

Monday April 13	Tuesday April 14	Wednesday April 15	Thursday April 16	Friday April 17
Objective: Investigate the life cycles of animals such as lady beetles and frogs. Overview: Students will illustrate and label the stages in the life cycle of a frog and a lady beetle. They will also complete a writing prompt to explain the stages of a life cycle.	Objective: Investigate the life cycles of plants such as tomato plants and compare to the life cycles of a frog or a lady beetle. Overview: Students will illustrate and label the stages in the life cycle of a tomato plant. They will also complete a Venn diagram where they compare the life cycle of a tomato plant to either a frog or lady beetle life cycle.	Objective: Identify how energy flows in a food chain. Overview: Students will read and interpret a food chain. Then, they will create a food chain that begins with the Sun and ends with a human and complete a probing question about food chains.	Objective: Explain the components of food chains. Overview: Students will observe, draw, and analyze a forest food chain. They will also identify producers and consumers in a food chain and complete their own food chain given information about each of the organisms in a chain.	Objective: Predict how changes in a food chain affects an ecosystem. Overview: Students will observe an image of a pond ecosystem, create a possible food chain from the ecosystem, and write about what would happen if a human removed an organism from the food chain created.
Monday April 20	Tuesday April 21	Wednesday April 22	Thursday April 23	Friday April 24
Objective: Identify and describe parts of ecosystems around your home. Overview: Students will go on a nature walk outside of their home and list all the organisms they see and how they interact. Then, they will produce a chart that describes the ecosystem around their home.	Objective: Identify and describe parts of ecosystems around the world. Overview: Students will observe images of different ecosystems, discuss which living and nonliving things can be found in each ecosystem, and create a Venn diagram to compare two ecosystems.	Objective: Describe how environmental changes such as floods and droughts can affect organisms. Overview: Students will observe a small "square" of grass near their area and collect data about the environment within the square. Then, they will predict how environmental changes could affect organisms.	Objective: Identify how physical characteristics of animals help them survive in their environment. Overview: Students will use paper and art supplies to create an environment and an animal that would camouflage in that environment. Then, they will compare the adaptations of two animals using a Venn diagram.	Objective: Identify how physical characteristics of plants help them survive in their environment. Overview: Students will observe images of different ecosystems and determine the adaptations that plants would need in order to survive in those ecosystems.

Monday – 30-45 minutes

Activity /
Task

Animal Life Cycles

To access this interactive lesson, visit <https://tinyurl.com/HISDSscienceGrade3Day9>

Objective: Investigate the life cycles of animals such as lady beetles and frogs.

Think About It!

How do animals grow and change? What are some animals that give birth to live young? What are some animals that lay eggs? If you can, discuss these questions and share your thinking with someone in your home.

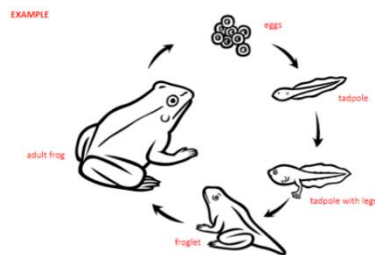
Do It!

What you need:

- Science notebook or sheet of paper
- Pencil
- Crayons or color pencils, if available

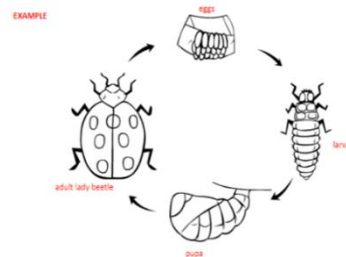
What to do:

- Illustrate and label the stages in the life cycles of a frog and lady beetle in your notebook or on a sheet of paper.
- Frog life cycle stages: egg, tadpole, tadpole with legs, froglet, adult frog
- Lady beetle life cycle stages: egg, larva, pupa, adult



Graphic Organizer by HISD Curriculum using Microsoft Office and 123 Science Fonts

Frog Life Cycle



Graphic Organizer by HISD Curriculum using Microsoft Office and 123 Science Fonts

Lady Beetle Life Cycle

Understand it!

Organism is another word for living thing. Organisms eat, grow, and reproduce. Frogs and lady beetles are organisms that eat, grow, and reproduce throughout their lifetime. A life cycle is the series of changes in the life of an organism.

Apply It!

Journal Entry: Write from the perspective of a frog or lady beetle. Write what happens to you (as a frog or lady beetle) as you grow and develop throughout your lifetime. Be creative and use your graphic organizers to recall your life cycle stages in your writing.

- Frog life cycle stages: egg, tadpole, tadpole with legs, froglet, adult frog
- Lady beetle life cycle stages: egg, larva, pupa, adult

Resources

[Guided activity using Google Slides](#)

Tuesday – 30-45 minutes

Activity / Task

Plant Life Cycles and Comparing Life Cycles of Plant and Animals

To access this interactive lesson, visit <https://tinyurl.com/HISDSscienceGrade3Day10>

Objective: Investigate the life cycles of plants such as tomato plants and compare to the life cycles of a frog or a lady beetle.

Think About It!

Are plants also organisms? Do plants eat, grow, and reproduce? How do plants eat? How do plants grow and change? If you can, discuss these questions and share your thinking with someone in your home.

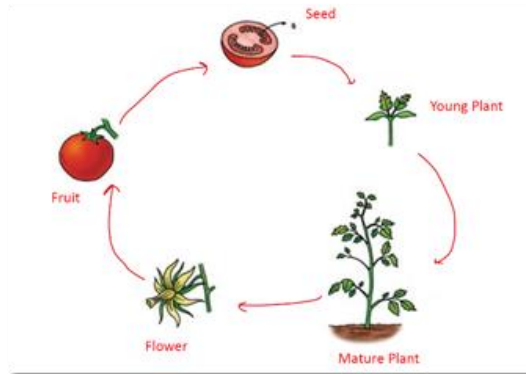
Do It!

What you need:

- Science notebook or piece of paper
- Pencil
- Crayons or color pencils, if available

What to do:

- Illustrate and label the stages in the life cycle of a tomato plant in your notebook or piece of paper.
- Tomato plant life cycle stages: seed, young plant, mature plant, flower, fruit



This work, Tomato Stages, is a derivative work of [Tomato Life Cycle by Sivavula Education](#), used under CC BY 2.0

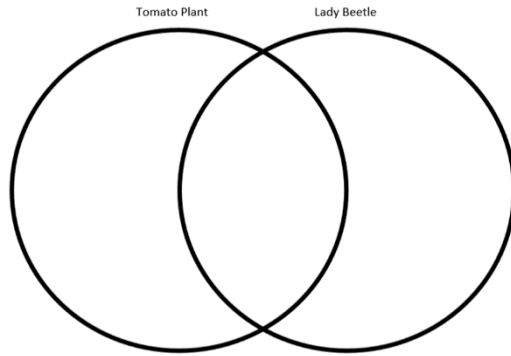
Tomato Plant Life Cycle

Understand it!

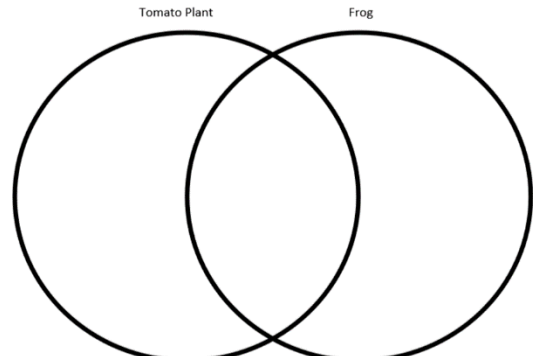
- Plants are alive, just like people and animals.
- Plants are organisms that eat, grow, and reproduce.
- Plants create their own food by using energy from the sun.
- Most plants come from seeds.
- A seedling is a tiny new plant that comes out of the seed and grows or germinates.
- The plant grows into an adult plant and can reproduce.
- The adult plant grows flowers or cones and these parts hold seeds.
- From these seeds, a new life cycle can begin.

Apply It!

Journal Entry: Complete a Venn Diagram comparing the life cycle of a tomato plant to the life cycle of a frog **OR** complete a Venn Diagram comparing the life cycle of a tomato plant to the life cycle of a lady beetle. Use your Venn Diagram to complete the 2 sentence stems below.



Venn Diagram by HISD Curriculum using Microsoft Office



Venn Diagram by HISD Curriculum using Microsoft Office

Sentence Stems:

1. The life cycle of the _____ is different from the life cycle of the _____ because _____.
2. The life cycle of the _____ is similar to the life cycle of the _____ because _____.

Resources

[Guided activity using Google Slides](#)

Wednesday – 30-45 minutes

Activity / Task

Flow of Energy in a Food Chain

To access this interactive lesson, visit <https://tinyurl.com/HISDSscienceGrade3Day11>

Objective: Identify how energy flows in a food chain.

Think About It!

How do organisms get the energy they need in order to survive? What is the main source of energy to organisms on Earth? What is a food chain? What do the arrows in a food chain represent? If you can, discuss these questions and share your thinking with someone in your home.

Do It!

What you need:

- Science notebook or piece of paper
- Pencil
- Crayons or color pencils, if available

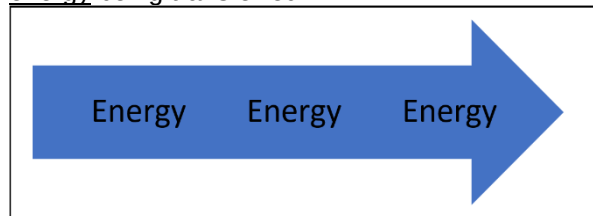
What to do:

- If someone's favorite food is chicken nuggets, let's first connect that chicken nuggets came from a chicken, the chicken ate seeds (which come from plants), and the plant got its energy from the sun.
- Look the example of the food chain below. Notice the directions of the arrows.
- Sun → plant seeds → chicken → human
- Let's read and interpret this food chain. ***The sun "gives energy to" the plant seeds that "give energy to" the chicken that "gives energy to" a human.***
- Think of your favorite food and create a food chain beginning with the sun and ending with a human.
- Write a sentence that interprets what your food chain represents. Look at the example above. Use the words "gives energy to" in your sentence.

Understand it!

-The sun is the main source of energy in food chains.

-Arrows in a food chain DO NOT show what is eating what, instead these arrows show the flow of energy being transferred.



Energy Flow Arrow by HISD curriculum using Microsoft Office

-Plants get the energy they need from the Sun and use this energy to create food for themselves.

-Some animals get the energy they need from eating only plants and some animals get the energy they need from only eating other animals.

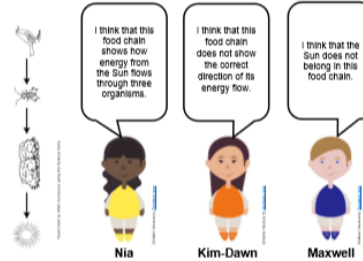
-Other animals get the energy they need from eating both plants and animals.

Apply It!

Journal Entry: Tell which student you agree with and explain why you agree with the student in your science notebook or piece of paper.

**Concept Cartoon Probe
Energy Flow in Food Chains (3.9B)**

Three students are commenting on a food chain they created.



Which student(s) do you agree with? _____
Justify your thinking. Explain why you agree with the student(s) you chose.

Concept Cartoon Probe created by HISD curriculum using Microsoft Office

Resources

[Guided activity using Google Slides](#)

Thursday – 30-45 minutes

Activity / Task

Flow of Energy in a Food Chain

To access this interactive lesson, visit <https://tinyurl.com/HISDScienceGrade3Day12>

Objective: Explain the components of food chains.

Think About It!

What is the main source of energy in a food chain? Where do plants get their energy, and how do plants use this energy? How do animals depend on plants? If you can, discuss these questions and share your thinking with someone in your home.

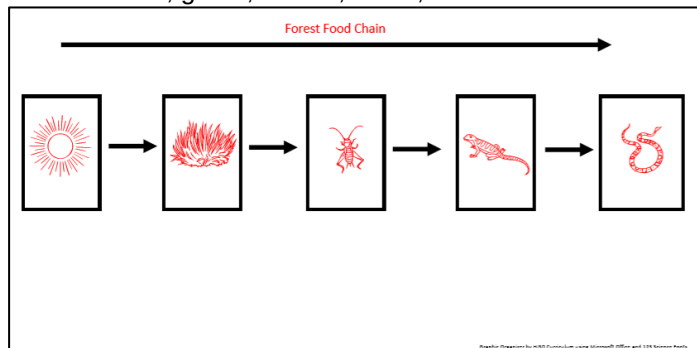
Do It!

What you need:

- Science notebook or piece of paper
- Pencil
- Crayons or color pencils, if available.

What to do:

- Observe the food chain below in the Forest Food Chain Flow Chart.
- Draw the Forest Food Chain Flow Chart in your science notebook or on a piece of paper.
- Label the sun, grass, cricket, lizard, and snake.



Graphic Organizer by HISD Curriculum using Microsoft Office and 123 Science Font

- Examine the grass. Does the grass use the energy from the sun to produce its own food? Yes, therefore, it is a producer!
- Examine the cricket. Does the cricket use the energy from the sun to produce its own food? No, it does not. It consumes or eats the grass for energy; therefore, it is a consumer!
- Label each organism in the forest food chain as a consumer or producer.
- Complete the sentence stems in your science notebook or on a piece of paper.

The _____	shines brightly in the sky giving energy to producers.
The _____	, which is a producer, gives energy to a cricket.
A cricket, which is a _____	, gives energy to the lizard.
The _____	, which is a consumer, gives energy to the snake.

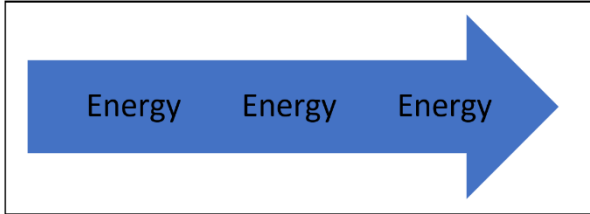
Understand it!

-The Sun is the main source of energy in food chains.

-Producers (plants) make their own food by using energy from the Sun.

-A consumer is an organism that eat other organisms (plants and/or animals) for energy.

- Consumers (animals) depend on producers (plants) and other consumers (animals) for energy (food) to survive.
- There are 3 types of consumers; herbivores = animals that only eat plants for energy, carnivores = animals that only eat other animals for energy, and omnivores = animals that eat both plants and other animals for energy.
- Arrows in a food chain DO NOT show what is eating what, instead these arrows show the flow of energy being transferred.



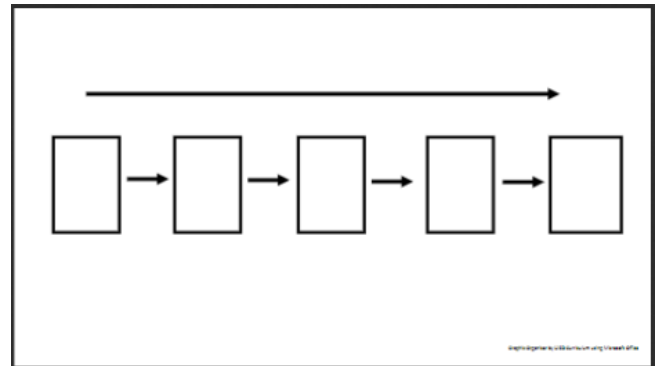
Energy Flow Arrow by HISD curriculum using Microsoft Office

Apply It!

Journal Entry: Use the description of animals and plants in a grasslands environment to create a food chain that shows how energy is transferred. Identify and label the sun and each organism if it is a consumer or a producer. Give your food chain a title on the large arrow.

Description of Animals in the Grasslands

Snakes eat rabbits.
Rabbits consume (eat) grass.
The sun shines brightly in the sky.
Mountain lion feasts (eats) on snakes.
The grass uses sunlight to create its food.



Instructional Tool by HISD Curriculum using Microsoft Office and 123 Science Fonts

Resources

[Guided activity using Google Slides](#)

Friday – 30-45 minutes

Activity / Task

Changes in a food chain effect ecosystem

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade3rdDay13>

Objective: Predict how changes in a food chain affects an ecosystem.

Think About It!

How can changes in a food chain affect organisms? Would populations increase, decrease, or stay the same? If you can, discuss this question and share your thinking with someone in your home!

Do It!

What you need:

- Science notebook or sheet of paper
- Pencil or crayons
- Picture of a pond ecosystem

What to do:

- Observe the image of the pond ecosystem.
- Create a food chain using organisms in the pond ecosystem.
- Remember to draw and label each organism in your food chain.



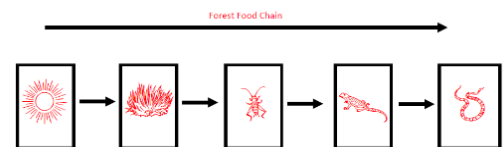
Understand it!

- If the lizard was removed from the food chain the snake population would decrease because they wouldn't have any food to eat.
- The insects would increase in population because the lizard would not be eating the insects if they were removed

Apply It!

Journal Entry: Imagine that a human came to the pond and removed one of the organisms from your food chain that you created. Predict how this action would change the ecosystem and write about your prediction.

EXAMPLE



Graphic Organizer created by HISD Curriculum using Microsoft Office

Resources

[Guided activity using Google Slides](#)

Monday – 30-45 minutes

Activity / Task

Your Environment (around house)

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade3Day14>

Objective: Identify and describe parts of ecosystems around your home.

Think About It!

What makes up an ecosystem? What do organism need in order to survive? If you can, discuss this question and share your thinking with someone in your home!

Do It!

What you need:

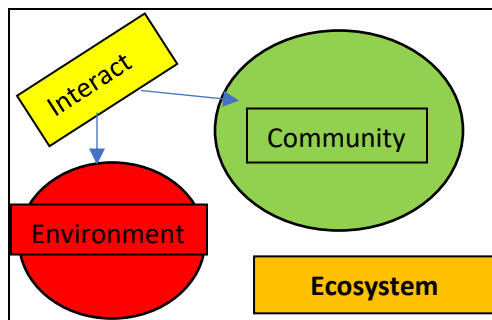
- Science notebook or sheet of paper
- Pencil

What to do:

- Take a walk around your home outside. Make a list of all the organisms that you see: birds, insects, lizards, plants, and trees.
- Write down what each animal eats and how it might be connected to the other animals, trees, or even humans.
- Think about what type of soil and what nutrients (such as sunlight and water) those organisms need in order to survive.

Understand it!

An ecosystem includes the living organisms along with nonliving components of the environment. Populations and communities of organisms depend on the physical characteristics of environments. The interaction between the environment and the community (nonliving things) makes up an ecosystem.



Graphic Organizer created by HISD Curriculum using Microsoft Office

Apply It!

Journal Entry: Create an anchor chart of your home environment. Identify two living and two nonliving things in your home environment. Describe how an organism (living thing) interacts with the environment (nonliving things) in this ecosystem.

Resources

[Guided activity using Google Slides](#)

Tuesday – 30-45 minutes

Activity / Task

Ecosystems Around the World

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade3Day15>

Objective: Identify and describe parts of ecosystems around the world.

Think About It!

What are examples of living and nonliving organisms that create an ecosystem? What are some essentials that organisms need in order to survive? If you can, discuss this question and share your thinking with someone in your home!

Do It!

What you need:

- Science notebook or sheet of paper
- Pencil
- Pictures of various ecosystems

What to do:

- **Observe** the different types of ecosystems. Tropical Rainforest, Desert, Grassland, and Tundra.

Tropical Rainforest



Image by [Dianne Hope](#) from [Pixabay](#)

Desert



Image by [Ton W](#) from [Pixabay](#)

Grassland



Image by [Pexels](#) from [Pixabay](#)

Tundra



Image by [Wikimages](#) from [Pixabay](#)

- **Discuss** with someone in your home what living and nonliving factors can be found in these ecosystems. An example for the Tropical Rainforest is listed below.

Ecosystem
Tropical Forest

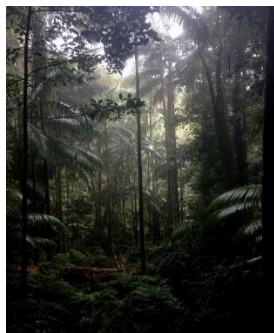


Image by [Dianne Hope](#) from [Pixabay](#)

- Lots of rain
- Very humid
- Lots of tall trees
- Sunlight only reaches upper level
- Soil is poor in nutrients

- Spider monkey
- Jaguar
- Lizards
- Plants with large leaves
- Frogs

Understand it!

Desert



Image by [Ton W](#) from [Pixabay](#)

- Very little rainfall and dry
- Extreme hot temperatures during the day
- Cold temperatures at night
- Few trees
- Soil is very dry
- Cactus
- Scorpion
- Agave plants
- Coyotes

Grassland



Image by [Pexels](#) from [Pixabay](#)

- Lots of sunshine and grass
- Nutrient rich soil
- Very few trees
- Rain occurs mostly during late spring and early summer
- Prairie dog
- Bison
- Zebra
- Antelope

Tundra

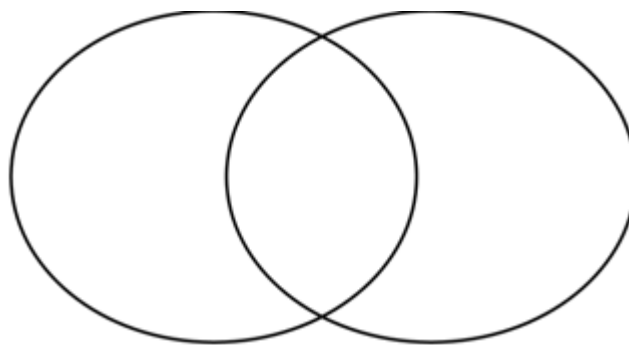


Image by [Wikimages](#) from [Pixabay](#)

- Very cold
- Brief growing season
- Permanently frozen ground
- Snowy much of the year
- Harsh winds
- Reindeer
- Musk Ox
- Arctic Fox
- Hares

Apply It!

- **Create** a Venn diagram to compare and contrast two ecosystems that you learned about. **List** the living organisms and nonliving factors in each ecosystem as well as physical characteristics such as climate, precipitation, and other important factors.



Graphic Organizer created by HISD Curriculum using Microsoft Office

Resources

[Guided activity using Google Slides](#)

Wednesday – 30-45 minutes

Activity / Task

Environmental Changes

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade3Day16>

Objective: Describe how environmental changes such as floods and droughts can affect organisms.

Think About It!

How do environmental changes affect organisms? If you can, discuss this question and share your thinking with someone in your home.

Do It!

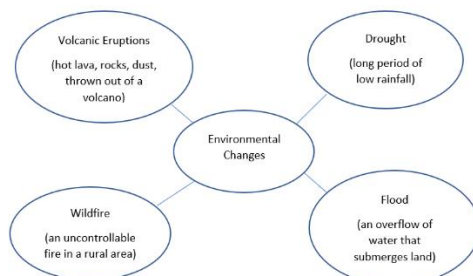
What you need:

- Goggles/Glasses (something to protect your eyes)
- Coat hanger
- Ecosystem (park or any grass area outside)

What to do:

- Put on your goggles/glasses and bend the coat hanger into a square. (Ask an adult for help, if needed.)
- Go outside and place the square on the ground (grass area). Observe and collect data about the environment inside this square.
- Predict what would happen if the environment did not receive water for a long period of time. Now predict what would happen if the area received a lot of water in a short period of time.

Understand it!



Graphic created by HISD Curriculum using Microsoft Office
[Pexels](#)

Example of a flood



Image by [hifjohh](#) from [Pixabay](#)

Example of a drought



Photo by [Johannes Plenio](#) from [Pixabay](#)

Apply It!

Journal Entry: Think of an organism and what it needs to survive. Then, think about what would happen if it could not obtain those essentials. Create a table that includes how environmental changes can affect the organism. Use the example below to help you.

My Organism	Needs	Effect of Environmental Change
Picture: Koala  Image by Syahir Hakim from Pixabay	• water • eucalyptus leaves • trees	Wildfire: population decreases; lose home; perish Flood: population possibly decreases; less active, may starve because they don't eat wet leaves Drought: population decreases; may starve because of lack of leaves; vulnerable to prey when they descend from trees looking for food

Resources

[Guided activity using Google Slides](#)

Activity /
Task

Animal Adaptations

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade3Day17>

Objective: Identify how physical characteristics of animals help them survive in their environment.

Think About It!

What are some examples of body structures that allow animals to survive in their environments? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- Pencil and colored pencils or crayons
- Sheets of paper
- Scissors
- Tape or glue

What to do:

- Create an environment or ecosystem using one sheet of paper. (Be sure to use actual colors that you would see in that environment.)
- On a separate sheet of paper draw an animal that lives in that ecosystem and would be hard to see against your environment you drew on the first sheet.
- Cut out the animal and tape or glue it to the ecosystem.
- Consider this question, "How does blending in (camouflage) with its environment help the animal survive?"

Example: The frog's colors and markings help it camouflage with the lily pads and murky water.



Image by Susanne Jutzeler, suju-foto from Pixabay

Understand it!

The bodies of animals have developed structures, forms, and functions to survive in a certain habitat. These are called adaptations.

Webbed feet allow a duck to swim faster and farther



Image by Marc Pascual from Pixabay

Talons and Sharp claws allow the eagle to catch prey.

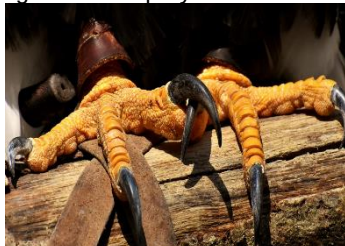
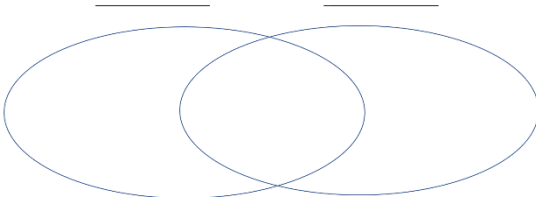


Image by Alexas Fotos from Pixabay

Hooves allow an animal to move in a rocky environment and protect their feet.



Image by Markéta Machová from Pixabay

	<u>Apply It!</u> Journal Entry: Draw the graphic organizer below to compare the adaptations of two animals. Animal 1 Animal 2  Graphic created by HISD Curriculum using Microsoft Office
Resources	Guided activity using Google Slides

Activity /
Task

Plant Adaptations

To access this interactive lesson, visit <https://tinyurl.com/HISDGrade3Day18>

Objective: Identify how physical characteristics of plants help them survive in their environment.

Think About It!

What are some physical characteristics of plants that help them survive in their environments? If you can, discuss this question and share your thinking with someone in your home.

Do It!

What you need:

- Pencil and notebook
- Diagram of desert ecosystem

What to do:

- List the essentials that a plant needs to survive.
- Observe the desert ecosystem and draw the plants you see.
- Answer the question, "What do you think the plants in this ecosystem need to survive in this harsh climate?"



Image by [sspiehs3](#) from [Pixabay](#)

Understand it!

Many plants have structural adaptations that help them survive in different environments. Leaves, roots, and stems may have different features for life in different conditions.

Plant	Adaptation
Seaweed  Image by Simone Jaeckel from Pixabay	• Fronds or leaflike part of seaweeds are very tough, and this toughness allows the seaweed to avoid being torn by strong ocean waves. • Fronds also help the seaweed keep water inside and not be dried out completely by the sun.
Cactus  Image by Ralph Häusler from Pixabay	• Cacti have thick, waxy skin to reduce loss of water and to reflect heat. • Cacti have large, fleshy stems to store water. • Cacti have thorns and thin, spiky or glossy leaves to reduce water loss. • Spikes protect cacti from animals wishing to use stored water.

HISD | Elementary Curriculum and Development

INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

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

Science – Grade 3

April 13-24, 2020 – Week 2

Apply It!

Journal Entry: Describe the adaptations that plants living in this rainforest ecosystem need to help them survive. Draw the table and complete with examples from the photograph.

Plants Needs	Plant's adaptation needed to obtain their needs
Getting sunlight	
Making food	
Getting water	
Retaining or Shedding water	
Protection	



Image by Hedda Werner from Pixabay

Resources

[Guided activity using Google Slides](#)

