

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

At a Glance

Science - Grade 2

Monday May 25	Tuesday May 26	Wednesday Thursday May 27 May 28		Friday May 29
	Objective: Collect and represent data using frequency tables and bar graphs.	Objective: Analyze and interpret data collected and organized in a frequency table and bar graph.	Objective: Identify and explain which surface retains the most water.	Objective: Analyze data related to surfaces and water retention.
Memorial Day	Overview: Students will organize a collection of data into a frequency table and a bar graph.	Overview: Students will analyze their frequency table and bar graph from the previous day and use them to answer questions about the data.	Overview: Students will conduct an investigation where they observe how different surfaces react to water being added to them and draw conclusions about water and different surfaces based on their observations.	Overview: Students will create a bar graph based on given data about water retention on different outdoor surfaces and use the bar graph to draw conclusions about flooding in neighborhoods.
Monday June 1	Tuesday June 2	Wednesday June 3	Thursday June 4	Friday June 5
Objective: Plan and conduct a descriptive investigation.  Overview: Students will plan and conduct a descriptive investigation on a topic of their choice.	Summer Break			















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

Science - Grade 2

May 25 - June 1, 2020 - Week 1

#### Monday - Holiday

Memorial Day

#### Tuesday - 30-45 minutes

#### Activity / Task

#### **Collection and Representation of Data**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade2Day39

Objective: Collect and represent data using frequency tables and bar graphs.

#### Think About It!

Can you organize a collection of data using bar graphs and frequency tables? If you can, discuss this question and share your thinking with someone in your home!

What you need:

- Science Notebook
- Pencil
- Menu (right)

#### What to do:

- Observe the school lunch menu.
- Draw and complete the frequency table on using the data from the school lunch menu.
- Create a bar graph using the data from your frequency table.

#### Understand It!

Bar graphs use bars to show comparisons between categories.

#### Apply It!

Journal Entry: The frequency table below represents a group of students and their favorite flavors of ice cream. Create a bar graph to represent the data.

School	Lunch	Menu	for	March
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MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Hamburgers	Tacos	Hamburgers	Tacos	Pizza
Chicken Nuggets	Hamburgers	Chicken Nuggets	Pizza	Chicken Nuggets
Pizza	Chicken Nuggets	Tacos	Hamburgers	Tacos
Tacos	Hamburgers	Pizza	Tacos	Hamburgers

SCHOOL LUNCH MENU ITEMS			
Food Choices	Tally Marks	Frequency	
Hamburgers			
Pizza			
Tacos			
Chicken			
Nuggets			

		Schoo	ol Lunch	Menu Item	s
6					
5					
4					
3					
2					
1					
0	Ha	mburgers	Pizza	Tacos	Chicken Nuggets

FAVORITE ICE CREAM FLAVORS				
Flavor Choices	Tally Marks	Frequency		
Strawberry	HH II	7		
Chocolate	IIII	4		
Vanilla	III	3		
Chocolate-Vanilla Swirl	1111	5		

Resources

Guided activity using Google slides

















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

Science - Grade 2

May 25 - June 1, 2020 - Week 1

#### Activity / Task

### Wednesday - 30-45 minutes

#### **Analyzing and Interpreting Data**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade2Day40

Objective: Analyze and interpret the data collected and organized in a frequency table and bar graph.

#### Think About It!

Can you interpret the data that was collected from the previous lesson involving the school lunch menu? If you can, discuss this question and share your thinking with someone in your home!

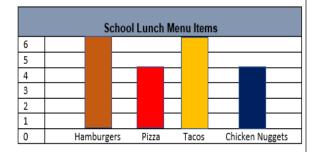
#### Do It!!

What you need:

- Frequency table and bar graph from yesterday
- Science Notebook
- Pencil

#### What to do:

Analyze the school lunch menu information in the frequency table, bar graph, and picture graph and answer the following questions:



- How are the frequency table and bar graph created for the school lunch menu similar to each other? How are they different?
- What are the differences between the picture graph and the bar graph?
- How many hamburgers were on the school lunch menu during the month?
- How many more tacos were served than chicken nuggets?
- Which two food items were served 4 times during the month?
- Which food items were served the most during the month?

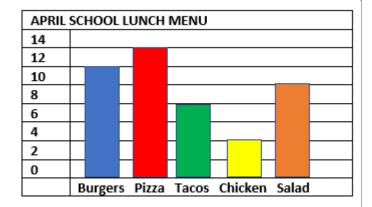
#### **Understand It!**

Bar graphs use bars to show comparisons between categories of data and pictographs show comparisons between data using pictures.

#### Apply It!

Journal Entry: Analyze the bar graph and complete the following sentences.

- There are more than
  - \_\_ on the school lunch menu.
- The total number of burgers and \_\_\_\_ combined is 16 altogether.
- The food item was listed the least amount of times on the school lunch menu.
- There are less \_\_\_\_\_ than on the school lunch menu.
  - There is a total of food items on the school lunch menu altogether.



Resources

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

Science - Grade 2

May 25 - June 1, 2020 - Week 1

#### Thursday - 30-45 minutes

#### Activity / Task

#### **Flood Water Retention**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade2Day41

Objective: Identify and explain which outdoor surface retains the most water.

#### Think About It!

What are some characteristics of neighborhoods that flood when it rains? If you can, discuss this question and share your thinking with someone in your home.

#### Do It!

#### What you need:

- Parental supervision
- Science notebook or sheet of paper
- Large container or large cup
- Water
- Grass surface
- Cement or concrete surface
- Soil or dirt surface



Image by anvelru from Pixabay

#### What to do:

- Find an area around your home with cement, dirt and grass surfaces. (\*For the cement try using a curb or driveway)
- Fill your large container or large cup with water.
- (With permission or adult supervision) Go outside to the grass surface.
- Pour all your water onto the grass surface and record your observations.
- Fill your large container or large cup with water again.
- Go to the cement surface, pour the water and record observations.
- Fill your large container or large cup with water again.
- Go to your dirt surface, pour the water and record your observations.
- An hour later, return to all 3 surfaces and repeat the investigation.
- Record your observations in your science notebook.

#### **Understand It!**

- Different types of surfaces absorb water differently.
- Surfaces like dirt, soil and grass can absorb water.
- On surfaces like concrete, water can seep into the cracks of the rocks, but it cannot absorb much water.
- Retain means to hold or keep.



#### Apply It!

Journal reflections:

After pouring all the water, on which surface was the water most visible? Explain why you think one surface retained more water than another.

Resources

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

Science - Grade 2

May 25 - June 1, 2020 - Week 1

### Friday - 30-45 minutes

#### Activity / Task

#### **Flood Water Retention**

To access this interactive lesson, visit https://tinyurl.com/HISDGrade2Day42

Objective: Analyze data related to surfaces and water retention.

#### Think About It!

What are some characteristics of areas of my neighborhood that flood when it rains? If you can, discuss this question and share your thinking with someone in your home.

#### Do It!

#### What you need:

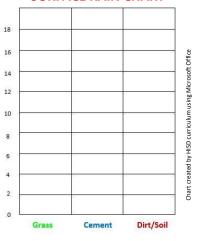
- Science notebook or piece of paper
- Surface Rain Data
- Surface Rain Chart
- Pencil
- Crayons or color pencils

#### What to do:

After several days of severe thunderstorms, the following data was taken to show how much rain had collected on 3 different surfaces: Grass. Cement. Dirt/Soil.

- Read and analyze the Surface Rain Data Chart.
- Complete the bar graph using the data from the surface rain chart.

#### **SURFACE RAIN CHART**



#### **SURFACE RAIN DATA CHART**

Type of Surface	Amount of Rain (mL)
Grass	9 mL
Cement	17 mL
Dirt/Soil	5 mL

Chart created by HISD curriculum using Microsoft Office

#### **Understand It!**

The data you used to create your bar graph was taken after a thunderstorm to show how much rain had collected on 3 different surfaces: Grass, Cement, Dirt/Soil.

- The greatest amount of rain was collected on the cement surface.
- The least amount of rain was collected on the dirt/soil.

#### Apply It!

Journal Reflection

Which surface would be the best to prevent flooding in your neighborhood? Explain your thinking.

Resources

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

Science - Grade 2

May 22 - June 1, 2020 - Week 2

#### Activity / Task

#### Monday – 30-45 minutes

Plan and Conduct a Descriptive Investigation

To access this interactive lesson, visit https://tinyurl.com/HISDGrade2Day43

Objective: Plan and conduct a descriptive investigation.

#### Think About It!

What types of questions do scientists ask? How do scientists solve problems or answer questions? If you can, discuss your thinking with someone in your home!

#### Do It!

#### What you need:

- A question to answer or solve
- **Descriptive Investigation Planning** Template shown or draw your own in your notebook
- Science notebook or a sheet of paper
- Pencil
- Crayons or markers
- Space to conduct your investigation
- Materials to use for your investigation/experiment

### **Descriptive Investigation Planning Template** Objective: I can plan and conduct simple, descriptive, investig Steps and Procedure: Question: Observations and Data: Conclusion:

Created by HISD Curriculum using Microsoft Office

#### What to do:

- Use your senses to observe things around you.
- Observe something new or something you already know about in a new way.
- Ask yourself questions about things around you.
- Choose (1) of your questions. Example: Do all small objects float?
- Predict: What will happen when you investigate your question?
- Plan your steps and complete the investigation.
- Observe: What do you see? What do you hear? What do you smell?
- Collect data (information) in your science notebook.
- Talk to someone in your home about your investigation.
- Record your conclusion or result.

#### **Understand It!**

Scientists observe the world around them using their senses. To observe things around them, scientists use their sense of hearing, touch, sight, and smell. Do not eat or drink anything during an investigation. Scientists ask questions about things they observe. They use steps to help them find answers to their question. Scientists follow science safety rules such as:

- Keep your work area neat and clean
- Keep loose clothes out of the way
- Be careful

#### Apply It!

Journal Reflection: Using your science notebook or the Descriptive Investigation Planning Template, record the steps, data, and results of your investigation.

Resources

Guided activity using Google slides













