# 7th GRADE
# NTI PACKET #16-20

**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 #16-20.

## NTI PACKETS #16-20

These NTI packets will be a little different because EVERY packet is a little bit of each subject. Every NTI Day will have math, language arts, science, and social studies. There will be new content for every subject. We are providing students with notes and information inside of the NTI Pcaket. We are also providing great technology resources students can use to assist with their learning of new content.

## 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- jaime.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.walker~~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

NASP

NATIONAL ASSOCIATION OF
School Psychologists

NASN

*National Association of School Nurses*

**February 29, 2020**

# Talking to Children About COVID-19 (Coronavirus)
## A Parent Resource

A new type of coronavirus, abbreviated COVID-19, is causing an outbreak of respiratory (lung) disease. It was first detected in China and has now been detected internationally. While the immediate health risk in the United States is low, it is important to plan for any possible outbreaks if the risk level increases in the future.

Concern over this new virus can make children and families anxious. While we don't know where and to what extent the disease may spread here in the United States, we do know that it is contagious, that the severity of illness can vary from individual to individual, and that there are steps we can take to prevent the spread of infection. Acknowledging some level of concern, without panicking, is appropriate and can result in taking actions that reduce the risk of illness. Helping children cope with anxiety requires providing accurate prevention information and facts without causing undue alarm.

It is very important to remember that children look to adults for guidance on how to react to stressful events. If parents seem overly worried, children's anxiety may rise. Parents should reassure children that health and school officials are working hard to ensure that people throughout the country stay healthy. However, children also need factual, age appropriate information about the potential seriousness of disease risk and concrete instruction about how to avoid infections and spread of disease. Teaching children positive preventive measures, talking with them about their fears, and giving them a sense of some control over their risk of infection can help reduce anxiety.

## Specific Guidelines

**Remain calm and reassuring.**

- Children will react to and follow your verbal and nonverbal reactions.
- What you say and do about COVID-19, current prevention efforts, and related events can either increase or decrease your children's anxiety.
- If true, emphasize to your children that they and your family are fine.
- Remind them that you and the adults at their school are there to keep them safe and healthy.
- Let your children talk about their feelings and help reframe their concerns into the appropriate perspective.

**Make yourself available.**

- Children may need extra attention from you and may want to talk about their concerns, fears, and questions.
- It is important that they know they have someone who will listen to them; make time for them.
- Tell them you love them and give them plenty of affection.

**Avoid excessive blaming.**

- When tensions are high, sometimes we try to blame someone.
- It is important to avoid stereotyping any one group of people as responsible for the virus.
- Bullying or negative comments made toward others should be stopped and reported to the school.
- Be aware of any comments that other adults are having around your family. You may have to explain what comments mean if they are different than the values that you have at home.

**Monitor television viewing and social media.**

- Limit television viewing or access to information on the Internet and through social media. Try to avoid watching or listening to information that might be upsetting when your children are present.
- Speak to your child about how many stories about COVID-19 on the Internet may be based on rumors and inaccurate information.
- Talk to your child about factual information of this disease—this can help reduce anxiety.
- Constantly watching updates on the status of COVID-19 can increase anxiety—avoid this.
- Be aware that developmentally inappropriate information (i.e., information designed for adults) can cause anxiety or confusion, particularly in young children.
- Engage your child in games or other interesting activities instead.

**Maintain a normal routine to the extent possible.**

- Keep to a regular schedule, as this can be reassuring and promotes physical health.
- Encourage your children to keep up with their schoolwork and extracurricular activities, but don't push them if they seem overwhelmed.

**Be honest and accurate.**

- In the absence of factual information, children often imagine situations far worse than reality.
- Don't ignore their concerns, but rather explain that at the present moment very few people in this country are sick with COVID-19.
- Children can be told this disease is thought to be spread between people who are in close contact with one another—when an infected person coughs or sneezes.
- It is also thought it can be spread when you touch an infected surface or object, which is why it is so important to protect yourself.
- For additional factual information contact your school nurse, ask your doctor, or check the https://www.cdc.gov/coronavirus/2019-ncov/index.html website.

**Know the symptoms of COVID-19.**

- The CDC believes these symptoms appear in a few days after being exposed to someone with the disease or as long as 14 days after exposure:
  - Fever
  - Cough
  - Shortness for breath
- For some people the symptoms are like having a cold; for others they are quite severe or even life threatening. In either case it is important to check with your child's healthcare provider (or yours) and follow instructions about staying home or away from public spaces to prevent the spread of the virus.

**Review and model basic hygiene and healthy lifestyle practices for protection.**

- Encourage your child to practice every day good hygiene—simple steps to prevent spread of illness:
  - Wash hands multiple times a day for at least 20 seconds (singing Twinkle, Twinkle Little Star slowly takes about 20 seconds).
  - Cover their mouths with a tissue when they sneeze or cough and throw away the tissue immediately, or sneeze or cough into the bend of their elbow. Do not share food or drinks.

- Practice giving fist or elbow bumps instead of handshakes. Fewer germs are spread this way.
- Giving children guidance on what they can do to prevent infection gives them a greater sense of control over disease spread and will help to reduce their anxiety.
- Encourage your child to eat a balanced diet, get enough sleep, and exercise regularly; this will help them develop a strong immune system to fight off illness.

**Discuss new rules or practices at school.**

- Many schools already enforce illness prevention habits, including frequent hand washing or use of alcohol-based hand cleansers.
- Your school nurse or principal will send information home about any new rules or practices.
- Be sure to discuss this with your child.
- Contact your school nurse with any specific questions.

**Communicate with your school.**

- Let your school know if your child is sick and keep them home. Your school may ask if your child has a fever or not. This information will help the school to know why your child was kept home. If your child is diagnosed with COVID-19, let the school know so they can communicate with and get guidance from local health authorities.
- Talk to your school nurse, school psychologist, school counselor, or school social worker if your child is having difficulties as a result of anxiety or stress related to COVID-19. They can give guidance and support to your child at school.
- *Make sure to follow all instructions from your school.*

## Take Time to Talk

You know your children best. Let their questions be your guide as to how much information to provide. However, don't avoid giving them the information that health experts identify as critical to ensuring your children's health. Be patient; children and youth do not always talk about their concerns readily. Watch for clues that they may want to talk, such as hovering around while you do the dishes or yard work. It is very typical for younger children to ask a few questions, return to playing, then come back to ask more questions.

When sharing information, it is important make sure to provide facts without promoting a high level of stress, remind children that adults are working to address this concern, and give children actions they can take to protect themselves.

Information is rapidly changing about this new virus—to have the most correct information stay informed by accessing https://www.cdc.gov/coronavirus/2019-ncov/index.html.

**Keep Explanations Age Appropriate**

- Early elementary school children need brief, simple information that should balance COVID-19 facts with appropriate reassurances that their schools and homes are safe and that adults are there to help keep them healthy and to take care of them if they do get sick. Give simple examples of the steps people take every day to stop germs and stay healthy, such as washing hands. Use language such as "adults are working hard to keep you safe."
- Upper elementary and early middle school children will be more vocal in asking questions about whether they truly are safe and what will happen if COVID-19 comes to their school or community. They may need assistance separating reality from rumor and fantasy. Discuss efforts of school and

community leaders to prevent germs from spreading.

- Upper middle school and high school students are able to discuss the issue in a more in-depth (adult-like) fashion and can be referred directly to appropriate sources of COVID-19 facts. Provide honest, accurate, and factual information about the current status of COVID-19. Having such knowledge can help them feel a sense of control.

**Suggested Points to Emphasize When Talking to Children**

- Adults at home and school are taking care of your health and safety. If you have concerns, please talk to an adult you trust.
- Not everyone will get the coronavirus (COVID-19) disease. School and health officials are being especially careful to make sure as few people as possible get sick.
- It is important that all students treat each other with respect and not jump to conclusions about who may or may not have COVID-19.
- There are things you can do to stay health and avoid spreading the disease:
  - Avoid close contact with people who are sick.
  - Stay home when you are sick.
  - Cover your cough or sneeze into your elbow or a tissue, then throw the tissue in the trash.
  - Avoid touching your eyes, nose, and mouth.
  - Wash hands often with soap and water (20 seconds).
  - If you don't have soap, use hand sanitizer (60–95% alcohol based).
  - Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.

## Additional Resources

Talking With Children: Tips for Caregivers, Parents, and Teachers During Infectious Disease Outbreaks, https://store.samhsa.gov/product/Talking-With-Children-Tips-for-Caregivers-Parents-and-Teachers-During-Infectious-Disease-Outbreaks/SMA14-4886

Coping With Stress During Infectious Disease Outbreaks, https://store.samhsa.gov/product/Coping-with-Stress-During-Infectious-Disease-Outbreaks/sma14-4885

Centers for Disease Control and Prevention, Coronavirus Disease 2019 (COVID-19), https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html

Handwashing and Hand Sanitizer Use at Home, at Play, and Out and About, https://www.cdc.gov/handwashing/pdf/hand-sanitizer-factsheet.pdf

*For more information related to schools and physical and mental health, visit www.nasponline.org and www.nasn.org.*

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**Work hard. Be nice. Extend grace. Show mercy. Be humble.**

**Name (First & Last):**_____

**Team:** MAROON OR GOLD

**Homeroom Teacher:**_____

# NTI #16


**Work hard. Be nice. Extend grace. Show mercy. Be humble.**

Class

# Chapter Test — Waves, Sound, and Light

## I. Testing Concepts

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

| Column I | Column II |
|---|---|
| _____ 1. the distance between one point on a wave and the nearest point moving in the same direction in which the wave travels | a. diffraction |
| _____ 2. the number of wavelengths that pass by a point each second | b. electromagnetic wave |
| _____ 3. the bending of a wave around an object | c. frequency |
| _____ 4. the human perception of the frequency of sound | d. pitch |
| _____ 5. a wave that can travel through matter or empty space | e. refraction |
| _____ 6. repeated echoes | f. reverberation |
| _____ 7. causes particles in matter to move back and forth at right angles to the direction in which the wave travels | g. transverse wave |
| _____ 8. the change in direction of a wave when it travels from one material to another | h. wavelength |

**Directions:** *For each of the following, write the letter of the term or phrase that best completes the sentence.*

_____ 9. Waves that can travel only through matter are known as _____ waves.
a. energy b. mechanical c. electromagnetic d. light

_____ 10. _____ is measured in meters.
a. Frequency b. Wave speed c. Wavelength d. Intensity

_____ 11. Frequency is measured in units called _____.
a. decibels b. lambda c. hertz d. wavelength

_____ 12. Night vision goggles use _____ waves to locate people in the dark.
a. infrared b. ultraviolet c. radio d. gamma

_____ 13. The wavelength of a _____ wave is the distance between two adjacent crests or adjacent troughs.
a. rolling b. compressional c. transverse d. seismic

_____ 14. To find the frequency of a compressional wave, you would count the number of _____ that pass by a point each second.
a. crests b. refractions c. diffractions d. rarefactions

Assessment



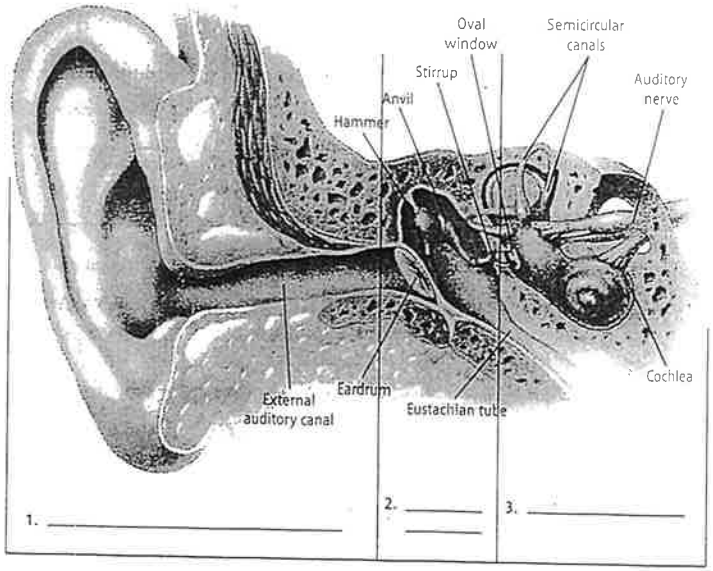
Assessment

# Chapter Test (continued)

## II. Understanding Concepts

**Directions:** *Identify the parts of the human ear below. In the spaces below, explain the function of each part.*

**Skill: Interpret Scientific Illustrations**




4. What is the function of part *1* in the diagram above?

_____

5. What is the function of part *2* in the diagram above?

_____

_____

6. If part *3* failed to function in a person, what would an implant have to do to imitate the function of this part of the ear?

_____

_____

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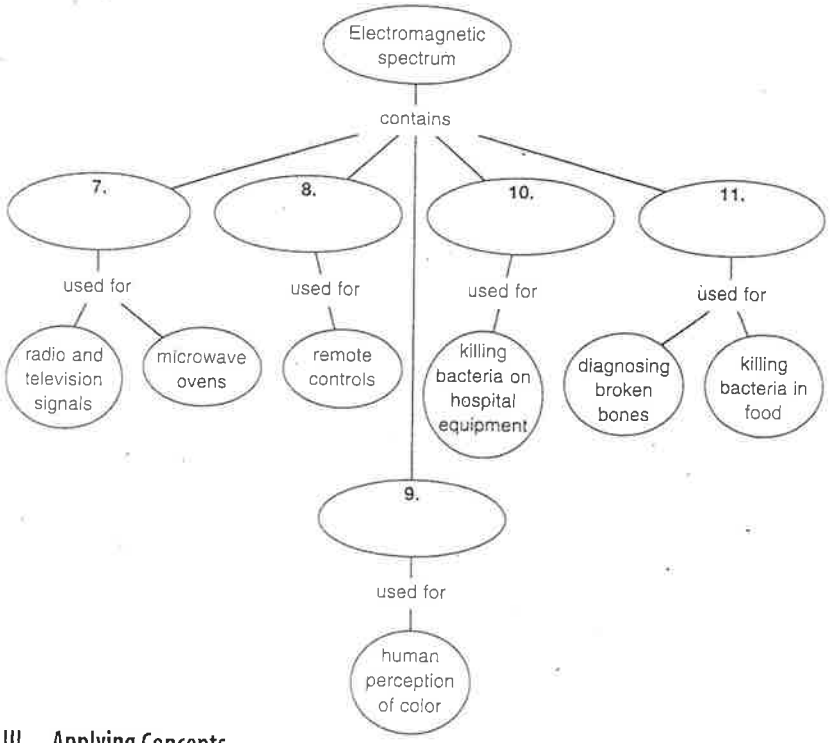
**Skill: Concept Mapping**

**Directions:** *Complete the following concept map.*




## III. Applying Concepts

**Directions:** *Answer the questions below in the space provided.*

1. A sound wave with a frequency of 15,000 Hz travels through iron with a speed of 5,130 m/s. What is the wavelength of this wave?

2. A radio wave has a wavelength of 0.3 m and travels at a speed of 300,000,000 m/s. What is the frequency of this wave?

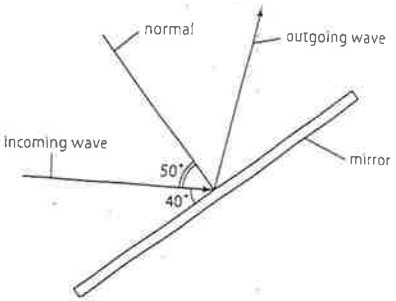




Assessment



3. If a light wave strikes the mirror as shown below, what is the angle of reflection? Explain your answer.




## Writing Skills

**Directions:** *Answer the following questions using complete sentences.*

4. Describe how sound waves travel through matter.

5. Compare and contrast refraction and diffraction.



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# 7th Grade Days 16-20 Social Studies
# NTI Assignments

**Days 16-20**

This week you will continue to explore the ancient America civilizations of the Maya, Inca, and Aztec. The focus for this week will be their cultures, contributions, and lasting impact.

Day 16: Read and analyze the sources for 2.5 Creation Stories. Use the sources to answer the "Synthesize and Write" questions at the bottom of page 475. Please use complete sentences, restatements, and cite sources where necessary. Answer the questions on notebook paper.

Day 17: Read the GeoActivity handout about Machu Picchu, an important landmark for the Inca culture. Use the text to complete questions #1-2 on the worksheet.

Day 18: Today you compare and contrast the Mayan ball game with modern sports. Study the diagram on page 469 and use it to complete the venn diagram- compare and contrast the Mayan ball game with a modern sport (basketball, volleyball, or soccer).

Day 19: Read the article, "Aztec Empire- Writing and Technology" from Ducksters. Use the article to answer the ten multiple choice questions.

Day 20: Using the resources from Days 11-19, answer the constructed response question using RACE (Restate, Answer, Cite, Explain). When you cite, please tell which document your information came from, such as "According to 'Uncovering Maya Murals'...". Your explanation should tell the reader how or why your source corroborates, or backs up, your claim/answer.

**Additional Resources to enhance your learning:**

Watch the following BrainPop videos about each of the ancient civilizations. You can access these 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/aztecciviliza tion/
Video 2- https://www.brainpop.com/socialstudies/ancientcultures/mayacivilization/
Video 3- https://www.brainpop.com/socialstudies/ancientcultures/incacivilization/

Interactive Map of Early Civilizations in the Americas-
http://www.eduplace.com/kids/socsci/ca/books/bkf3/imaps/AC_09_285_amcivilization/AC_09_285_amcivilization.html

Maya-

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

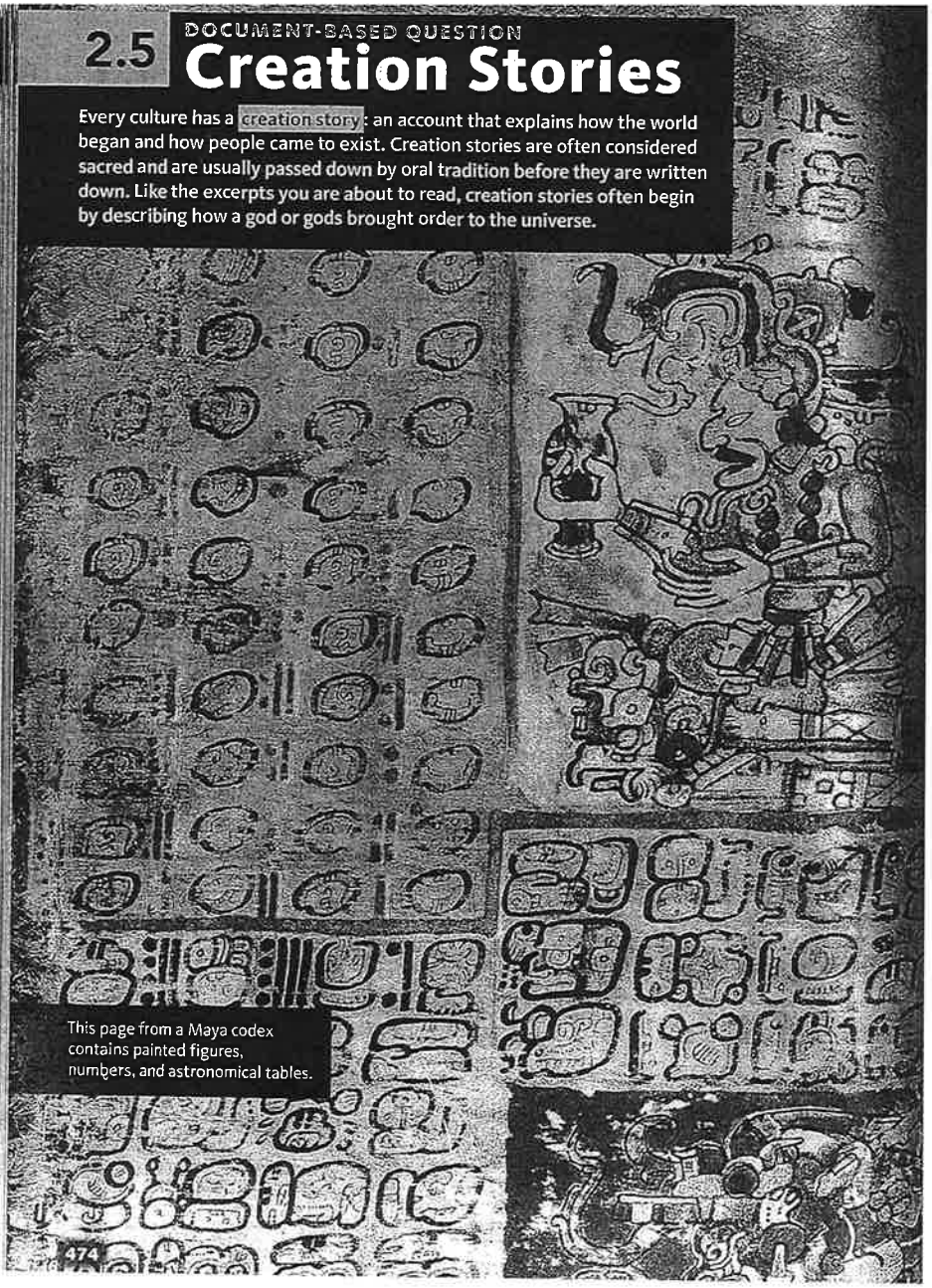
Digital Interactives with facts about the cultures of the ancient American peoples.
https://carlos.emory.edu/htdocs/ODYSSEY/AA/aafront.htm

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

DOCUMENT-BASED QUESTION

# 2.5 Creation Stories

Every culture has a creation story: an account that explains how the world began and how people came to exist. Creation stories are often considered sacred and are usually passed down by oral tradition before they are written down. Like the excerpts you are about to read, creation stories often begin by describing how a god or gods brought order to the universe.



This page from a Maya codex contains painted figures, numbers, and astronomical tables.



## DOCUMENT ONE

**Primary Source: Sacred Text**

**from the *Popol Vuh*, translated by Dennis Tedlock**

Spanish conquerors destroyed much of Maya culture in the 1500s. To preserve their sacred stories for future generations, Maya scribes wrote them down in the *Popol Vuh*. In this passage, two Maya gods form Earth from a world that contains only the sea.

CONSTRUCTED RESPONSE According to this passage, how did the Maya gods form Earth?

"Let it be this way, think about it: this water should be removed, emptied out for the formation of the earth's own plate and platform . . ." they said. And then the earth arose because of them, it was simply their word that brought it forth. For the forming of the earth they said, "Earth." It arose suddenly, just like a cloud, like a mist, now forming, unfolding.

## DOCUMENT TWO

**Primary Source: Sacred Text**

**from the Book of Genesis**

Genesis is the first book of the Hebrew Bible, a collection of sacred Jewish texts. It is also the first book of the Old Testament in the Christian Bible. Followers of both religions believe in a single God. In this passage from Genesis, which means "the origin, or beginning," God creates night and day.

CONSTRUCTED RESPONSE In this excerpt, what was the world like before God brought light to the earth?

When God began to create heaven and earth—the earth being unformed and void [empty]. . .—God said, "Let there be light"; and there was light. God saw that the light was good, and God separated the light from the darkness. God called the light Day, and the darkness He called Night. And there was evening and there was morning, a first day.

## DOCUMENT THREE

**Primary Source: Myth**

**from *Pan Gu Creates Heaven and Earth*, translated by Jan and Yvonne Walls**

Pan Gu is a god in an ancient Chinese creation story that has been told and passed down for more than 2,000 years. According to the story, Pan Gu created heaven and earth. In this passage, Pan Gu bursts from a disordered universe that is shaped like an egg.

CONSTRUCTED RESPONSE In this myth, what elements formed heaven and what elements formed the earth?

Pan Gu, an enormous giant, was being nurtured [cared for] in the dark chaos of that egg. . . . Then one day he woke and stretched himself, shattering the egg-shaped chaos into pieces. The pure lighter elements gradually rose up to become heaven and the impure heavier parts slowly sank down to form the earth.

## SYNTHESIZE & WRITE

1. **REVIEW** Review what you have learned about the creation stories and religious beliefs of early civilizations.
2. **RECALL** On your own paper, write down the main idea expressed in each document.
3. **CONSTRUCT** Write a topic sentence that answers this question: What are some common characteristics of creation stories?
4. **WRITE** Using evidence from the documents, write a paragraph to support your answer in Step 3.

# RELATIVE FREQUENCY

### Vocabulary

**frequency:** the number of times a particular outcome occurs in an experiment

**frequency table:** a table listing each outcome and the number of times it occurs

**relative frequency:** the results of an experiment compared to the possible outcomes; also called the experimental probability

Math Day 16

***Reminder***

Probability is the ratio of the number of favorable outcomes divided by the number of possible outcomes.

Hinan thinks that 6 is her lucky number. She is playing a board game using a number cube, and she thinks she will toss a 6 more often than any other number. To see if this is true, she performs an experiment.

Hinan tosses a number cube, numbered 1 to 6, 20 times. She makes a **frequency table**, listing the number of outcomes for each of the numbers on the cube.

**Experiment 1**

| Number on the cube | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Frequency | 3 | 5 | 2 | 4 | 1 | 5 |

Notice that the sum of the frequencies, or the total number of trials, is 20.

$3 + 5 + 2 + 4 + 1 + 5 = 20$ *trials*

Hinan's results show that the **frequency** of rolling a 6 is 5.

You can find the **relative frequency**, or experimental probability, of tossing a 6 by writing a ratio.

$$\text{Relative frequency} = \frac{\text{Frequency of item}}{\text{Total number of trials}}$$

$$\frac{5 \text{ frequencies}}{20 \text{ trials}} \rightarrow \frac{5}{20} = \frac{1}{4}$$

So, the relative frequency of tossing a 6 is $\frac{1}{4}$.

## Guided Practice

**Experiment 2**

1. Hinan performs the same experiment again. She records the results in the frequency table below.

| Number on the cube | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Frequency | 21 | 12 | 15 | 18 | 20 | 14 |

a. What is the total number of trials? 100

b. What is the frequency of tossing a 6? 14

c. Find the relative frequency by writing a ratio.
$\frac{14}{100} = \frac{7}{50}$

d. Compare the results of Hinan's two experiments.
$P(6 \text{ for } 20 \text{ trials}) = \frac{6}{20} = \frac{1}{4}$
$P(6 \text{ for } 100 \text{ trials}) = \frac{6}{100} = \frac{7}{50}$

e. Which probability was greater? P(6 for 100 trials)

## Exercises

**Ramon conducted an experiment with a spinner. Use his frequency table for Exercises 2 to 6.**

| Letter on spinner | S | M | I | L | E |
|---|---|---|---|---|---|
| Frequency | 22 | 18 | 14 | 24 | 22 |

2. Find the total number of trials. _____
3. Find the relative frequency of spinning an S. _____
4. Find the relative frequency of spinning an M. _____
5. Find the relative frequency of spinning an L. _____
6. Find the relative frequency of landing on a vowel. _____

## Application

7. Place 20 coins in a paper cup. Shake them up and spill them on the table.

a. Record your data in this table.

| Number of heads | |
|---|---|
| Number of tails | |

b. What is the relative frequency of heads? _____

c. What is the relative frequency of tails? _____

d. If one coin is thrown on the desk, what is the probability that it will show tails? $P$ (tails) = _____

# SAMPLING A POPULATION

### Vocabulary

**population:** a large group of people or objects from which a sample is taken

**sample:** a subgroup that represents the larger population

**sampling:** collecting data from a sample of the population

A group of environmentalists study the redfish **population** in a pond using a method called "Capture/Recapture." First, they *capture* a **sample** of 300 redfish, tag them, and put them back into the pond. Several weeks later, they *recapture* a sample of 100 redfish. They see that 15 redfish are tagged.

By **sampling** this population, the environmentalists can estimate the number of redfish in the pond, or the size of the population.

First, find the ratio of tagged fish in the original sample of total fish population ($P$).

$$\frac{300}{P}$$

Next, find the ratio of tagged fish in the second sample to the total number of fish in the second sample.

$$\frac{15}{100}$$

**Reminder**
To solve a proportion, cross multiply and solve for the missing value.

Then, write a proportion and solve.

$$\frac{300}{P} = \frac{15}{100}$$

$$15 \times P = 300 \times 100$$

$$P = 30{,}000 \div 15$$

$$= 2{,}000$$

The environmentalists estimate that there are approximately 2,000 redfish in the pond.

Sampling relies on probability and relative frequency to predict results for larger populations that would be too difficult to count.



## Guided Practice

1. To estimate the size of the alligator population in Louisiana swamps, rangers capture 35 alligators, tag them, and then release them. Two months later, rangers recapture 250 alligators, 6 of which are tagged.

   a. Write a ratio for the number of alligators tagged ~~to~~ the total population. $\frac{35}{P}$

   b. Find the ratio of the tagged alligators to the total number recaptured. $\frac{6}{250} = \frac{3}{125}$

   c. Write a proportion. $\frac{35}{P} = \frac{6}{250}$

   d. Solve the proportion to estimate the alligator population. $P =$ 1458.3 OR 1458 alligators

## Exercises

**Estimate the total population using the Capture/Recapture method.**

2. Wolves in the forest: Capture and tag 40. Recapture 30, with 8 tagged.

   a. Proportion: _____

   b. Estimated population of wolves: _____

## Application

3. Jasmine has a large jar of pennies. She wants to know how many pennies she has, but she doesn't want to count them all. First, she takes 30 pennies from the jar and marks each with a red dot. Next, she places the pennies back in the jar and mixes them. Then, she takes out 30 more pennies, 6 of which have a red dot.

   a. Estimate the total number of pennies in Jasmine's jar. _____

   b. Fill a jar with pennies. Repeat Jasmine's experiment. How many pennies are in your jar? _____

**Ms. Johnson/ Mrs. Fuller**
**Days 16-20**
**Reading**
**NTI Assignments**

**Days 16-20**

You will be reading the nonfiction piece: "The Children Who Escaped the Nazis." This tells the story of a 14-year-old who escaped Nazi-Germany through the Kindertransport, a rescue operaton that helped save the lives of approximately 10,000 Jewish children. Using this text, you will build vocabulary, review important nonfiction elements, write an objective summary, review text evidence and text features, and complete an assessment. Support resources will be attached to assist you in completing these tasks. If your teacher utilizes Google Classroom *(Fuller does not)*, you may also use this to look for additional support resources.

If you have any questions, you can contact your teachers the following ways:

1. Call HCMS 234-7123
2. Email-
miranda.johnson@harrison.kyschools.us or carla.walker@harrison.kyschools.us
3. Text-
Ms. Johnson can be reached via text on M-F between 9am-3pm. (859) 954-8635.
Mrs. Fuller can be reached via text on M-F between 9am-3pm. (859) 588-1288.

We would like to remind you of the importance of completing these assignments. NTI packets are REQUIRED, and will make up a large of your grade for the final grading period. Once again, due to the fact that students may not have access to a book, any reading that is completed in addition to their NTI packets will now be considered **EXTRA CREDIT**, as we understand the difficulty at this time. If your student elects to participate in this extra credit assignment, hard copies of the reading log will be available in the front lobby at HCMS. If your teacher utilizes Google Classroom, you will also be able to access an electronic copy of the reading log. Please do not hesitate to ask for our help! We miss our students, and we hope you are doing well!

Day 16:
Complete the ***Before Reading*** section of the **Read, Think, Explain** page of your packet.

Locate and complete the **Vocabulary/Vocabulary Practice** page in your packet.

10-15 minutes of reading



**Name:** _____ **Date:** _____

# Read, Think, Explain
## Identifying Nonfiction Elements

Use this activity sheet with "The Children Who Escaped the Nazis." See *Scope*'s "Glossary of Nonfiction Terms" and "Glossary of Literary Terms" for definitions of the words that appear in bold.

### Before Reading
**Text Features, Inference**

1. Read the **headline** and **subheading** and study the images on pages 4-5. What do these text features tell you about what the story is going to be about?

2. From the map on page 7, what can you infer about the Nazis?

3. Study the photograph of the children on pages 8-9 and read the caption. Based on these features, what do you think the Kindertransport was?

4. Read the section titles in the article. Based on your preview of the article, write one sentence predicting what the article will be mainly about.

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Name: _____ Date: _____

Go to Scope Online to listen to the words and definitions read aloud.

# Vocabulary:

## "The Children Who Escaped the Nazis"

1. **advocate** **(AD-vuh-kit)** *noun* or **(AD-vuh-kayt)** *verb*; An advocate is a person who supports or argues for the interests of another person, group, or cause. Advocates often speak, write, or take action to defend something they believe in. Dr. Martin Luther King Jr. was a passionate advocate for civil rights.

   As a verb, *advocate* means "to support, recommend, or argue for something or someone—to act as an advocate." The student council might advocate for healthier snack choices in the school's vending machines by writing a letter to the principal.

2. **anti-Semitism** **(an-tee-SEM-i-tiz-uhm)** *noun*; A Semite (SEM-ahyt) is a person who speaks a Semitic (suh-MIT-ik) language. Arabic and Hebrew—which is spoken by many Jewish people—are among the Semitic languages. An anti-Semite is a person who is prejudiced against Jewish people in particular. Anti-Semitism is prejudice, discrimination, or hostility toward Jewish people because of their religion or ethnicity.

3. **denounce** **(dih-NOWNS)** *verb*; To denounce something is to publicly state that it is bad or wrong. If a world leader denounces the use of violence, he or she is expressing strong disapproval of violence.

4. **embittered** **(em-BIT-ehrd)** *adjective*; The adjective *bitter* can refer to a strong and not at all sweet flavor, like that of coffee or dark chocolate. *Bitter* can also refer to an emotion; if you are bitter, you are angry and unhappy because you feel you've been treated unfairly.

   The verb *embitter* means "to cause someone to feel bitter."

   If someone is embittered, he or she has been made to feel angry and resentful by something unpleasant or unfair that happened to him or her.

5. **herculean** **(hur-kyoo-LEE-uhn)** *adjective*; In Roman mythology, Hercules (HUR-kyuh-leez) is a god who possesses exceptional strength. A herculean task is one that requires great strength, courage, or effort. Firefighters might make a herculean effort to put out a rapidly spreading wildfire.

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6. **mitigate** **(MIT-i-gayt)** *verb*; To mitigate something is to make it less severe, harsh, or painful—to ease it. Wearing a helmet mitigates head injury. If you're nervous about doing something, talking to someone who has already done it might mitigate your concerns.

7. **ostracize** **(AHS-truh-sahyz)** *verb*; To ostracize someone is to exclude him or her from a group—in other words, to not allow that person to be part of a group. If the kids at school ostracize Megan, they shut her out—they don't let her join in their conversations or participate in group activities.

8. **oust** **(owst)** *verb*; To oust someone is to force that person out of a position or a place—basically, to kick him or her out. If Tara is ousted from first place in a competition, it means that someone else got a better score than her and is now in first place instead. If your parents are trying to watch a movie and you are making a lot of noise, they might oust you from the room.

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# Vocabulary Practice

## "The Children Who Escaped the Nazis"

**Directions:** Choose the word or phrase that is most similar in meaning to each word in bold.

**1. mitigate**

Ⓐ lighten Ⓑ worsen

**2. oust**

Ⓐ take in Ⓑ push out

**3. denounce**

Ⓐ compliment Ⓑ criticize

**4. embittered**

Ⓐ resentful Ⓑ joyful

**Directions:** For each question below, fill in the circle next to the best answer.

5. Which of the following might cause you to feel embittered?

Ⓐ getting a free ice cream sundae for being the 100th customer of the day at Tastee Cone

Ⓑ realizing that you were tricked into doing something you didn't want to do

6. For which of the following might a doctor advocate?

Ⓐ exercising at least three times a week

Ⓑ eating a diet that consists mostly of candy

**Directions:** Rewrite each sentence using a form of one of the words in the box. There is one word you will not use.

| mitigate | herculean | ostracize | anti-Semitism |
|---|---|---|---|

7. I moved the couch from one side of the living room to the other all by myself—an extremely difficult task.

_____

_____

8. When Adolf Hitler came to power in Germany, he encouraged hatred of Jewish people.

_____

_____

9. Alex's friends apologized for excluding him from their lunch table after their argument.

_____

_____

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NARRATIVE NONFICTION
reads like fiction but it's all true

# The Children Who Escaped the Nazis

## A story of the Holocaust





During a dark time in history, a daring rescue operation saved the lives of thousands of Jewish children. **By the editors of *Scope***

**As You Read** How does the Kindertransport affect Lore's life?

On a chilly April morning in 1939, 14-year-old Lore Sulzbacher sat alone in a huge train station in London. All around her, people were talking. Lore didn't know what they were saying. She didn't speak a word of English.

Lore clutched her only possessions: a suitcase filled with clothes and photographs and her accordion, a musical instrument she loved to play. She wondered what was going to happen to her.

Just a few days earlier, Lore's parents had said they were sending her away. Germany, where Lore lived, had become dangerous for Jewish people like them. Thousands of Jewish parents across Germany, Austria, and Czechoslovakia were sending their kids—some less than a year old—to Britain to live with strangers. They were all part of a desperate plan to save the lives of thousands of children.

As Lore waited in the station that April morning, doubt crept into her mind. She didn't know the family that had volunteered to take her in—not even their names. What sort of people would they be? Would they be kind? Fear washed over her. Why did her parents have to send her away?

### A Storm of Hatred

Germany had not always been dangerous for Jewish people. In Fürth, the city where Lore grew up, Jewish and non-Jewish Germans lived and worked side by side. Still, life in Germany in the 1920s was not easy. Germany had recently suffered a crushing defeat in World War I. The German economy had collapsed, and many people had lost their jobs.

Then, in the early 1930s, a man named Adolf Hitler rose to power. Hitler promised to make Germany strong again. He also gave Germans someone to blame for their problems: Jewish people.

Prejudice against Jewish people, or **anti-Semitism**, had long existed in Europe. Many regarded Jewish people, with their different religion, customs, and rituals, with confusion and mistrust.

Hitler fanned the flames of these centuries-

old suspicions. He gave hateful speeches **denouncing** Jewish people. He called them "subhuman" and said they were corrupting all of Europe. They were the "pests" of the world, he said. These speeches were filled with lies, but many **embittered** Germans listened with eager ears.

In 1933, Hitler became chancellor—the head of the German government. His racist beliefs shaped new laws that made life harder and harder for Jewish people. Over the next five years, Hitler and his Nazi Party stripped German Jews of their rights and **ostracized** them from society.

Jewish people were fired from their jobs. They were forbidden to vote. Friends and neighbors turned cold and cruel; some shouted insults at Jewish people or threw stones at them. Signs appeared in windows of restaurants and shops that said "Jews not wanted." Sometimes Jewish people were beaten in the streets.

By the time Lore was 12, she could no longer swim in public pools or go to the movies or even walk through public parks—just because she was Jewish.

Yet many German Jews believed that the terror would soon end. They had coped with prejudice before. Many felt sure that the country would come to its senses, that Hitler would be **ousted**.

"This lunatic couldn't possibly last much longer," Lore remembers her parents saying.

**A Time of Hatred**
September 16, 1935: Adolf Hitler (standing in car) salutes Nazis as they march in a parade in Nuremberg, not far from where Lore lived in Fürth. On the flags is the swastika, a symbol of the Nazi regime.

But that hope was soon shattered. On the night of November 9, 1938, in cities and towns across Germany, Austria, and parts of Czechoslovakia, mobs organized by the Nazis unleashed terrible violence. Jewish homes, schools, and synagogues were burned to the ground. Jewish stores were looted and destroyed. This night of violent attacks came to be known as *Kristallnacht*, or the Night of Broken Glass.

After that, Lore and her parents accepted the truth: Their country—the only home they'd ever known—was no longer safe for them.

They needed to get out.

## The Children

As news of Kristallnacht spread, people around the world were horrified. Yet few countries were willing to open their doors to those trying to escape Hitler. At the time, millions of people in Europe and the U.S. were struggling to find work and feed their families. Many countries, including the U.S., argued that a wave of newcomers from Germany would compete for scarce jobs.


In 1942, the main Axis countries were Germany, Italy, and Japan. The main Allied countries were Great Britain, the U.S., the Soviet Union, and China.

But in Britain, a group of Jewish and non-Jewish **advocates** for refugees was determined to do something. They couldn't get whole families out, but maybe they could save the children. They appealed to the British government to take action.

"Here is a chance of taking the young generation of a great people. Here is a chance of **mitigating** to some extent the terrible suffering of their parents and their friends," British Home Secretary Samuel Hoare said in a debate over what should be done.

On November 22, the British government voted in favor of helping child refugees. In the coming days, a rescue operation took shape. This operation would be called the Kindertransport. (*Kinder* means children in German.)

It was decided that Jewish children under age 17 could receive special travel documents to come to Britain, where they would be placed in foster homes, boarding houses, or hostels. Fifty pounds—about $1,500 today—had to be set aside for each child to pay for their eventual return to Germany after the crisis ended. (The money often came from sponsors or the children's parents.)

On November 25, British radio aired a call for volunteers. Soon after, more than 500 people had offered their homes to young refugees. Meanwhile, representatives went to Germany and Austria to set up systems for organizing and transporting the children. (In March 1939, Hitler's army invaded Czechoslovakia. Transports for Jewish children were quickly organized there as well.)

Parents in Nazi-occupied countries now faced a hard decision: Send their children to live with strangers to keep them safe from Nazi terror—or keep their families together and try to survive the violence.

## Saying Goodbye

On December 1, 1938, the first train of the Kindertransport left Germany for England. By early 1939, nearly 300 children were arriving in England every week.

On April 14, 1939, Lore's mom and dad told her that they had arranged a place for her on the Kindertransport. Lore had four days to get ready to leave.

Lore was allowed one suitcase, one piece of hand luggage, and 10 marks—about $70 today. The Nazis didn't want anything of value to leave Germany.

At the train station, Lore's parents said they would see her again. As the train pulled away, Lore stared out the window until her mom and dad disappeared from sight.

## A New Life

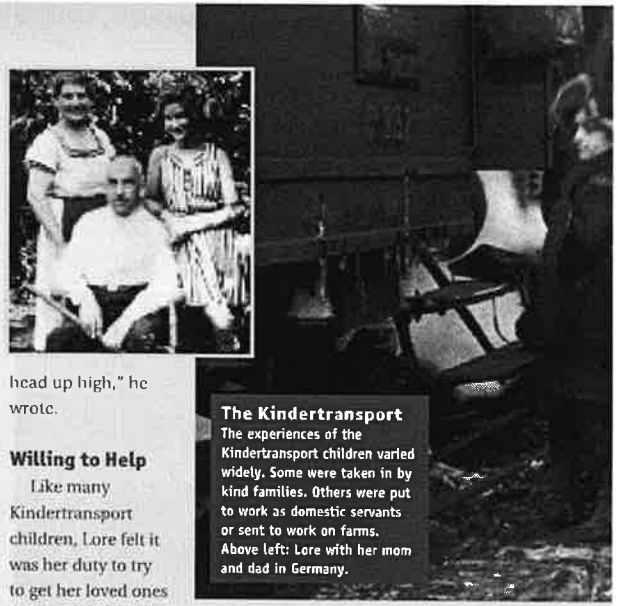
Most children arrived in England with little idea of what lay in store for them. Often they did not even know the names of their foster families. They waited at train stations to be picked up, wearing numbers around their necks so they could be identified. Children who did not have foster families were sent to boarding houses or hostels.

When Lore arrived in London, a couple approached her. They introduced themselves as Mr. and Mrs. Schreiber. Lore didn't understand much of what they said, but she went with them to their home in the city of Lincoln.

The Schreibers and the people of Lincoln did their best to help Lore. The Schreibers gave her a bed to sleep in and food to eat, and they sent her to school to learn English. Their 17-year-old son treated Lore as a sister. At school, kids invited Lore to play cricket, one of England's most popular sports. Lore didn't know the rules, but the kids made sure she knew when to run.

All the same, Lore was homesick. She wasn't used to English food and customs. School was hard; her classmates didn't speak German, and she struggled to understand the lessons.

Above all, Lore worried about her parents. They wrote to her often. In one letter, her father told her to be strong. "Keep your head up high," he wrote.



**The Kindertransport**
The experiences of the Kindertransport children varied widely. Some were taken in by kind families. Others were put to work as domestic servants or sent to work on farms. Above left: Lore with her mom and dad in Germany.

## Willing to Help

Like many Kindertransport children, Lore felt it was her duty to try to get her loved ones out of Germany. She found guardians in England for two friends and a cousin. But getting her mom and dad out was harder. She knew the rule: If she could find jobs for her parents in England, they would be allowed to come.

Lore walked around Lincoln looking for the biggest homes—the ones sure to be owned by rich people. She knocked on doors and put her broken English to work.

*Do you need a gardener? A cook?* she would ask.

Finally, she found a family willing to help. They said they would hire Lore's parents and sent an application to the British government. Lore felt sure she would see her parents soon.

Then, on September 1, 1939, dreadful news came: Germany had invaded Poland. Britain was joining forces with other countries in Europe to fight Hitler.

World War II had begun.

## Pushing Forward

The start of World War II put an end to the Kindertransport in Germany. For Lore and the other children, the dream of seeing their families was crushed. Most communication stopped, though Lore did get bits of news about her parents through a relative in Switzerland.

Through the hard years of the war, Lore tried to make the best of life in England. She learned to sew while working in the dress shops the Schreibers owned. She also took art classes at night. After all, her parents had wanted her to live and thrive.

But the grim realities of war were ever-present. German warplanes rained bombs on England. German tanks rolled through Western Europe—Belgium, the Netherlands, France. It seemed that Hitler could not be stopped.

When Lore turned 18 in 1943, she joined the British army. "I felt I was saying thank you to England for saving my life," she would later say.

Lore was posted to London and given a job as a driver. She made many new friends. For the first time, she felt like she truly belonged. "The people on my left, the people on my right," she recalled, "we were all the same."

## The End of the War

In 1941, the U.S. joined the fight against Germany. The war raged on for four more years. Finally, in 1945, Germany surrendered. The war was over.

After the war, hundreds of Kindertransport children found one or both of their parents. But most never saw their parents again. Few Jewish people in Nazi-occupied countries survived.

Tragically, Lore's parents were killed in a Nazi death camp called Auschwitz. They were among the 6 million Jewish people the Nazis murdered. This terrible period of history would later be known as the Holocaust.

Decades later, Lore sat down to tell her story to an interviewer. She still dreamed about her parents, she said. Sometimes in her dreams, her father carried her piggyback through a park in Fürth.

Despite all that she lost, Lore seemed to look back on her life with a sense of gratitude. After the war, she had a son and three grandsons. Her marriage was as happy as her parents' had been.

Today, the Kindertransport is remembered as a remarkable feat. The lives of some 10,000 children were saved thanks to the **herculean** efforts of many people from many walks of life—politicians, religious leaders, advocates, and the thousands of families who opened their homes.

"I think I'm very lucky to be here," Lore said. "I've had a lovely life."●

**Writing Contest**

**In an essay, a slideshow, or a video, explain the challenges faced by the children of the Kindertransport. Support your ideas with text evidence. Send your entry to Kindertransport Contest. Five winners will get *The War I Finally Won* by Kimberly Brubaker Bradley.**

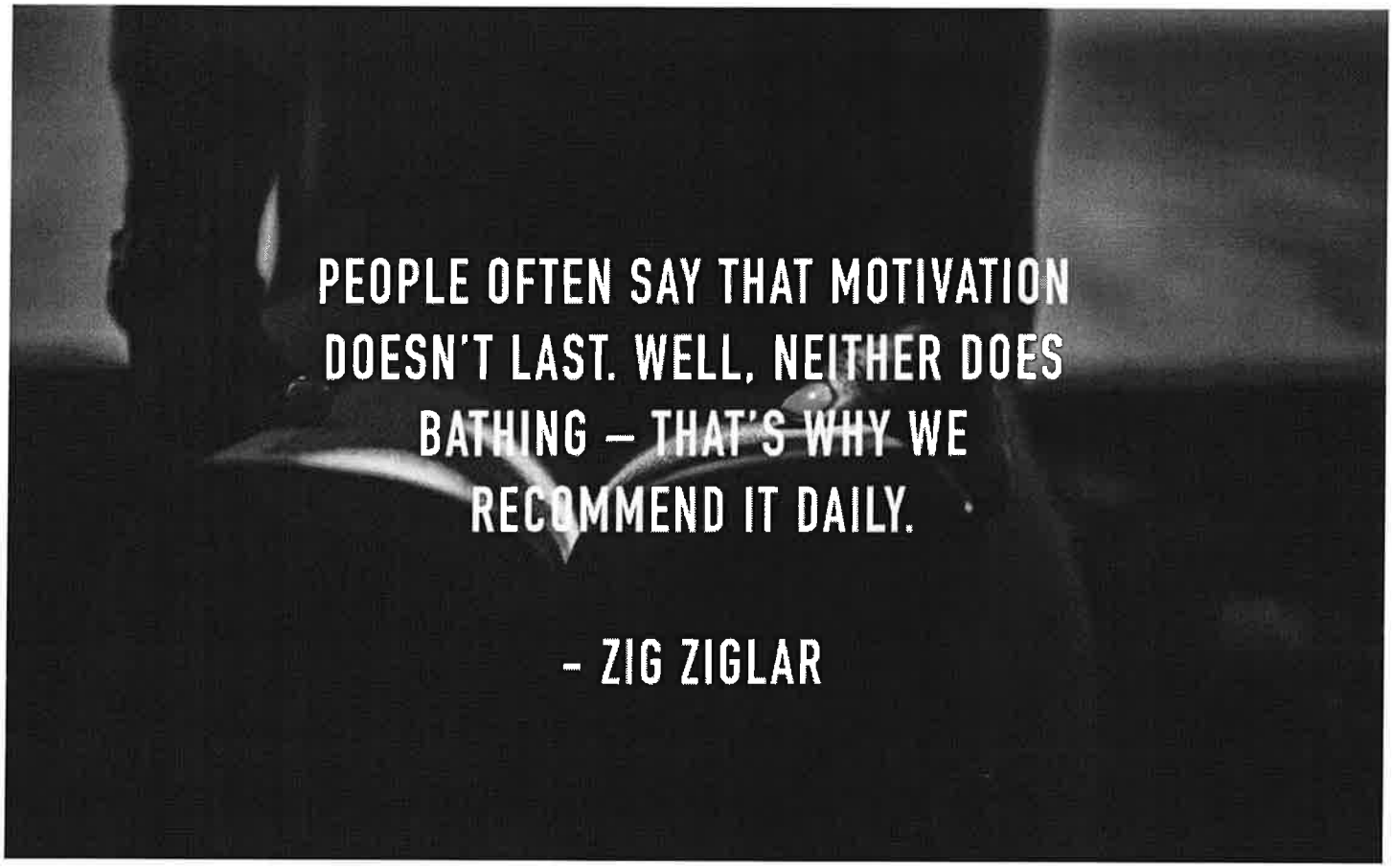
Get this activity online.

**Name (First & Last):**_____

**Team:** MAROON OR GOLD

**Homeroom Teacher:**_____

# NTI #17




**Work hard. Be nice. Extend grace. Show mercy. Be humble.**

Name _____ Class _____ Date _____

SECTION 2 HISTORY
# GeoActivity

*Use with* South America Geography & History, Section 2.1, *in your textbook.*

*Go to* Interactive Whiteboard GeoActivities *at* **myNGconnect.com** *to complete this activity online.*

NATIONAL GEOGRAPHIC School Publishing

2.1 THE INCA

## Create a Sketch Map of Machu Picchu

Machu Picchu is situated high in the Andes Mountains on a narrow piece of land surrounded by high peaks. Sketch a map of Machu Picchu based on the passage. Then answer the question.

### Machu Picchu: A Royal Inca Retreat

Machu Picchu is located on a long, narrow, and irregularly shaped site that resembles a mirror image of the state of New Jersey. A wall running southwest to northeast divides the site into two uneven halves. The smaller half, to the southeast, contains agricultural terraces. It is known as the Cultivation Sector. The larger half, to the northwest, is the Urban Sector, where many ruins stand. The main gate into the Urban Sector is at the west end of the dividing wall.

At the center of the Urban Sector is the Main Plaza, a rectangular plaza running north to south. Beyond the Main Plaza to the north looms a mountain peak called Huayna Picchu, or "Young Peak." East of the Main Plaza is a district of houses and workplaces called the Industrial Zone. South of the Main Plaza the Inca built a complex of royal buildings, including the Royal Palace and the Royal Tomb. West of the Main Plaza is an area of temple ruins. West of the temple ruins, and east of the Industrial Zone, are more agricultural terraces.

1. **Sketch Maps** Reread the passage and underline key words and phrases that describe the site's layout. Then draw your map in the space at right. Label places on the map. Be sure to include a compass rose.
2. **Make Inferences** What do the ruins of Machu Picchu suggest about Inca society?

_____

_____

**MACHU PICCHU**

# INDEPENDENT EVENTS

**Vocabulary**

**independent events:** two events with outcomes that do not depend on each other

Andre rolls a six-sided cube, numbered 1 to 6 , and tosses a coin. He wonders about the probability of getting a 4 on the cube and heads on the coin.

Rolling a cube has no effect on tossing a coin. The two are **independent events**.

To find the probability, he makes a table of all the possible outcomes.

| | | | | | |
|---|---|---|---|---|---|
| H1 | H2 | H3 | H4 | H5 | H6 |
| T1 | T2 | T3 | T4 | T5 | T6 |

Andre looks at the table and finds that the probability of getting a 4 and heads is $\frac{1}{12}$.

$$P(4 \text{ and } H) = \frac{1}{12}$$

If two events A and B are independent, the probability that both events occur is the probability of A multiplied by the probability of B.

$$P(\text{A and B}) = P(\text{A}) \times P(\text{B})$$

The probability of getting heads on a coin toss is $\frac{1}{2}$. The probability of rolling a 4 is $\frac{1}{6}$.

Andre uses the formula above because he knows he has independent events.

$$P(4 \text{ and } H) = \frac{1}{6} \times \frac{1}{2} = \frac{1}{12}$$

The results are the same.



## Guided Practice

1. What is the probability that Andre will get tails and an odd number?

   a. Use the table to list the favorable outcomes.

   T1, T3, T5

   b. Total number of possible outcomes = 3

   c. $P$(T and odd) = $\frac{3}{12}$

   d. $P$(T) = $\frac{1}{2}$ and $P$(odd) = $\frac{3}{6}$

   e. Using the formula, $P$(T and odd) = $\frac{1}{2} \times \frac{3}{6} = \frac{3}{12}$

2. A booth at the school carnival has two game wheels. One has equal areas of red, blue, yellow, and green. The other has equal areas numbered 1, 2, 3, and 4. The most valuable prize requires spins of blue on one wheel and 1 on the other. What is the probability of spinning blue and 1?

   a. To find the probability, complete the table for all possible outcomes.

| | | | |
|---|---|---|---|
| R1 | B 1 | Y 1 | G 1 |
| R2 | B 2 | Y 2 | G 2 |
| R3 | B 3 | Y 3 | G 3 |
| R4 | B 4 | Y 4 | G 4 |

   b. $P$(blue and 1) = $\frac{1}{16}$

   c. $P$(blue) = $\frac{1}{4}$ and $P$(1) = $\frac{1}{4}$

   d. Using the formula, $P$(blue and 1) = $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$

## Exercises

3. Make a table of all the possible outcomes for tossing a six-sided cube, numbered 1 to 6, and spinning a four-color wheel containing white, black, purple, and orange sectors of equal area. Find the probability for each event listed below.

   a. $P$(even number and purple) _____

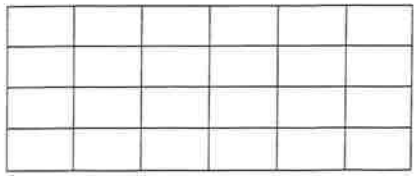
   b. $P$(black and number less than 5) _____

   c. $P$(white and a positive number) _____

   d. $P$(3 and orange) _____

   e. $P$(a color and 5) _____

   f. $P$(purple and a number divisible by 3) _____



**Use the formula $P(A \text{ and } B) = P(A) \times P(B)$ to find the probability for each event.**

4. Tossing coins.

   a. Tossing 3 coins and getting 3 heads _____

   b. Tossing 2 coins and getting 2 tails _____

5. Rolling double 6's on two number cubes _____

## Application

6. Nabil has two number cubes, with four sides numbered 1, 2, 3, and 4.

   a. What is the probability that he will roll two even numbers when throwing the two dice? _____

   b. What is the probability that he will roll two numbers, each less than 4? _____



7. Emilita works at a day care center after school. She is planning a card game to teach the children to read their numbers and the picture cards.

   a. Get a deck of playing cards, or make one with cut paper and red and black markers.

   b. Lay out the cards as Emilita would for the children.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clubs | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Diamonds | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Hearts | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Spades | x | x | x | x | x | x | x | x | x | x | x | x | x |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | J | Q | K | A |

   c. A child draws a card at random. What is the probability that the card is a club? _____

   d. The child puts the card back. What is the probability that the card is a king? _____

   e. The child puts the card back. What is the probability that the card is the king of clubs? _____

# 7th Grade Science Resources for NTI

## *7th Grade Science Students,*

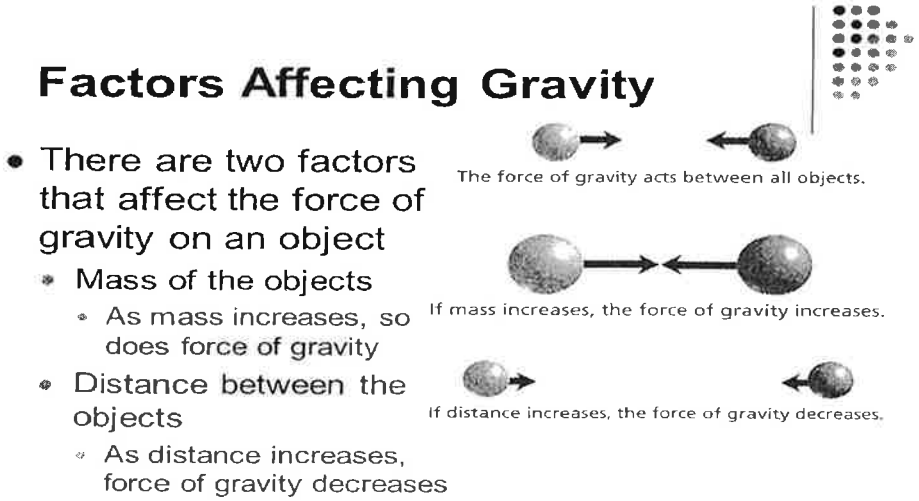
We have made you a "playlist" of videos you can use as a resource for our new Unit of Gravity. Mrs. Jones and Ms. Chapman will be posting their own video to further explain Gravity. This unit is about gravitation attraction between objects and how mass/distance factors into gravity. We look forward to this unit, and we hope this "playlist" will help your understanding of Gravity. 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.

- "Defining Gravity: Crash Course Kids #4.1
  - https://www.youtube.com/watch?v=ljRlB6TuMOU
- " The Gravity of the Situation: Crash Course Astronomy #7
  - https://www.youtube.com/watch?v=TRAbZxQHlVw
- Why the solar system can exist
  - https://www.youtube.com/watch?v=uhS8K4gFu4s
- "How far would you have to go to escape gravity? - Rene Laufer
  - https://www.youtube.com/watch?v=YIxKh4oCKhw

## DIAGRAM:



## Reflect

Imagine you had two "superpowers." Both powers allow you to move things without touching them. You can even move things located on the other side of a wall!

One power is the ability to pull anything toward you without touching it. This **force** acts on objects near or far, but it pulls harder on close objects. The other power allows you to pull *and* push objects. However, this force acts only on things made of certain materials, like iron.

**force:** a push or a pull

Do these powers sound familiar? If so, it's because you have seen both forces in action. You can feel one of them right now. Do you know what these forces are?

### What is Gravity?

You are probably sitting in a chair as you read this. What keeps you there? Why don't you float away into space?

The answer is the force of gravity. This is one of the "superpowers" mentioned above. **Gravity** is a force that pulls every object toward every other object. That means we all have our own gravity! However, the force of attraction is very weak unless one of the objects is very large. Because Earth is very large, you can feel it pulling on you. This pull is called your **weight**. You can't feel the pull between yourself and smaller things, like other people, because the force is too weak. Gravity is always a pull, never a push.

Why don't people float away into space? The force of gravity pulls them toward Earth's center.

Instead of saying Earth is large, we should say it has a lot of mass. **Mass** is what makes up all things in the universe. The more mass an object has, the harder it is to move. Gravity is the attraction between any two masses. The force of gravity is stronger when the masses are greater. If you move farther away, the force gets weaker.

Scientists understand enough about gravity to **predict** how it will affect different objects. But, why do you think the force exists? Scientists have different theories about this, and they have not quite agreed on the answer. So gravity is both familiar and strange—but, altogether an amazing force.

**predict:** tell me what will happen in the future based on how things are in the present





## Reflect

### Career Corner: Designing Bridges

Picture a long bridge with many cars on it. Imagine how much the cars and the bridge must weigh. We know that weight is the force of gravity pulling on mass. The cars and the bridge have a lot of mass. How do we know the bridge is strong enough to support all that weight?

That is the job of an engineer. There are many kinds of engineers. Some design and build bridges. They must identify all the forces acting on a bridge. They need to choose materials strong enough to resist those forces. They must put together the materials in the best way, otherwise the bridge may collapse.

Gravity pulls down hard on this bridge.

## What Do You Think?

If you live by the ocean, you know its level changes every day. The ocean goes up and down because it is sloshing back and forth on Earth like water in a bathtub. This means some force must be pulling on the water in the ocean to make it move. What is that force? Where does the force come from? (Remember that Earth has a lot of mass. Which objects in space near Earth have lots of mass?)

Low tide left some boats on land.

## Look Out!

Many people speak of weight and mass as if they are the same thing, but they are not. **Mass** is the amount of matter something has. **Weight** measures the gravitational pull of an object's mass.

What if you were standing on a planet that had more mass than Earth? Would you have the same mass? Would you have the same weight? You would have the same mass because you would be made of the same stuff. You would weigh more because the larger the planet, the larger its gravitational pull is. For example, if matter weighs 100 pounds on Earth, the same piece of matter would weigh 236 pounds on Jupiter.

When astronauts go to the Moon, their mass doesn't change. However, they weigh much less. Think about when astronauts are on the Moon—they can jump extremely high! That is because they don't weigh as much on the Moon. The Moon's gravity pulls on them with less force.

## Try Now

We know that your mass, or the amount of matter in your body, does not change if your were to travel to other planets. Your weight, however, is affected by the pull of gravity. Small objects have less gravity, and large objects have more gravity.

Calculate the weight of a 50-pound dog travelling the solar system.

| Planet | Mass (lb) | × Gravity = | Weight |
|---|---|---|---|
| Mercury | | .38 | |
| Venus | | .91 | |
| Earth | 50 | 1 | 50 |
| Mars | | .38 | |
| Jupiter | | 2.14 | |
| Saturn | | .91 | |
| Uranus | | .86 | |
| Neptune | | 1.1 | |



## Connecting With Your Child

**Gravitational Forces at Home**

This activity will help you explore the forces of gravity with your child.

The only materials you will need are a ball and a few pieces of string.

1. Tie a piece of string around a ball.
2. Find a large open area where you can swing the ball in a circle around your head.
3. Slow your hand down and observe what happens to the ball.
4. Spin the ball again and then let go of the string. (Be sure no one is standing nearby).
5. If there's a nearby playground, look for a tether ball and pole. As you play, think about the forces at work.

Here are some questions to discuss with your child:

1. What force does the pull of the string represent?
2. How is this like the motion of the planets around the Sun?
3. Our Moon is kept in its orbit by the pull of Earth's gravity. What would happen to the Moon if there were no gravity from Earth?
4. How is this like riding on the swings at an amusement park?

**Reading**
**NTI Assignments**

Day 17:
Read **"The Children Who Escaped the Nazis."**

Locate and complete the ***During Reading*** and ***After Reading*** pages of your packet. **DO NOT WRITE THE OBJECTIVE SUMMARY ON THIS DAY.**

10-15 minutes of reading



## During Reading
### Mood, Text Structure, Inference, Tone

5. What is the **mood** of the first two paragraphs of the introduction? How do the authors create this mood?

6. **A.** Check ( ✔ ) the statement that BEST describes the **text structure** (the way the authors organize information) in the section "The Children."

| | | |
|---|---|---|
| The authors list and describe the people who organized the Kindertransport. | The authors give a chronological account of how the Kindertransport was started. | The authors compare rescue efforts in Europe with rescue efforts in other places. |

**B.** Explain how you know.

7. Reread the second-to-last paragraph of the section "The End of the War." What tone do the authors use in this paragraph? How do you know?

8. At the end of the section "The End of the War," Lore says: "I think I'm very lucky to be here. I've had a lovely life." From this statement, what can you **infer** about Lore?

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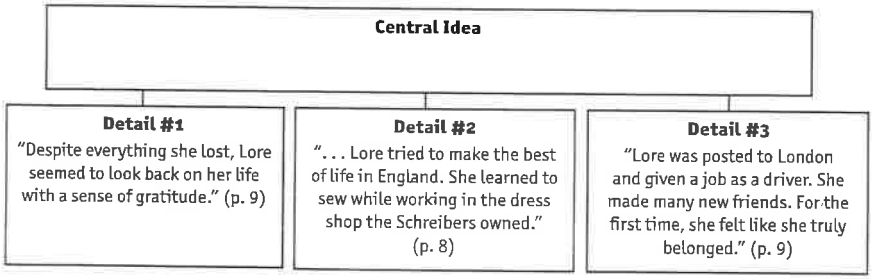
# After Reading
## Central Idea/Details and Objective Summary

**9.** Below are three **supporting details** for a **central idea** of "The Children Who Escaped the Nazis." In the space provided, write a central idea that these details support.




**10.** Write an **objective summary** of "The Children Who Escaped the Nazis." (Hint: Think about what you would say to a friend who asks, "What is this article about?")

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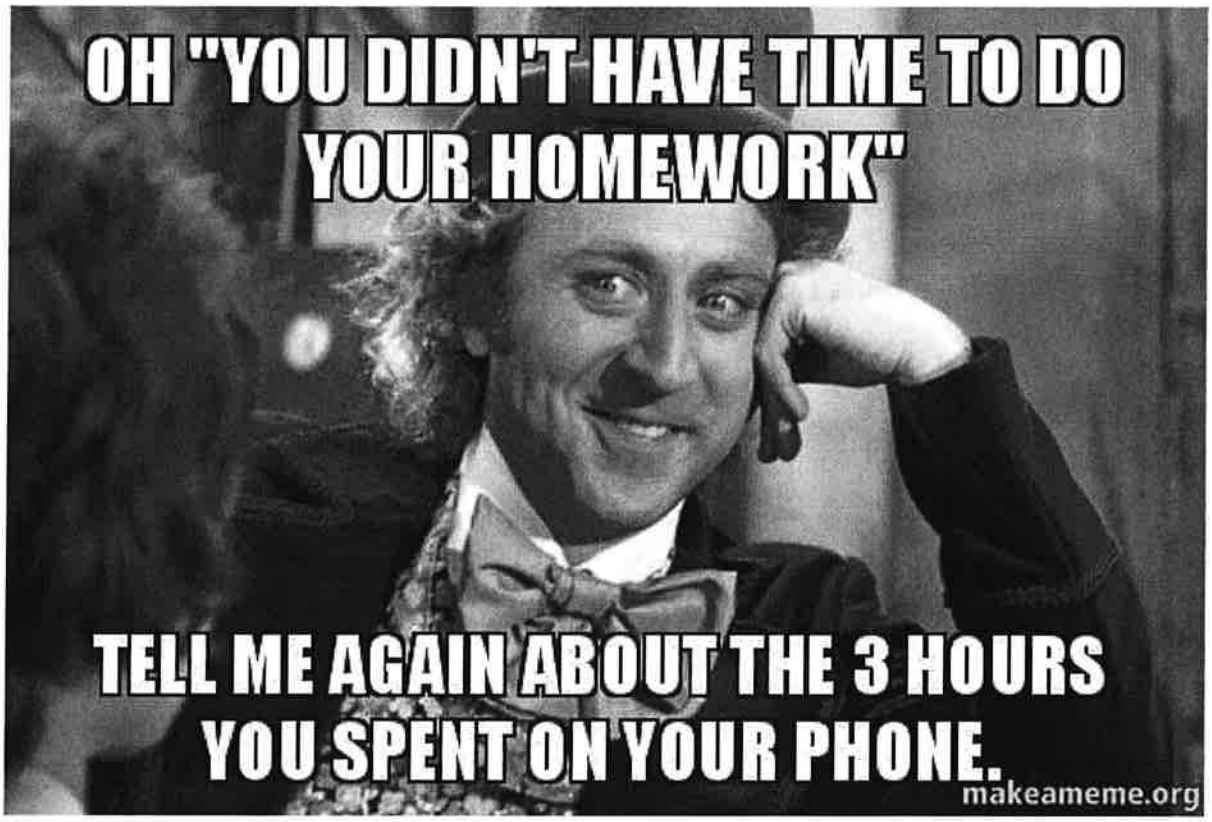
**Name (First & Last):**_____

**Team:** MAROON OR GOLD

**Homeroom Teacher:**_____

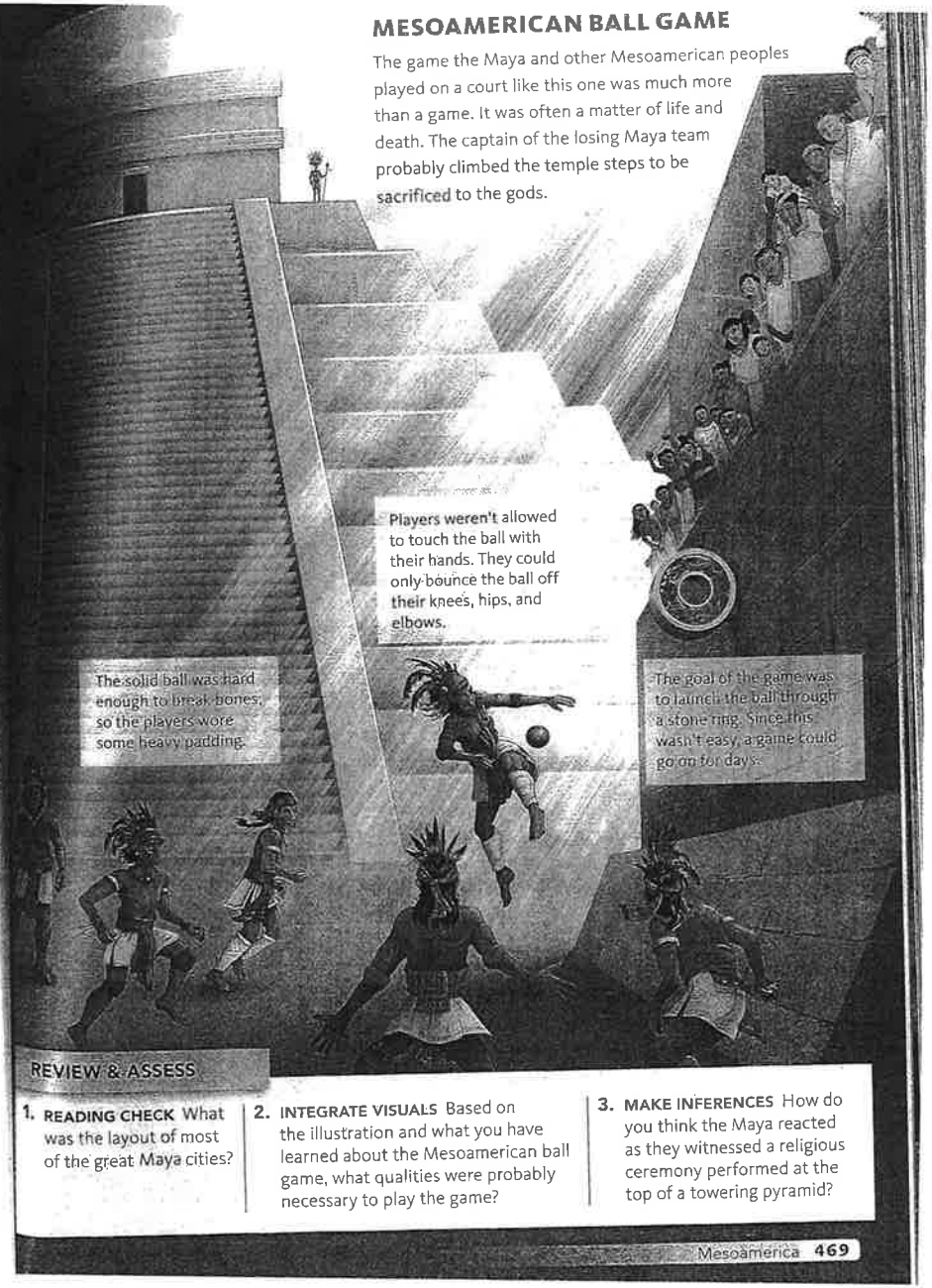
# NTI #18




**Work hard. Be nice. Extend grace. Show mercy. Be humble.**

## MESOAMERICAN BALL GAME

The game the Maya and other Mesoamerican peoples played on a court like this one was much more than a game. It was often a matter of life and death. The captain of the losing Maya team probably climbed the temple steps to be sacrificed to the gods.



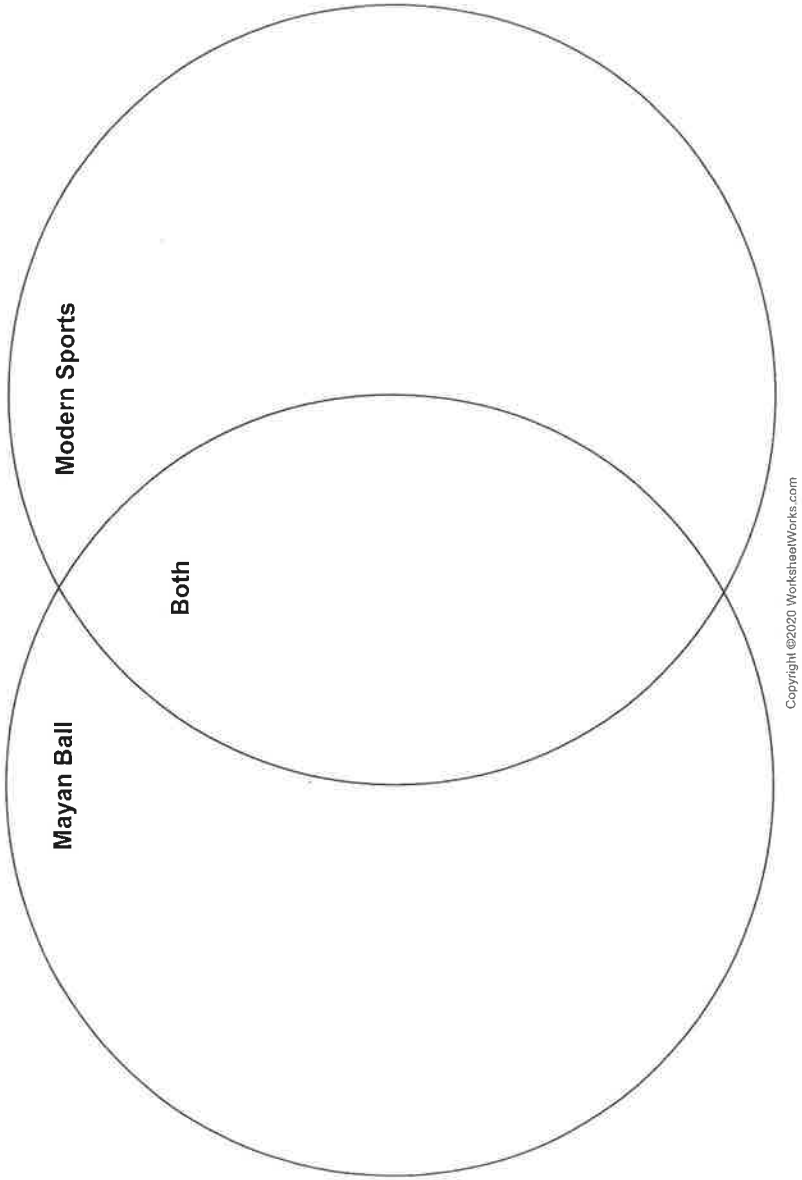

### REVIEW & ASSESS

1. **READING CHECK** What was the layout of most of the great Maya cities?
2. **INTEGRATE VISUALS** Based on the illustration and what you have learned about the Mesoamerican ball game, what qualities were probably necessary to play the game?
3. **MAKE INFERENCES** How do you think the Maya reacted as they witnessed a religious ceremony performed at the top of a towering pyramid?



# Ancient vs. Modern Sports

Name: _____ Date: _____

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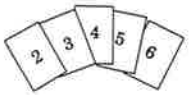
# DEPENDENT EVENTS

### Vocabulary

**dependent events:** a set of events in which the outcome of the first event affects the outcome of the next event

Math 18 Day

Jasmine and her friends are planning a card trick. She shuffles the cards at the right and puts them face down on the table.




Jasmine asks, "If I pick a card, what is the probability of picking a 3?" Her friends answer quickly, "One in five," or $\frac{1}{5}$.

$$P(3) = \frac{1}{5}$$

"Okay," Jasmine says. "What if I don't replace the first card? What is the probability of picking a 2 as the second card?"

Jasmine points out that because the first card has been chosen, they will have to find the probability of picking the 2 from the four remaining cards. She shows this outcome as "one in four," or $\frac{1}{4}$.

$$P(2) = \frac{1}{4}$$

Seeing that her friends do not understand, Jasmine explains that the outcome of picking the first card affects the outcome of picking the second card. The probability of drawing the 2 as the second card is dependent upon drawing the 3 as the first card. For that reason, these are called **dependent events**.

Jasmine shows her friends how to figure the probability of the two dependent events.

$$P(3, \text{ then } 2) = \frac{1}{5} \times \frac{1}{4} = \frac{1}{20}$$

So, the probability of picking a 3 as the first card and a 2 as the second card is $\frac{1}{20}$.

## Guided Practice

1. Martin has ten pieces of paper with one of the digits 0 to 9 on each. He picks three digits, one at a time without looking, to make a three-digit code. What is the probability that Martin will pick the code 852?

   a. The probability of an 8 on the first pick is $\frac{1}{10}$.

   b. How many digits remain in the sample space? 9

   c. The probability of a 5 on the second pick is $\frac{1}{9}$.

   d. How many digits remain in the sample space? 8

   e. The probability of a 2 on the third pick is $\frac{1}{8}$.

   f. Multiply the three probabilities.

   $\frac{1}{10} \times \frac{1}{9} \times \frac{1}{8} = \frac{1}{720}$

   g. $P(852) = \frac{1}{720}$

2. If the following cards are face down and Mary picks two cards, find the probability of picking two aces (ace, ace).

   ace, queen, 10, 8, ace, ace, queen, 10

   a. What is the probability of picking an ace as the first card?

   $P(\text{ace}) = \frac{3}{8}$

   b. Once the first card is set aside, what is the probability of picking an ace as the second card?

   $P(\text{ace}) = \frac{2}{7}$

   c. $P(\text{ace, then ace}) = \frac{3}{8} \cdot \frac{2}{7} \cdot \frac{6}{56} = \frac{3}{28}$

## Exercises

**Walden has a bag with 5 yellow counters, 3 blue counters, and 2 green counters. He picks one counter at a time and does not replace it. Find the probability of each of the following.**

3. Picking 2 yellow counters.

   $P(\text{Y, then Y}) =$ _____

4. Picking a yellow counter, then a blue counter.

   $P(\text{Y, then B}) =$ _____

5. Picking a green counter, then a blue counter.

   $P(\text{G, then B}) =$ _____

6. Picking a yellow counter, then a green counter, then a blue counter.

$P$(Y, then G, then B) = _____

**Suppose Walden adds 6 red counters and 4 white counters to the bag. Find the probability of each of the following. Use your calculator, if necessary.**

7. Picking 3 counters: red, then blue, then red.

$P$(R, then B, then R) = _____

8. Picking 2 green counters, then a white counter.

$P$(G, then G, then W) = _____

9. Picking 3 counters: white, then red, then yellow.

$P$(W, then R, then Y) = _____

## Application

10. Tom and his friends Nick, Steve, Juan, and Aiden are waiting to get into a movie. Just as they get to the ticket window, the manager puts up a sign saying there are only two seats left, one in the first row and one next to the exit sign. All five boys put their school identification cards into Tom's hat and shake it up. Juan pulls out two names, the first for the first-row seat and the second for the exit sign seat.

a. What is the probability that Tom gets the first-row seat and Aiden gets the exit-sign seat? _____

b. Make a list of all the possible outcomes.

Start your list this way:

Tom, Nick

Tom, Steve

Tom, Juan

Tom, Aiden



c. How does your answer for $P$(Tom, then Aiden) compare with your list of outcomes?

_____

d. Suppose Steve decides to go home. So the other four put their identification cards into the hat to decide who will see the movie. What is the probability that Juan and Aiden get to see the movie?

_____

11. Make a set of cards with the following letters.

A, B, C, D, E, F, G, H, I, J

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|

Find the probability of each of the following picks if the first card picked is set aside.

a. What is $P$(A, then B)? $P$ = _____

b. What is $P$(A, then vowel)? $P$ = _____

c. What is $P$(vowel, then vowel)? $P$ = _____

d. What is $P$(vowel, vowel, consonant, vowel). Use your calculator.

$P$ = _____

12. Describe the difference between an independent and a dependent event.