!

A food web is a diagram that shows how energy moves from one organism to another in an ecosystem. A food chain shows the straight path of energy being transferred. The arrows in a food web point in the direction that energy moves. The arrows point from the organism being eaten to the organism that does the eating. To show that ducks eat snails, you drew the arrow from the snail to the duck. The duck has now gotten energy from consuming the snail.

Journal Entry: Use the Food chain and ecosystem picture above. Add organisms to it to make a food web. Draw arrows and organisms that can eat the same thing. Here is some more info to help (The duck eats duck potato plants and water beetles. The water beetles eat water lilies and the ducks eat water beetles too). Use the picture below to get an idea of what a food web looks like.

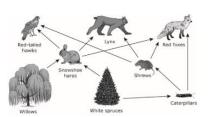


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Resources

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

Science - Grade 5

May 11-22, 2020 - Week 2

Thursday – 30-45 minutes

Activity / Task

Traits and Adaptations

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day37

Objective: Compare the structure and function of organisms.

Think About It!

Observe some plants and animals around the house or in some pictures (books). How do the body parts on the organism help it to survive in its environment? If possible, discuss these questions with someone in your home!

Do It!

What you need:

- Picture of ecosystem (on the right)
- Journal or piece of paper

What to do:

- Look at the lily pad, the tadpole and the frog in the pond ecosystem image to the right.
- Draw the table below in your journal or on a piece of paper.
- Label each organism in the table and list one part of that organism.
- Write how that part helps the organism survive in its environment.

Organism	Body part	How it works
Lily pad		
Frog		
Tadpole		

Understand It!

Plants and animals have structures (body parts) that serve different functions (how it works) in growth, survival, and reproduction. An adaptation is an inherited trait that helps an organism meet its needs. An organism is adapted to an environment when its inherited traits help it survive there.

Apply It!

Journal Entry: Now that you have listed the structures and functions of each organism, write what would happen if that part was removed from the organism. (If you wrote that the frog has legs, write how the removal of that part would affect the frog's survival). Do this for the lily pad and the tadpole.

Resources

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

Science - Grade 5

May 11-22, 2020 - Week 2

Friday – 30-45 minutes

Activity / Task

Behaviors - Instinct and Learned Behaviors of Animals

To access this interactive lesson, visit https://tinyurl.com/HISDGrade5Day38

Objective: Differentiate between learned and instinctive behaviors

Think About It!

Look at the image of the dog. What behaviors were taught to the dog? What behaviors were not taught to the dog? If possible, discuss these questions with someone in your home!



Do It!

What you need:

- Picture of ecosystem
- Pencil
- Crayons, markers or colored pencils
- Journal or piece of paper

What to do:

- Look at the duck and the fish in the ecosystem
- Draw the table below in your journal
- For each organism write behaviors that you think the duck and fish were taught and not taught



Organism	Taught Behaviors	Behaviors not taught	
Duck			
Fish			

Chart by HISD Curriculum using Microsoft Office

Understand It!

Behavior is the way an organism acts or what it does. Some behaviors are learned (taught) and some are instinctive (born knowing how to do). Ducks and fish learn where they can find food in their environment. If they can't find food in one area, they will teach themselves or learn from others where food can be found. Swimming for ducks and fish is instinctive. They do not have to be taught how to swim.

Apply It!

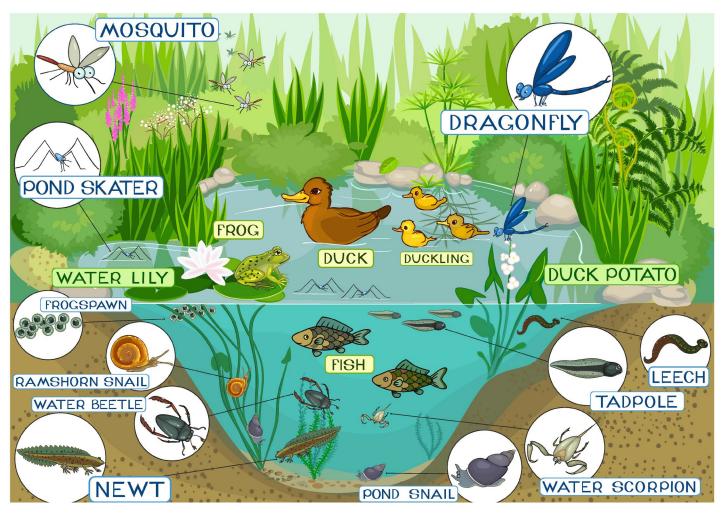
Journal Entry: People like to visit ponds and look at all the organisms that are there. Some people bring bread and grains for the ducks to eat. Do you think the ducks run away or come up to the humans? Is this learned or instinctual? What is an instinctive behavior that ducks possess besides swimming? Explain your reasoning for both questions.

Resources

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Pond Ecosystem Image



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Organism	Gets its energy from —
Male mosquito	Flower nectar
Female mosquito	Blood of mammals, reptiles, birds, and fish
Pond skater	Other insects
Dragonfly	Other flying insects, midges, and mosquitos
Ramshorn snail	Algae, dead or dying plants
Water beetle	Algae and other aquatic plants
Newt	Worms, slugs, amphibian eggs, and other insects
Pond snail	Aquatic plants
Water scorpion	Tadpoles, water fleas, lice, insect larvae
Tadpole	Dead insects, small fish, pieces of vegetation
Leech	Blood of mammals, reptiles, birds, and fish
Frog	Moths, insects, mosquitos, and dragonflies
Duck	Snails, worms, slugs, algae, and aquatic plants
Fish	Algae, aquatic plants, plankton, blood worms