

* Modified

7th GRADE NTI PACKET #26-30

Name: _____

Team: _____

Dear 7th Grade Maroon Parents & Guardians/ Students,

We can't thank you enough for the support, encouragement, and communication from all parents/guardians and students. We, as teachers, can't express how much we miss our students and how we are here for you all whenever you need us. Please feel free to reach out as we charter new territory with NTI Packets #26-30. We are now accepting completed packets in the Front Foyer of Harrison County Middle School. The front foyer is open 24/7.

TEACHER COMMUNICATION- MAROON

We want to highly encourage email during NTI Days. Students can use their google log in and log into google mail to communicate with their teachers.

- Language Arts/ Miranda Johnson- miranda.johnson@harrison.kyschools.us
- Math/ Melinda Persinger- melinda.persinger@harrison.kyschools.us
- Science/ Jaime Chapman- jaimе.chapman@harrison.kyschools.us
- Social Studies/ Whitney Criswell- whitney.criswell@harrison.kyschools.us
- Special Education/Taylor Hill- taylor.hill@harrison.kyschools.us

Students can also use the Remind 101 App to communicate to teachers. You can send a text to 81010 and text "@7mharrison" to be added to the Remind 101 reminders. If you download the free app, you can send text messages to teachers for communication. You can also call Harrison County Middle School at (859) 234-7124

TEACHER COMMUNICATION- GOLD

We want to highly encourage email during NTI Days. Students can use their google log in and log into google mail to communicate with their teachers.

- Language Arts/ Carla Fuller- carla.fuller@harrison.kyschools.us
- Math/ Roni Long- roni.long@harrison.kyschools.us
- Science/ Jean Jones- jean.jones@harrison.kyschools.us
- Social Studies/ Jenny Hyatt- jenny.hyatt@harrison.kyschools.us
- Special Education/Carline Ford- carline.ford@harrison.kyschools.us

"WE MISS YOU!"- From: ALL 7th Grade
Teachers

ELA : Reading NTI Packet days 26-30
NONFICTION

DAY 26	DAY 27	DAY 28	DAY 29	DAY 30
<p>ASSIGNMENT: Watch one televised daily news program either from local (Lexington-based) or national news such as CNN or FOX.</p> <p>While watching complete the attached sheet labeled " Daily News Connection".</p> <p>Alternate assignment: Read the article attached. If you choose to read the article you will answer the questions that go with the reading for today only. ** Only Days 26 and 29 offer an alternate assignment!</p>	<p>Assignment: Review text structures and complete the activities attached.</p> <p><u>5 types of text structures:</u> Description -describes a topic Cause and Effect - details an event/cause and tells the effects/issues Problem and solution- tells a problem and how to solve it or how it was solved Sequence of events -timeline Compare and contrast- similarities and differences</p>	<p>Assignment: Read the article from Scope Magazine and complete the attached assignments on text features and sequence of events.</p> <p>Text features help you find information in a text. Common types of text features: Maps, Timelines, Graphs, Charts, Bold Words, Italics, Key, Captions, Photos, Dictionary, Table of Contents, Titles, Subtitles, etc.</p>	<p>ASSIGNMENT: Watch one televised daily news program either from local (Lexington-based) or national news such as CNN or FOX.</p> <p>While watching complete the attached sheet labeled " Daily News Connection".</p> <p>Alternate assignment: Read the article attached. If you choose to read the article you will answer the questions that go with the reading for today only.</p>	<p>Assignment: Description Journaling</p> <p>Describe your experience at Harrison County Middle School/</p> <p>8th grade students : reflect on your 3 years at HCMS. Describe what you have loved, what you will miss, and what you look forward to in high school. Also, describe your favorite HCMS memory</p> <p>6th and 7th grade students: describe what you enjoy about HCMS and explain what future 6th grade students need to do in order to succeed at HCMS.</p>

Daily News Connection

Day 26

Name:

Directions: While watching the news program, answer the following questions. You must watch the programming for at least 30 minutes. *Read these questions prior to viewing the program!!*

1. Day and time of the news program you viewed:-

2. What channel or internet site was this program on?

Focus on one story or segment of the news program. Then answer the following questions based on that part of the news.

3. What is happening and What do you think about it?

4. Where and when does this event happen?

5. Why is this information important?

6. How does this make you feel? And Why?



Play it safe: What kids should know about the coronavirus outbreak

By Jason Bittel, Washington Post on 03.25.20

Word Count 977

Level MAX

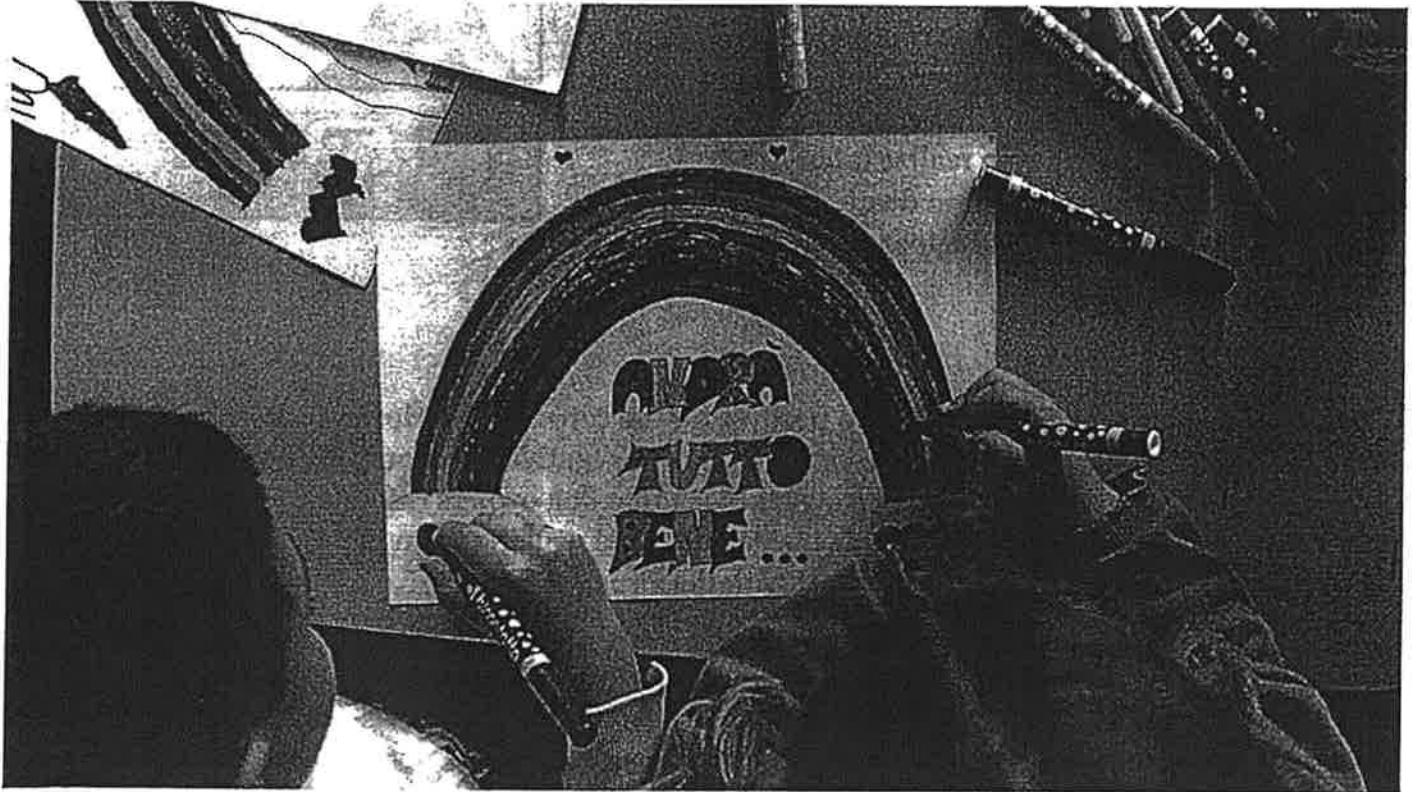


Image 1. Children draw a rainbow and the slogan of hope being shared in Italy, "Andrà tutto bene" (Everything will be alright), during quarantine measures amid the novel coronavirus COVID-19 pandemic on March 13, 2020, in Milan, Italy. Photo: Pietro D'Aprano/Getty Images

With schools closing across the nation in response to coronavirus concerns, many students may be jumping for joy. Others are worried, scared or confused. But as the American essayist Ralph Waldo Emerson wrote, "Knowledge is the antidote to fear."

With that in mind, let's answer a few common questions about coronavirus. Let's start with its name.

Everybody keeps talking about "coronavirus" and "covid-19." Which is it?

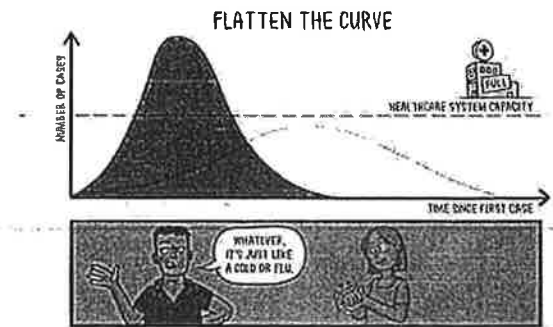
Technically, either of these terms could be correct, depending on how they are used. The actual virus that appeared in China at the end of 2019 and has since hopped across the world is called "SARS-CoV-2." This is short for "Severe Acute Respiratory Syndrome" and "coronavirus." Once the virus gets into a person, it can cause an illness known as "Coronavirus Disease 2019," or covid-19. Also, you might hear it referred to as a "novel coronavirus." This means that scientists already

knew about other coronaviruses, such as the one that caused an outbreak of SARS in Asia in 2003, but that this one is new.

How does covid-19 affect people?

The most common symptoms of covid-19 include fever, cough and/or shortness of breath. A person might develop one or more of these symptoms in as few as two days after being exposed to the virus. But they may also not feel sick for up to two weeks after contact.

Scientists say most people who get the virus will be able to fight it as they might a bad case of the flu. However, some people will have a harder time than others. Elderly people seem to be especially vulnerable. So are those with other conditions such as heart disease, lung disease or diabetes. Some people who have the virus won't even realize it but in the worst cases, covid-19 can result in death. Fortunately, death is extremely unlikely to happen in infected children and teenagers.



Can pets get covid-19?

So far, one dog in Hong Kong has tested positive for the coronavirus. However, it isn't showing any symptoms. So it's unclear whether the virus can have a negative effect on pets. According to the World Health Organization, there is no evidence yet that dog owners can catch the virus from their pets. Of course, if you keep your animals inside and avoid walking them in public places, they will be even more unlikely to come into contact with the virus.

Why are schools, stores and restaurants closing?

Because SARS-CoV-2 is new, our immune systems haven't had a chance to learn how to fight it off. This allows the virus to move around quickly, infecting many new people for each group it comes into contact with. This makes schools, stores, restaurants and other public gatherings the perfect places for the virus to spread.

The biggest concern now is that if enough people get sick at the same time, hospitals might not be able to keep up with the demand for treatment. This concern comes from what happened in Italy. This is a problem for those who need treatment because of covid-19. This is also a problem for anyone else who might need medical services for everything from a twisted ankle or a cut requiring stitches to more serious conditions.

Can this coronavirus be stopped?

There are many scientists around the world working to develop a vaccine. This could be used to halt the spread of this coronavirus for good. However, it will take time to develop that vaccine. There are measures communities and families can adopt in the meantime to help slow the virus' spread.

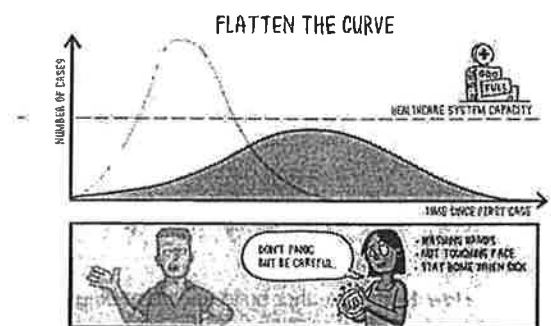
Why do we have to wash our hands so often?

First, washing your hands after going to the restroom or before handling food is a great practice in general. It can help you avoid catching all sorts of nasty illnesses. But hand-washing has become even more important as this coronavirus spreads. This is the easiest way to ensure you're washing your hands well enough: Use warm or cold water and soap and keep scrubbing every inch of your fingers, thumbs, palms and wrists. Scrub for the time it takes to sing "Happy Birthday to You" twice. The Centers for Disease Control and Prevention (CDC) has more tips at [cdc.gov/handwashing](https://www.cdc.gov/handwashing). (Also, remember to cover your cough with a tissue or at least your inner elbow.)

What is "social distancing"?

Your parents might not want you to play basketball with your neighbors. Or they might not want you to go to a party that was scheduled for next weekend. This is because of something called "social distancing." And while it seems like a bummer, experts say it's another way everyone can work together to limit the impact of this coronavirus.

The idea behind social distancing is simple. The fewer people we have close contact with each day, the fewer opportunities the virus has to spread. (The CDC says "close" is six feet or less.) And that means not only will you and your family have better chances of avoiding covid-19, but so will your grandparents, your Scout group and the person you sit next to in a bus. Any of these people might be at a higher risk to have a more serious reaction from the virus.



How long will this last?

Unfortunately, no one can answer that question yet. The CDC recommends that large events be canceled or postponed for at least the next eight weeks. Your parents, teachers and KidsPost will be coming up with creative ways to pass the time.

Quiz

- 1 Which sentence from the article shows hospitals' MAIN problem?
- (A) Some people who have the virus won't even realize it but in the worst cases, covid-19 can result in death.
 - (B) This makes schools, stores, restaurants and other public gatherings the perfect places for the virus to spread.
 - (C) The biggest concern now is that if enough people get sick at the same time, hospitals might not be able to keep up with the demand for treatment.
 - (D) And that means not only will you and your family have better chances of avoiding covid-19, but so will your grandparents, your Scout group and the person you sit next to in a bus.

- 2 Read the conclusion below.

Social distancing might be the key to stopping the coronavirus.

Which sentence from the article provides the BEST support to the statement above?

- (A) Your parents might not want you to play basketball with your neighbors.
 - (B) And while it seems like a bummer, experts say it is another way everyone can work together to limit the impact of this coronavirus.
 - (C) The fewer people we have close contact with each day, the fewer opportunities the virus has to spread.
 - (D) Any of these people might be at a higher risk to have a more serious reaction from the virus.
- 3 How does the author build understanding of the coronavirus pandemic?
- (A) by discussing the difference between "coronavirus" and "covid-19"
 - (B) by listing the symptoms of covid-19 and noting how long it might take to develop them
 - (C) by providing a timeline of the coronavirus pandemic
 - (D) by listing and answering common questions about the coronavirus

- 4 Read the following selection introducing the effect of the coronavirus on pets.

According to the World Health Organization, there is no evidence yet that dog owners can catch the virus from their pets. Of course, if you keep your animals inside and avoid walking them in public places, they will be even more unlikely to come into contact with the virus.

What does the author MOST LIKELY want the reader to think about the effect of the coronavirus on pets based on this selection?

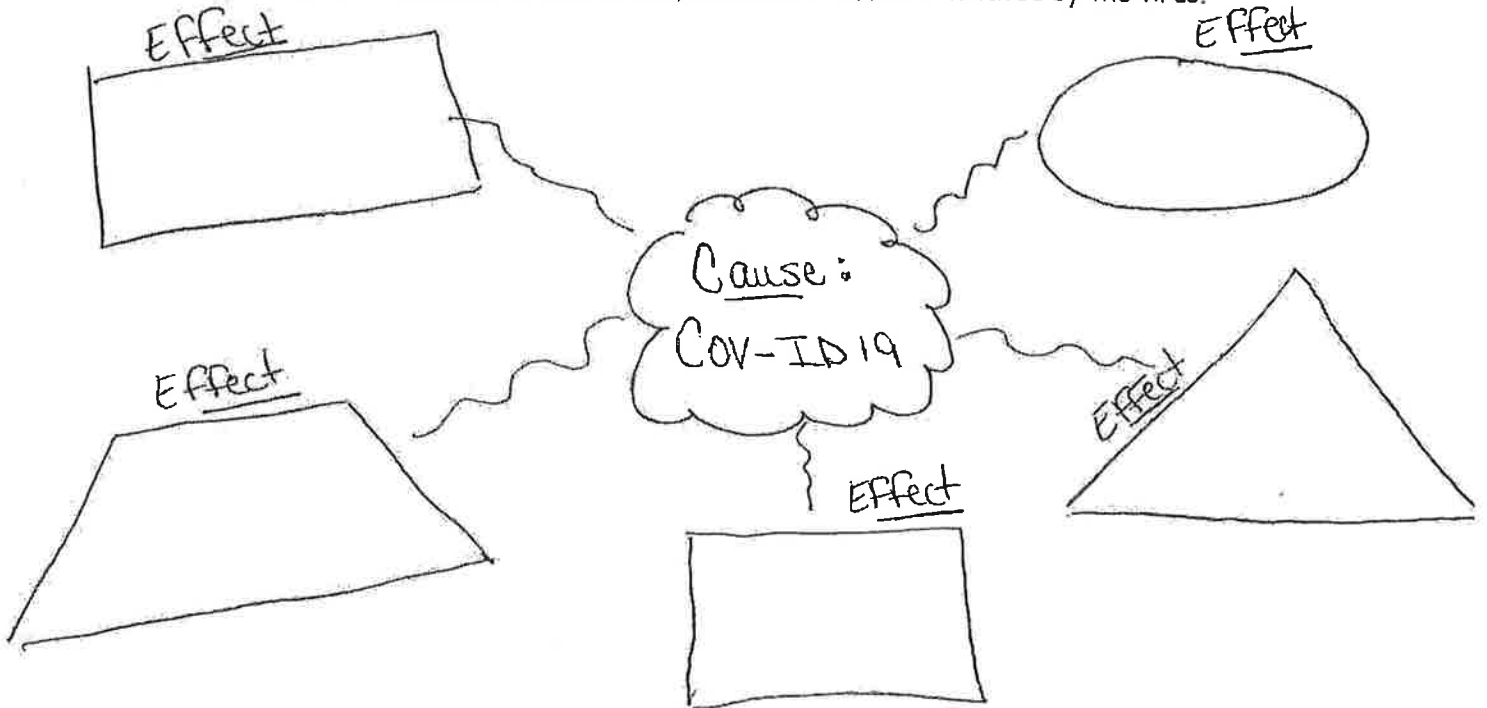
- (A) Though it is not likely that pets can spread the virus, pet owners should still take precautions.
- (B) Pet owners should practice social distancing with their pets, as animals are the main carriers of the virus.
- (C) Even though there is no evidence showing dog owners can catch the virus from their pets, it is very likely.
- (D) When social distancing, people should avoid both people and animals.

Text Structures

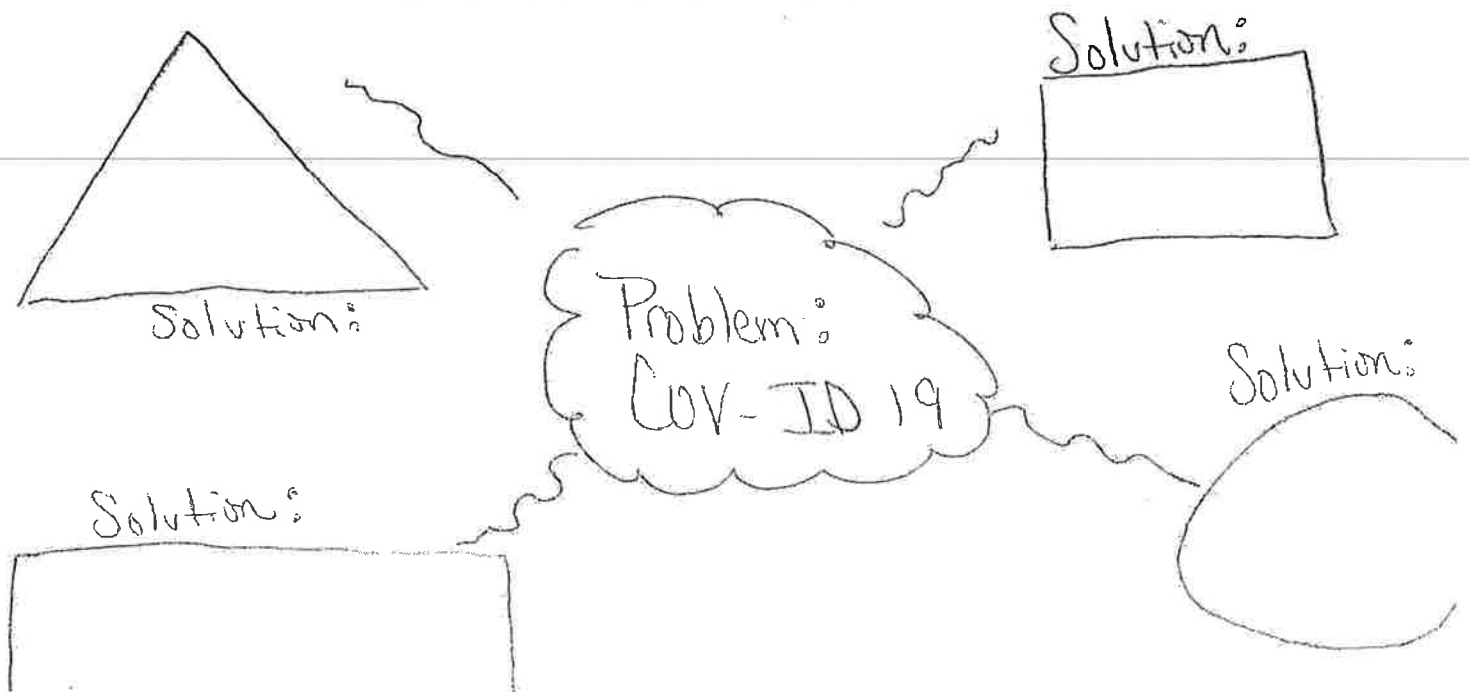
Day 27

Today we will focus on Cause and Effect and Problem and Solution text structures focusing on COV-ID 19. Using your knowledge and understanding of the virus complete the following activities. Another text structure that can be used is Question and Answer. While completing today's lesson, you can ask the family members in your home or call others to help you complete these activities by asking questions and using their answers to help.

Cause and Effect: The cause is COV-ID 19, list several effects created by the virus.



Problem and Solution: The problem is COV-ID 19, list ways that local, state, and national leaders have tried to solve the problem.



Day 28

We love this story, but we need your help to edit it.

Directions:

1. Read the article.
2. Note the words in bold.
3. Follow the prompts in the circles to revise and polish the writing.



The History of the

TRAMPOLINA

It all began with a whimsical idea:
Bouncing could be a lot of fun.

Trampoline inventor George Nissen (above) rented a kangaroo to bounce with him in New York City's Central Park. Today this would be considered cruel, but back then, animals were often used for entertainment.

It was 1930, and 16-year-old George Nissen was at the circus, watching a trapeze show. But Nissen wasn't watching the performers flipping and twisting high up in the air. His eyes were glued to the safety net stretched below them. At the end of each routine, the trapeze artists would let themselves fall into the net, which caught them like a springy mitt and **1** sent them back up into the air.

Now that looks fun, Nissen thought.

In that instant, the idea for the trampoline was born.

1
Revise this phrase to be more descriptive and fun.

2
These lines all have the same rhythm. Give this paragraph some zing by mixing up the sentence structures.

A POPULAR PASTIME

2 Nissen went home and began to work on a new invention. His gymnastics coach helped him. Nissen took a sheet of canvas. He stretched it across a frame made of steel. He called the contraption "the bouncing rig." He came up with a far better name a few years later. The name was trampoline. The name comes from the Spanish word for diving board.

Over the next few years, Nissen worked hard to improve his creation. He gave demonstrations all over the world to promote his trampoline. In 1941, he started a company that produced and sold trampolines—and he made millions of dollars.

Soon, trampolines were popping up all over America. **3** They were appearing in backyards. They were appearing at public "jump centers." They were appearing at some gas stations, where road-weary kids could bounce while their parents filled the gas tank. The U.S. military even used trampolines to train pilots and parachutists.

A DANGEROUS THRILL

There was no denying the thrill of jumping on a trampoline. But there was—and still is—a major problem: Trampolines are dangerous. Every year, thousands of bouncers are injured, some seriously. According to a 2014 study by the *Journal of Pediatric Orthopaedics*, trampoline-related injuries sent more than 1 million people to emergency rooms between 2002 and 2014—most of them children under age 16.

In 1989, the company Nissen started went out of business because it could not afford the lawsuits from people who were getting hurt on trampolines.

But Nissen never lost his passion for his invention. He continued trampolining until his death at age 96, and he lived to see one of his dreams come true: In 2000, trampolining became an Olympic sport.

4 So the next time you leap on a trampoline, be careful. And be sure to thank George Nissen for the **5** thrill of flying through the air. ●

3
Combine these three sentences into one.

4
Research trampoline safety and add some tips after this sentence.

5
The author already used this word. Replace it with another.

Editing Contest

Send your revised article to Trampoline Contest. Three winners will each get a \$25 Visa gift card and have their entries published online. See page 2 for details.

Go to Scope Online for a great activity.



Daily News Connection

Day 29

Name:

Directions: While watching the news program, answer the following questions. You must watch the programming for at least 35 minutes. *Read these questions prior to viewing the program!!*

8. Day and time of the news program you viewed:
9. What channel or internet site was this program on?
10. What events or situations have changed since you watched the news on Day 26?

Focus on one story or segment of the news program. Then answer the following questions based on that part of the news.

11. What is happening and What do you think about it?
-
12. Where and when does this event happen?
 13. How do you feel about the news you watched today? And Why?

A CREEPY

4

Is This Burger Bad for the Planet? In the News

8

Day of Disaster Nonfiction Feature

14

"I Was Adopted" True Teen Story

18

Is This Ghost Town Cursed? Weird But True

20

Sherlock Holmes and the Midnight Killer Readers Theater Play

26

Superman Becomes a Star/Superheroes Take Over the World Paired Texts

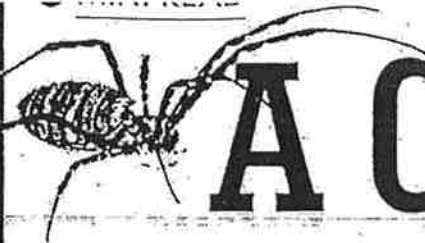
30

Does Lulu Need a Phone? Debate

32

Is This Your Future Home? Infographic

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Lauren Esposito travels the world studying scorpions and spiders. Here's what she wants you to know about these misunderstood creatures. BY ANNA STARECHESKI

If you were to see the animals on this page in real life, what would you do? Most people might run screaming. But not Lauren Esposito. She's a biologist—a scientist who studies living things. And her specialty is arachnids, like spiders and scorpions.

Lauren spends about half her time traveling the world looking for these creatures. Then she comes back home to write about what she found. We talked to her about working with some of the most feared animals on Earth.

Have you always loved arachnids?

Not exactly. But I would look

for bugs and worms in my garden as a kid. So I've always been drawn to creepy-crawly creatures.

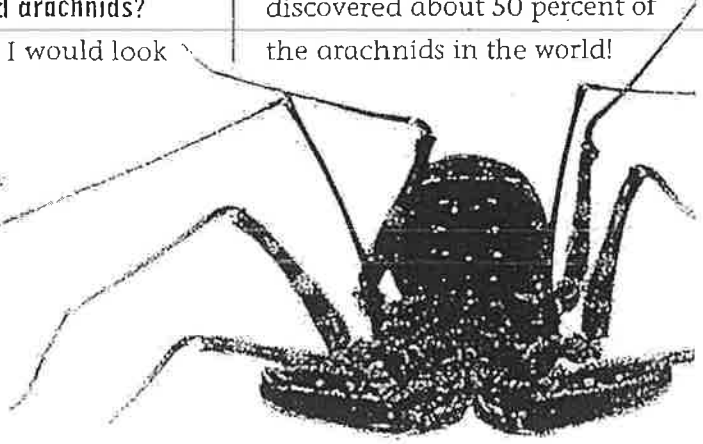
Why is it important to study arachnids?

They've been around since before the dinosaurs! They can teach us about how animals survive through time as Earth changes around them.

What's something that people might find surprising about your job?

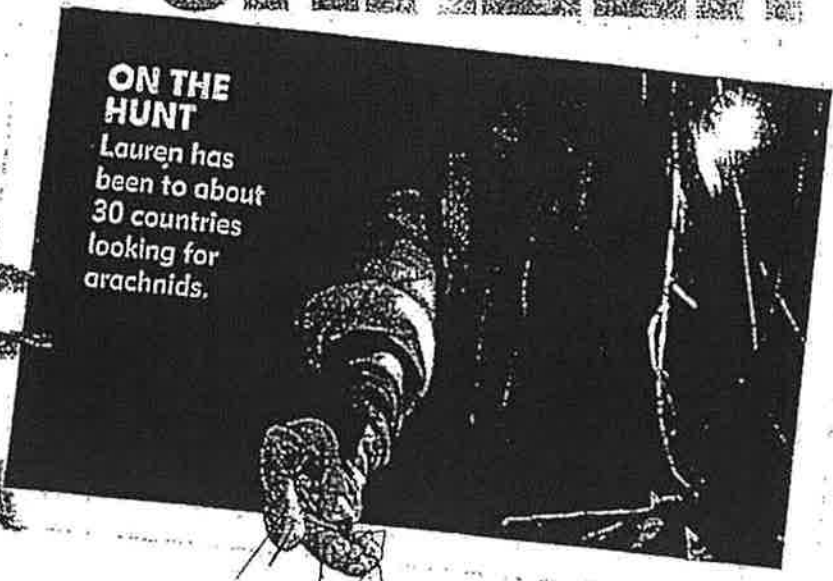
We are finding new species—types—of arachnids all the time. I collect about 100 new species every year. Scientists have only discovered about 50 percent of the arachnids in the world!

Lauren's favorite arachnid is the whip spider. They've been known to eat lizards and hummingbirds!



ONLINE EXTRA Go scorpion-hunting with Lauren in our video.

CAREER



What traits does a good biologist need?

You need to be curious and observant—always noticing what’s around you. And you have to be fascinated by nature!

A lot of people are afraid of arachnids. Why is that?

Well, the way they move is very alien to us. We’re not used to seeing things

walk around on the ceiling with eight legs! Plus, there are *some* arachnids that are venomous—that means they have a poisonous bite or sting. So people think *all* arachnids can hurt them.

What do you say to those people?

Fewer than 1 percent of all arachnids are dangerous

to humans. Most spiders can’t even bite people—their fangs are too small to get through human skin.

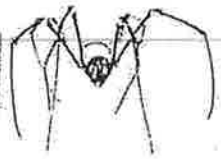
Have you ever been bitten or stung?

I was once stung by a scorpion. It felt like getting pricked by a thumbtack. I was totally fine! •



Mini Skills Workover

WHAT TO DO: Write your answers on the lines below.



1. How arachnids move is *alien* to us. What’s another word Lauren could have used? Write it here.

2. What are three traits a biologist needs?

3. Find a sentence where Lauren explains what we can learn from arachnids. Write it here.

HCMS Journal

Day 30

Complete your journal activity below.

8th grade students : reflect on your 3 years at HCMS. Describe what you have loved, what you will miss, and your favorite HCMS memory. Write a 3.8 paragraph to describe your HCMS journey.

6th and 7th grade students: describe what you enjoy about HCMS and explain what future 6th grade students need to do in order to succeed at HCMS.

Integer Math Menu Project

*To complete this project you need utilize the sections below to add up to 50 points. Each section is worth 10 points. If you do one section per day, you will be good!

<p>A, B, C, D, and E correspond to points on a thermometer. Use these clues to plot the points:</p> <ul style="list-style-type: none"> -B and D are negative -D is warmer than C -B is warmer than C -E and D are the same distance from zero -E is colder than A <p>Draw your own thermometer and include all the points with a corresponding integer value to show your answer.</p>	<p>Find 6 examples of integers in the newspaper, a magazine or on the internet. Clip out the examples or print out the examples and glue them to a piece paper. At least 2 must be negative numbers.</p>	<p>If today were 0 on a time line, use integers to represent 10 events in your life in the past(-) or the future(+). Make sure to use an interval and include the unit of measure. (years, days, weeks) Find the distance between 2 events using absolute value.</p>
<p>Write A short story that could be represented by the expression:</p> $24 + (-9) - (-4) + 33$ <p>Make sure to solve the equation in your story (Think about hot air balloons, football, temperature ect.)</p>	<p>Create an integer alphabet. Start with A=-12 and continue to Z=13. Then, find the value of your first and last name. Compare your first and last name using $>$, $<$ or $=$.</p>	<p>Write a word problem about a shark and a scuba diver. Show that the absolute value of their difference is the distance between the two. Draw a picture to represent the problem.</p>
<p>Use the letters in the word "integer" to make an acrostic poem or make an artistic design using the word "integer", that explains integers and where they can be found in the real world.</p>	<p>You start with \$55 in the bank. Create a bank account balance to show at least 6 withdrawals and 4 deposits. Your final balance should be made clear.</p>	<p>Create 5 integer problems on your own and draw a model explaining how to solve each.</p> <p>You could draw counters, or plus/negative signs, etc.</p>

7th Grade Science mod.

Resources for NTI #26-30

7th Grade Science Students,

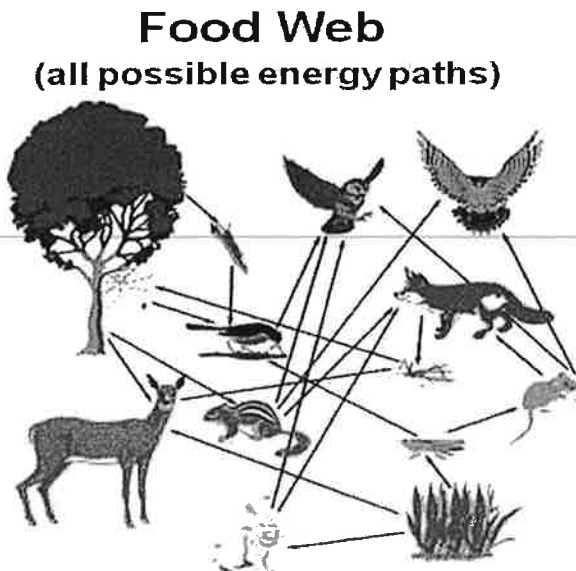
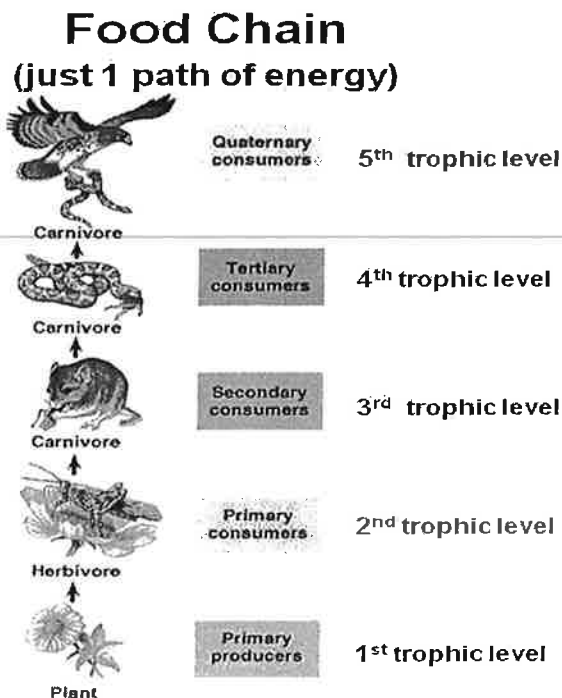
We have made you a “playlist” of videos you can use as a resource for our unit of review Interactions of Living Things. This unit is about ecology, abiotic/biotic factors, ecosystems, populations, food webs, and food chains. This is content from both 6th and 7th grade combined. WE MISS YOU ALL SO MUCH! We hope to see you very soon!

YOUTUBE VIDEOS:

Directions- Please go to youtube, and type in the titles of each video.

- Ecological Relationships
 - <https://www.youtube.com/watch?v=rNjPI84sApQ>
- Food Webs and Energy Pyramids: Bedrocks of Biodiversity
 - <https://www.youtube.com/watch?v=-oVavgmveyY>
- Population Ecology: The Texas Mosquito Mystery - Crash Course Ecology #2
 - <https://www.youtube.com/watch?v=RBOsqmBQBQk>

DIAGRAMS:



The *arrow* points to the eater and shows the transfer of energy.

Content Outline for Teaching

Section 1 The Environment

A. The study of interactions among organisms and their environment is called **ecology**.

B. **Abiotic factors**—nonliving parts of the environment

1. **Water** is needed by all organisms for cell and life processes.
2. **Light** and **temperature** determine where plants and animals can live.
3. **Air** gases such as oxygen, nitrogen, and carbon dioxide are needed by most species.
4. **Soil** types determine what plants and animals can live in an area.

C. **Biotic factors**—living or once-living parts of the environment

1. All members of one species living together form a **population**.
2. **Communities** are groups of populations that interact with each other in a given area.
3. The biotic community and its abiotic factors make up an **ecosystem**.
4. **Biomes** are large areas containing several ecosystems.
5. The **biosphere** includes the top layer of Earth's crust, all waters, and the atmosphere.

DISCUSSION QUESTION:

What abiotic factors affect living things? *Water, light, temperature, air, and soil*

Section 2 Interactions Among Living Organisms

A. Characteristics of **populations**

1. **Size**—number of individuals in a population
2. Number of individuals in a particular area is the **population density**.
3. Population **spacing**—how organisms are arranged in an area
 - a. **Evenly spaced**—consistent distance between organisms
 - b. **Randomly spaced**—individual location is independent of other individuals' locations
 - c. **Clumped spacing**—organisms group together
4. A biotic or abiotic factor that restricts the size of a population is called a **limiting factor**.
5. **Carrying capacity**—the maximum population size that can live in an environment over time
6. **Biotic potential**—the size a population could reach if no limiting factors stopped its growth

T2 Interactions of Living Things

Content Outline for Teaching (continued)

B. **Symbiosis**—close interactions between species

1. When both species benefit, the relationship is termed **mutualism**.
2. **Commensalism** is a form of symbiosis that helps one species but has no effect on the other.
3. When one species is harmed and the other benefits, the symbiosis is termed **parasitism**.
4. **Predation**—occurs when one species hunts, kills, and eats another
5. **Habitat**—where an organism lives
6. **Niche**—an organism's function in its ecosystem

DISCUSSION QUESTION:

What are the three kinds of symbiosis? *Mutualism, in which both organisms benefit; commensalism, in which one benefits and one is unaffected; parasitism, in which one is harmed and one benefits*

Section 3 Matter and Energy

A. **Energy**—moves through a community as producers and consumers interact

1. **Food chain**—how food energy moves from one organism to another
2. **Food webs**—overlapping food chains to better show the way energy moves through an ecosystem
3. **Ecological pyramids**—bottom layer of pyramid represents ecosystem producers; top layers represent consumers
4. **Energy pyramid**—compares the energy available at each level of a food chain; bottom levels have more energy than top levels

B. **Cycles of Matter**—matter that makes up living organisms, such as water, carbon, and nitrogen, are **recycled** through the environment

1. Processes of evaporation, condensation, and precipitation make up the **water cycle**.
2. Carbon, nitrogen, phosphorus, sulfur, and other elements needed by living organisms move through Earth's **biosphere**.

DISCUSSION QUESTION:

How is a food chain different from a food web? *A food chain is a simple illustration of showing how food energy moves; a food web better illustrates more complex, overlapping interrelationships of energy in an ecosystem.*

Underlined words and phrases are to be filled in by students on the Note-taking Worksheet.

Directed Reading for Content Mastery

Section 1 The Environment
Section 2 Interactions Among Living Organisms

Directions: Write the letter of the term that correctly completes each sentence in the space at the left.

1. Water, sunlight, temperature, soil, and air are _____.
a. biotic factors b. abiotic factors
2. Organisms depend on other organisms for food, shelter, protection, and reproduction. These other organisms are _____.
a. biotic factors b. abiotic factors
3. All the mallard ducks living on a lake at the same time make up a _____.
a. population b. community
4. A population of squirrels and all the populations they interact with make up a _____.
a. community b. biosphere
5. A coral reef is an example of an _____.
a. abiotic factor b. ecosystem
6. Scientists call tropical rain forests and mountains _____.
a. biomes b. ecosystems
7. Biomes, communities, and populations are part of the _____.
a. biosphere b. ecosystem
8. The number of individual organisms that occupy a definite area is called population _____.
a. size b. density
9. If the amount of food in an area can support only a certain number of deer in a population, the amount of food is called a _____.
a. carrying capacity b. limiting factor
10. A relationship that benefits one organism without affecting the other is called _____.
a. commensalism b. predation
11. A relationship that benefits both organisms is called _____.
a. parasitism b. mutualism
12. The pond a frog lives in is called its _____.
a. niche b. habitat

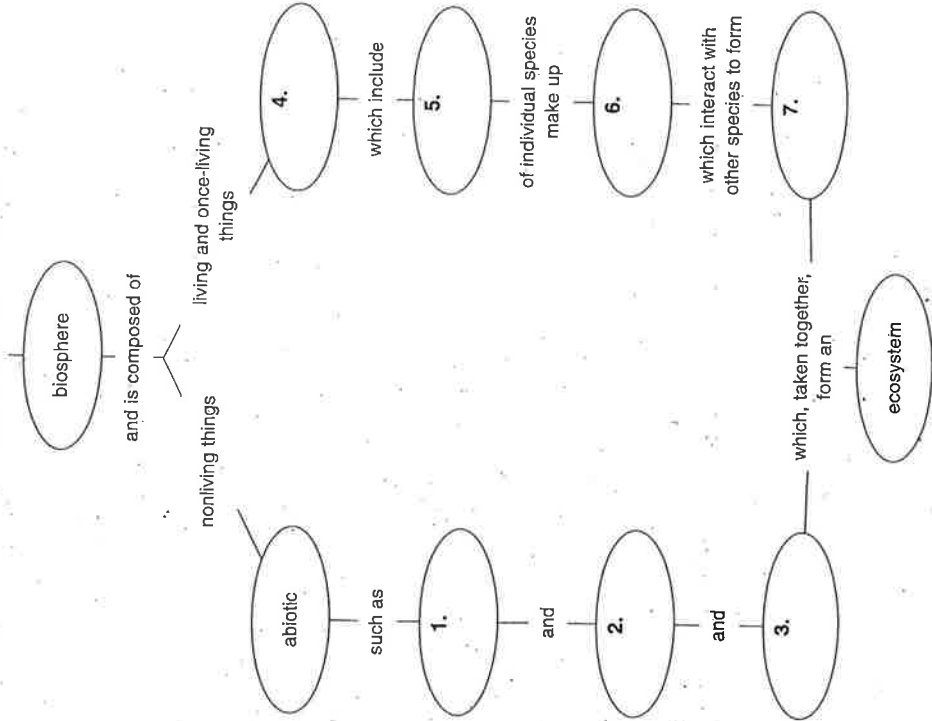
Directed Reading for Content Mastery

Overview Interactions of Living Things

Directions: Complete the concept map using the terms in the list below.

- air water biotic organisms soil communities populations

The part of Earth that supports life is the



mad.

Directed Reading for Content Mastery

Key Terms Interactions of Living Things

Directions: Match the terms in Column II with the definitions in Column I. Write the letter of the correct term in the blank at the left.

Column I

1. factors that are the living or once-living parts of the environment
2. where an organism lives
3. all communities in an area and the abiotic factors that affect them
4. any close interaction between two or more different species
5. role of an organism in the ecosystem
6. factors that are the nonliving parts of the environment
7. populations of different species that interact in some way
8. factor that affects the number of individuals in a population
9. all the members of one species that live in the same place at the same time
10. number of individuals in a population that occupy a definite area
11. study of the interactions among organisms and their environment
12. way of showing how energy in the form of food passes from one organism to another
13. part of Earth that supports life

Column II

- a. symbiosis
- b. ecology
- c. community
- d. abiotic
- e. population
- f. food chain
- g. niche
- h. biotic
- i. biosphere
- j. ecosystem
- k. habitat
- l. population density
- m. limiting factor

Meeting Individual Needs

Directed Reading for Content Mastery

Section 3 - Matter and Energy

Directions: Circle the terms that correctly complete each sentence below.

1. When one organism eats another, energy in the form of food is transferred from the (eaten/eater) to the (eaten/eater).
2. In the carbon cycle, plants remove carbon from the air and use it to make (carbohydrates/water).
3. At each level of a food chain, organisms lose energy as (sunlight/heat). Energy is renewed constantly by (food/sunlight).
4. Organisms use (nitrogen/carbon) to make proteins.
5. The law of conservation of mass states that (energy/matter) is never lost or gained.

Directions: Complete the paragraphs using the terms listed below.

food chain **decomposers** **consumers** **producers** **food web**

- Plants are 6. _____; they capture and use energy from the Sun and use it to produce carbohydrates. Animals are 7. _____; they obtain energy when they feed on producers or other animals. Mushrooms are 8. _____; they obtain energy as they break down the remains of organisms. This movement of energy through a community is known as a 9. _____ which, in turn, combines with others like it to form a 10. _____.

Modified
7th Grade Days 26-30 Social Studies
NTI Assignments

Days 26-30: This week we will be working on a Mini-DBQ (Data Based Question) that will have you evaluate the greatest achievement of the Mayan Empire. Each day you will read a document and then answer questions about the document. This will be your research for Friday's assignment.

Day 26: Read **Document A: The Mayan Trade Network**. Then read the questions. Go back for a second read of the document and actively search for answers. Hi-light what you find. Choose **3** questions to answer in complete sentence form. Work should be completed on notebook paper.

Day 27: Today you will move on to **Document B: Building Cities**. Again read and then choose **3** questions to answer. Remember to restate and write your answer in sentences form. Complete the questions on notebook paper.

Day 28: Explore **Document C: The Mayan Number System**. Make sure to read the captions of the artifacts as there is lots of good information found there as well. Once you have read the document, pick **3** questions to answer on notebook paper.

Day 29: **Document D: The Mayan Calendar** is today's assignment. Investigate what the author of the document is trying to convey about the Mayans and this achievement. Decide which **3** questions that you want to answer and make sure they are in restated sentence form on notebook paper.

Day 30: Read the background essay, "**The Mayans: What Was Their Greatest Achievement?**" Think like a historian and see if this essay corroborates the other documents that you have assessed this week. Gather any other facts that will help you support a claim from this document. Once you have all of your information ready, create a poster or an award for the following topic: What was the greatest achievement of the Mayan Empire? Make the poster or award colorful. Use pictures and words that help explain why you think this was the greatest achievement of the Myans.

Additional Resources to Enhance your Learning:

*Check Mrs. Criswell's Google Classroom or Class Website (<https://sites.google.com/harrison.kyschools.us/criswell/>) for additional resources throughout the next couple of weeks.

*Students on either team can access NTI resources, help, and communicate using the 7th Grade Social Studies NTI Google Classroom (classroom.google.com). The code is xxedzpd.

You can access BrainPop videos on each civilization on Mrs. Criswell's Google Classroom or by the links below.

Use the following login information:

Username: hcmscolts

Password: harrison20

Video 1- <https://www.brainpop.com/socialstudies/ancientcultures/mayacivilization/>

Maya-

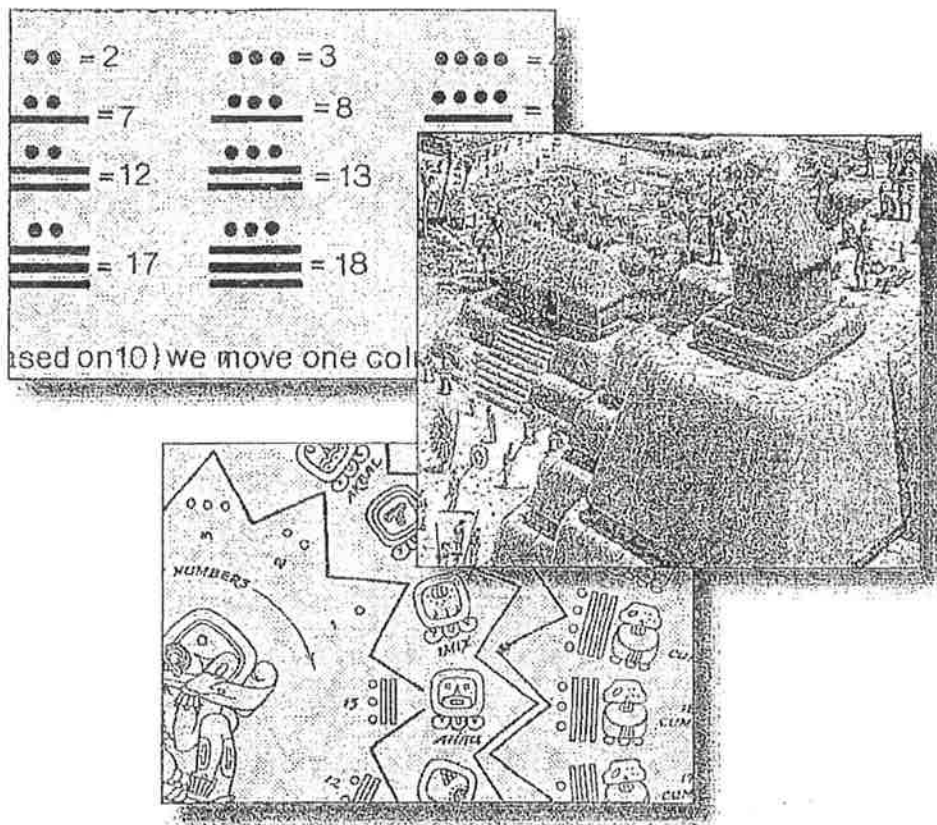
1. Video with fascinating facts about the Maya- <https://www.youtube.com/watch?v=3odJDGKPPTU>
2. Video about the Mayan sacred ball game- <https://vimeo.com/88365226>

Digital Interactives with facts about the cultures of the ancient American peoples. <https://carlos.emory.edu/htdocs/ODYSSEY/AA/aafront.htm>

Learn more about these three ancient civilizations with this interactive presentation- <https://www.sutori.com/story/aztec-inca-maya--mD55p7qumfe14PpZVvE2kgK1>

The Maya: What Was Their Most Remarkable Achievement?

EV



Overview: The Maya flourished over a thousand years ago in the rainforests of Mesoamerica. Their intellectual and technical mastery in many areas has intrigued and amazed those who have studied them. This Mini-Q asks you to examine the Mayan civilization and decide which of its accomplishments was the most impressive.

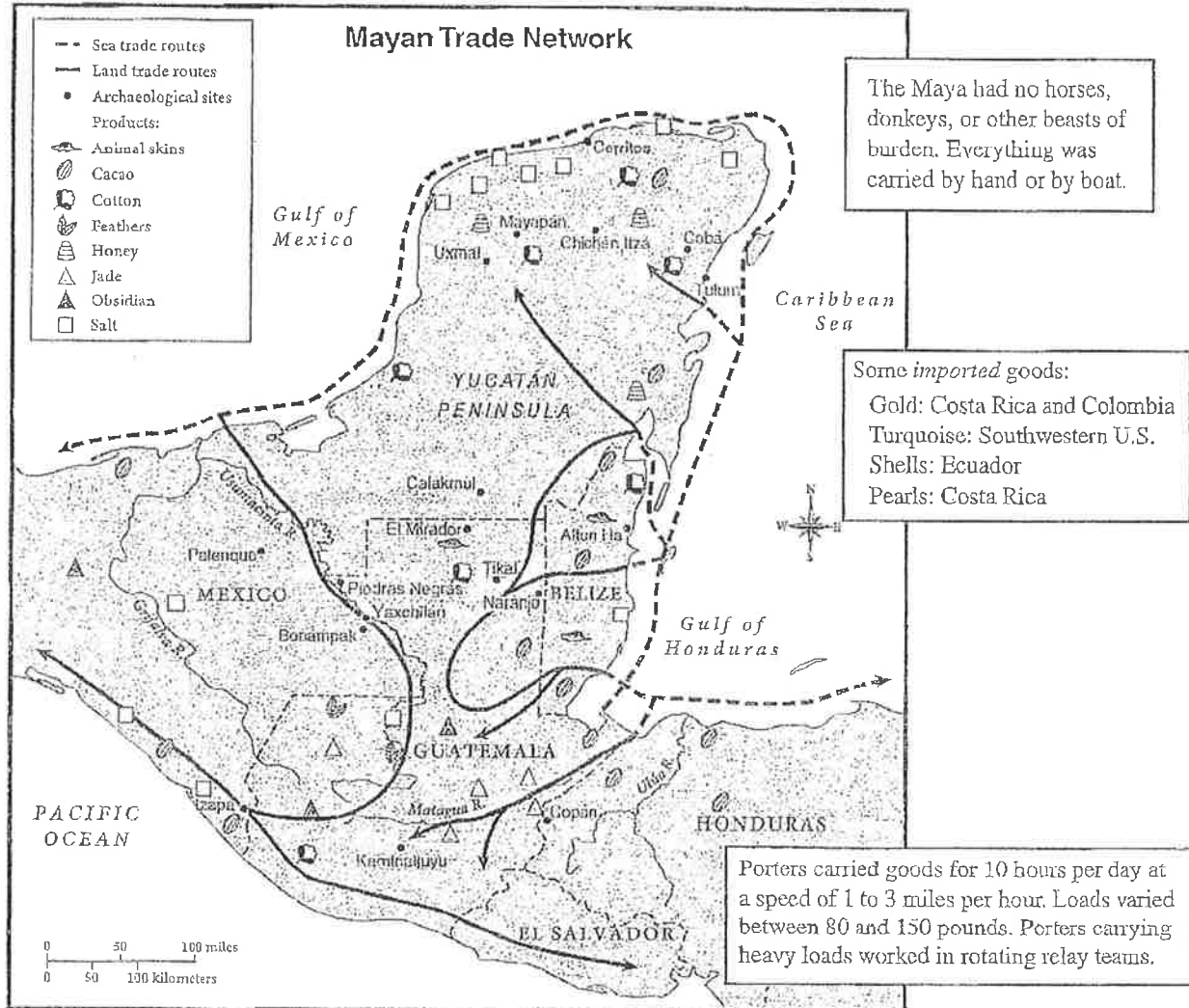
The Documents:

- Document A: The Mayan Trade Network (map)
- Document B: Building Cities
- Document C: The Mayan Number System
- Document D: The Mayan Calendar

A Mini Document Based Question (Mini-Q)

Document A

Source: Map created from various sources.



Document Analysis

1. Where did most of the salt come from? What reason explains that?
2. We know that the Maya widely cultivated maize, or corn. Why do you suppose it is not listed as a trade item on this map?
3. If the people of Cerritos traded with the people of Mayapán, what goods might they exchange? How about the people of Copán and the people of El Mirador?
4. How would the trade shown on this map improve life for people across the Mayan region?
5. Using at least two measuring sticks – scale, genius, physical effort and significance – describe what is remarkable about the Mayan trade network.

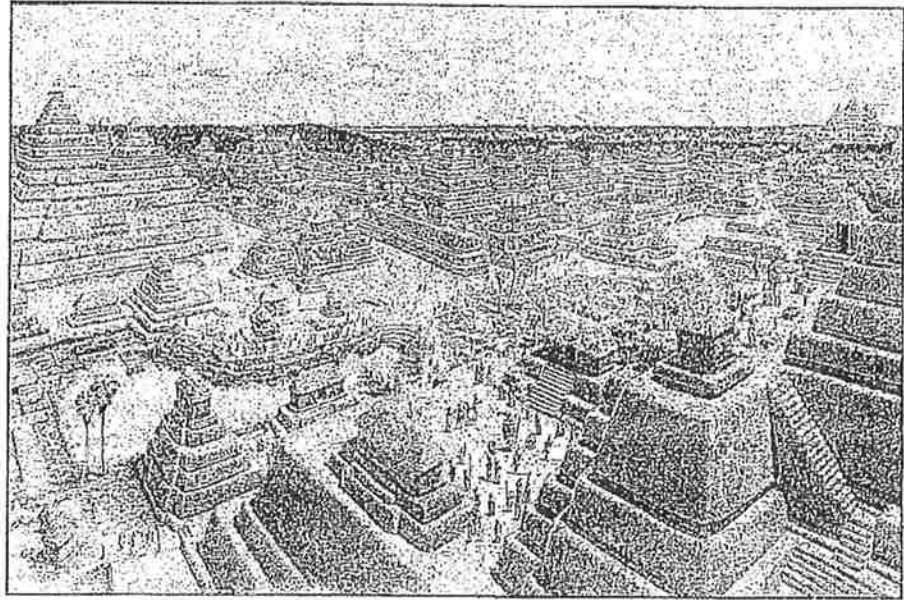
Document B

Source: Lynn V. Foster, *Handbook to Life in the Ancient Maya World*, Facts on File, Inc., New York, NY, 2002.

Archaeologists have argued that civilization requires urban centers and that the measure of a civilization can be made by the architecture of its cities.... Based on its architectural remains, Maya civilization ranks as one of the great pre-industrial cultures of the world.

... By 1975, archaeologists had catalogued more than 2,500 Maya locations of varying size and date with some stone construction. Numerous cities with populations in the tens of thousands have left a monumental record in the preconquest* era.

... Masonry architecture required central organization, craft specialization, and political power to command a large workforce.... The Maya were able to organize the labor ... of masons, plasterers, and supervising architects to build and maintain their cities of immense stone pyramids, stone palaces, and temples, ball courts, and other ritual buildings. For the single home of



The Mayan City of El Mirador

a Copán** nobleman, it has been estimated that at least 80 to 130 workers would have been employed fulltime to finish it in two to three months. The densest urban core of a city such as Tikal*** covered six square kilometers (more than two square miles), so the number of workers involved in construction and reconstruction must have been immense.

*Before the Spanish arrived (around 1524 CE)

**Mayan city of about 25,000 in Honduras

***One of largest Mayan cities, with population of 70,000

Document Analysis

1. What is a pre-industrial culture?
2. What was the estimated population of ancient Copán? Of ancient Tikal?
3. What does the ability to build great buildings out of stone tell you about Mayan political power? Explain.
4. Which criterion of "remarkableness" is best demonstrated by the drawing of El Mirador? Explain.
5. Using at least two of our working criteria – scale, genius, effort, and significance – what was remarkable about Mayan architecture?

Document C

Source: Ralph Whitlock, *Everyday Life of the Maya*, Hippocrene Books, 1987.

Note: We write numbers using a system in which the value of each digit depends on its position within the number. The digit furthest to the right stands for ones, the next digit to the left stands for tens, and so on. This type of system cannot work without a symbol for zero to show when a position is empty. The Maya used a positional system based on the number 20, rather than the number 10, and they were one of the first cultures in the world to develop the idea of the zero.

THE MAYAN NUMBER SYSTEM

The Maya used only three signs: the dot, • (1), the bar, — (5), and the shell, ☉ (0).

The first nineteen numerals were written as follows:

☉ = 0	• = 1	•• = 2	••• = 3	•••• = 4
— = 5	• — = 6	•• — = 7	••• — = 8	•••• — = 9
— — = 10	• — — = 11	•• — — = 12	••• — — = 13	•••• — — = 14
— — — = 15	• — — — = 16	•• — — — = 17	••• — — — = 18	•••• — — — = 19

Just as with our decimal system (based on 10) we move one column to the left when we reach 10, so with the Mayan vigesimal system (based on 20) they moved one rung upwards when they reached 20.

The numbers 21 to 25 were written as follows:

• • = 21	• •• = 22	• ••• = 23	• •••• = 24	• — = 25	☉ = 20
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Some examples:

•• ☉ = 2 × 20 = 40	— — — ☉ = 5 × 20 = 100	— — — • = (5 × 20) + 1 = 101
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In our decimal system, we move a further column to the left when we reach 10 × 10 = 100. In the same way the Maya moved a further rung upwards (to make three rungs) when they reached 20 × 20 = 400.

Some examples:

•• (2 × 400)	••• (3 × 400)
•• + (2 × 20)	— — — + (5 × 20)
— — — + 5 + 2 = 847	•• + 2 = 1302

EV

Document Analysis

1. On what number was the Mayan number system based?
2. What symbol did the Maya use for zero? What symbols did they use for one and for five?
3. How did the Maya write: a. zero b. 7 c. 26 d. 60 e. 401?
4. Why is it important to have a symbol for zero?
5. Using at least two measuring sticks – scale, genius, effort and significance – describe what was remarkable about the Mayan system of mathematics.

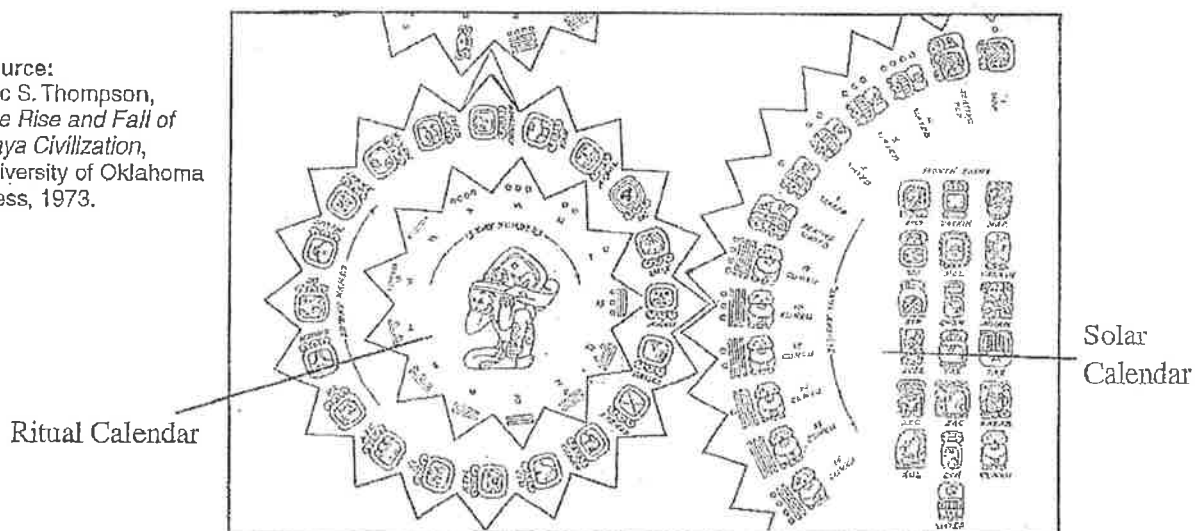
Document D

Source: Barbara L. Beck, *The Ancient Maya*, Franklin Watts, 1983.

The Maya had two main calendars. One was the sacred or ritual calendar, called tzolkin. It was a cycle of 260 days, and it marked the ceremonial life of the people. They also had a civil calendar, based on the solar year. This calendar had eighteen months of twenty days each, adding up to 360 days in all. To this were added five unlucky days, called Uayeb, to make a total of 365 days as in our calendar. This solar calendar was called haab.... The two calendar cycles were used together. They were like two cogged wheels, revolving alongside each other, with the cogs (days) meshing as the wheels turned.

... The Maya ... developed the calendar further than any other New World people, and their calendar was more accurate than any other of their time. They were masters of the science of time measurement Observatories were built, at Chichén Itzá and other cities, to use in studying the movements of the sun and the moon, planets such as Venus and Mars, and the stars. The Maya priest-astronomers collected information over many years in order to make their predictions and develop their systems. So great was their knowledge that they could predict eclipses of the moon....

Source:
Eric S. Thompson,
*The Rise and Fall of
Maya Civilization*,
University of Oklahoma
Press, 1973.



Note: In addition to their ritual and solar calendars, the Maya kept a long count cycle that began in 3114 BCE and was scheduled to end 5,200 years later on December 20, 2012.

Document Analysis

1. What were the names of the three Mayan calendars? (Hint: See note also.)
2. What probably explains why the Maya used 20-day segments in their ritual calendar and 20-day months in their solar calendar?
3. Which calendar was used to keep track of religious days? Explain.
4. Which calendar would have been most useful in predicting the beginning of rainy seasons? Why?
5. Using at least one measuring stick – scale, genius, effort, or significance – describe what was remarkable about the Maya's development of their calendar.

The Maya: What Was Their Most Remarkable Achievement?

History is rich with stories of great human achievement. Consider the Egyptians, who built the pyramids; the Greeks, who invented and practiced democracy; the Chinese, who conceived and constructed the Great Wall. In the Western Hemisphere, no early culture was more remarkable than the Maya.

Mesoamerica is that part of modern-day Central America that includes southern Mexico, Belize, Guatemala, and Honduras. This region has been the Mayan home for 3,000 years. Until 500 years ago, the Maya lived in isolation from the rest of the world, practicing **slash-and-burn agriculture** and raising crops such as corn, beans, and squash. They also hunted animals in the surrounding rainforest. As their culture developed, especially during the **classic** period of 250 to 900 CE, the Maya built magnificent cities with stone plazas, royal palaces, ball courts, and temple-topped pyramids. Unfortunately, Mayan **city-states** often warred against each other, and alliances constantly shifted. As a result, the Mayan people were never unified under a single government the way many other ancient societies were.

Despite this conflict, the various Mayan groups shared cultural similarities. They used a common writing system and organized their lives around a complex calendar that tracked religious ceremonies honoring the many Mayan gods. In one of their most important **rituals**, religious and political leaders – including the king – would pierce themselves with stone knives and offer their blood to feed the gods. Like the Aztecs, who flourished centuries later, the Maya practiced human sacrifice and torture as a way to keep the gods satisfied.

Sometime around the year 900 CE, the Maya abandoned many of their cities and moved to the highlands of modern-day Central America.

Scholars still don't know why this happened; it may have been because of overpopulation, overuse of the land, disease, or warfare. Whatever the reason, jungle soon covered the thousands of Mayan buildings and farms left behind. A great society appeared to go silent. When the Spanish arrived 600 years later, they did make some effort to preserve the surviving Mayan languages in dictionaries, but did little else to save the ancient culture.

It is important to say that the people never did disappear. About five million Mayans still live in Mesoamerica, speaking more than two dozen dialects of the Mayan language and

practicing some of the old ways. Though the ancient Maya long remained a nearly-forgotten, mysterious people, in more recent years ignorance and neglect of the culture have changed to

keen interest. Archaeologists have done much to find and uncover ancient temples and tombs, farmlands and town sites. Artists and experts in ancient language have managed to crack the code of Mayan writing. Armed with their new ability to read ancient **glyphs**, historians are bringing the lost Maya to life. For so long a mystery, the ancient Maya are emerging as a real, full-blooded people.

What follows are several documents showing Mayan accomplishment. To measure these accomplishments, and to help make your thinking more precise, pay special attention to four criteria for judging remarkableness:

Scale: how big was the accomplishment?

Genius: how brilliant or cutting-edge was it?

Effort: how hard was it physically or intellectually?

Significance: what was its impact on society?

Then, using these criteria, answer the question posed by this Mini-Q: *The Maya: What was their most remarkable achievement?*

