Name:_____

Team: Maroon or GOLD

# 7th Grade NTI #31-35

This selection of NTI #31-35 is designed for our students to creatively review content from the entire school year. Students have the option of this paper packet or technology of google classroom to create a youtube video of review. Please see the codes below for the online Youtube Video assignments.

## MAROON TEAM-ADD GOOGLE CLASSROOM CODE: 6vcmoxo
## GOLD TEAM- ADD GOOGLE CLASSROOM CODE: txkctap

## 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.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

# Science NTI #31-35 Illustration Review
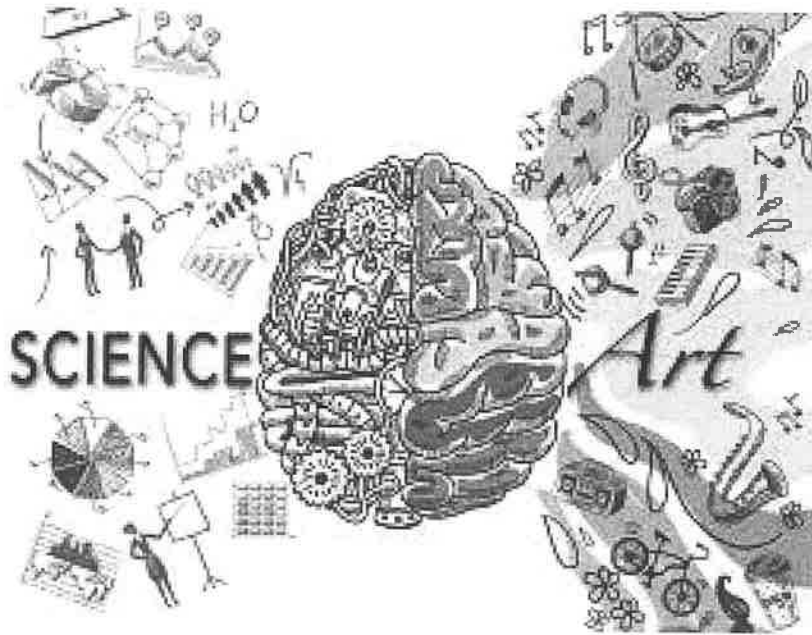
As a part of our NTI #31-35, we would like to do an illustration review. On the next few pages, we are going to ask you to complete illustrations over science topics we have discussed in class. Please remember, if you don't want to do a paper packet, you can do the technology option for NTI #31-35 Youtube videos. The information for the Youtube Videos will be found on your Team's google classroom page.

**MAROON TEAM-ADD GOOGLE CLASSROOM CODE: 6vcmoxo**
**GOLD TEAM- ADD GOOGLE CLASSROOM CODE: txkctap**

As you complete the illustrations, please feel free to use your ISN, youtube, or any other resources. Please also feel free to use color to create your illustrations.

# Cell Illustration

Directions: Please create a PLANT CELL that includes the following organelles: mitocondria, vacuole, nucleus, cell wall, cell membrane, ribosomes, golgi bodies, endoplasmic reticulum, cytoplasm. Make sure all organelles are labeled.

**Diagram of Plant Cell**

# Roller Coaster Illustration

Directions: You must label the roller coasters below on the amount of energy each position of the roller coaster. REmember think of energy as 100%. Label the percentage based on BOTH kinetic and potential energy.
USE THIS WEBSITE if you need help:
https://ket.pbslearningmedia.org/resource/hew06.sci.phys.maf.rollercoaster/energy-in-a-roller-coaster-ride/
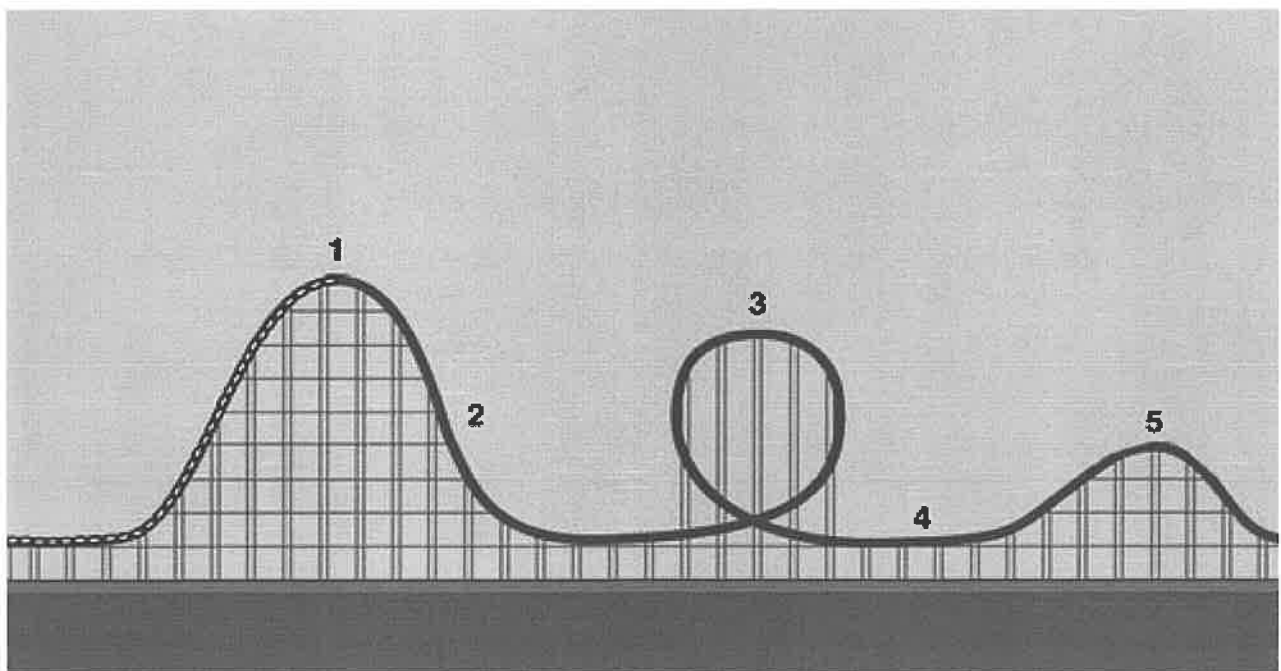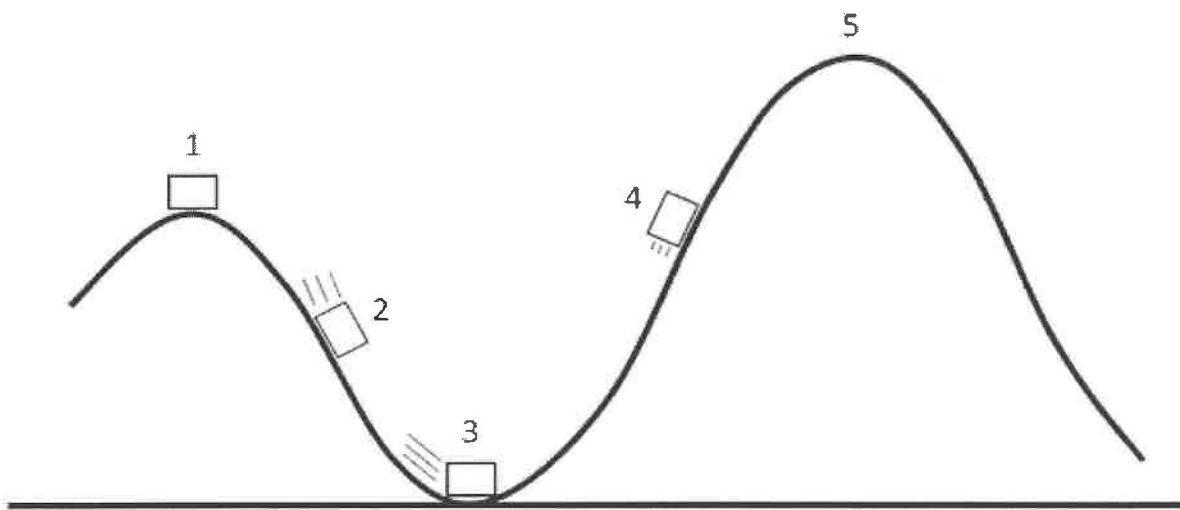
# Thermal Energy Illustration

Directions: You will create a real life example of conduction, convection, and radiation. Make sure you label the heat transfer from a higher temperature to a lower temperature in each example.

**Conduction:**

**Convection:**

**Radiation:**

# Chemical Change Illustration

Directions: You will create TWO real life examples of BOTH chemical and physical change.

Differences between physical and chemical change

| Physical change | Chemical change |
|---|---|
| No new substance formed | New substance formed |
| Can be reversed | Hard to reverse |
| Temporary | Permanent |

**Example of a Physical Change:**

**Example of a Physical Change:**

**Example of a Chemical Change:**

**Example of a Chemical Change:**

# Food Chain Illustration

Directions: You will create your own food chain starting with grass as a producer/autotroph. Make sure to label the type of biotic/living thing, and also the level of energy they are such as producer, primary consumer, and secondary consumer. Also INCLUDE the sun! It is our greatest source of energy.

**FOOD CHAIN**

Grass- producer/autotroph
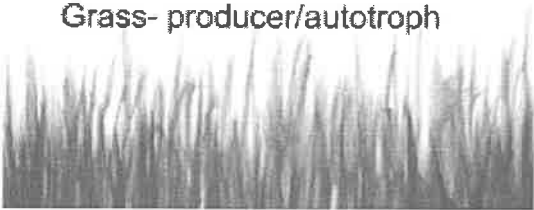
# 7th Grade Social Studies Menu Board
## NTI Days 31-35

**Directions:** Pick any activities from the menu below. Your grade is based on your completion of 50 points worth of activities. Please choose activities that will total 50 points. There is an attached rubric that will be used to grade your projects.

| Brochure | Timeline | Create |
|---|---|---|
| Create a brochure to inform people about the Aztecs, Maya, and Inca. You should include major achievements, important dates, geography, and economics for each group. You should also include at least one illustration for each section. **10 pts.** | Create a timeline of your 7th grade school year. You must include 10 events, an illustration and explanation for each event, and the month and year for each event. The timeline can be organized in a vertical or horizontal line in chronological order. **10 pts.** | Create an original play, poem, or song about a person or event from ancient history. **10 pts.** |
| **Postcards/Letters** | **Judge** | **Teach** |
| Write a postcard or letter to someone that describes your life during the Coronavirus. What are some positive things you have experienced? What have you learned? Has this changed your perspective or attitude towards school or other parts of your life? Remember we are living history right now. **20 pts.** | Use a T-chart to detail life in ancient Greece versus ancient Rome. Write down at least 5 facts for each side. Explain in a few sentences which place you would have rather lived and why. **5 pts.** | Choose your favorite topic from this year. Write a plan for teaching about this topic to someone else (a friend, sibling, family member, etc.). The plan should include directions, materials list, and an exit slip. For 10 extra points, teach your lesson and write a reflection about how it went. **20 pts.** |
| **Compare/Contrast** | **Interview** | **Poster** |
| Choose two different civilizations we have learned about this year. Create a venn diagram or three-column chart to compare and contrast them. Please include at least 5 characteristics in each section. **5 pts.** | Choose either one historical person, family member, or essential worker to interview. Create a set of 10 meaningful questions to ask. Tell why you would interview this person. For 10 extra bonus points, if you interview a relative or essential worker you may conduct your interview via phone call, video chat, or handwritten letter if they do not live in your house. Feel free to also interview a teacher! **10 pts.** | Choose a time period or civilization that we have learned about this year. Create a neat, colorful poster highlighting important events, GRAPES characteristics, and important ideas from that period or civilization. This must include at least five illustrations. **10 pts.** |

# Rubric for Choice Board Project

Name_____

Product Topic/Choice_____

| Criteria | Full Credit 10 - Points | Half Credit 8 - Points | No Credit 6 - Points | Grade: |
|---|---|---|---|---|
| **Content:** Is the content of the product well chosen? | Content chosen represents the best choice for the product. Graphics are well chosen and related contents. | Information or graphics are related to content, but are not the best choice for the product. | Information or graphics presented does not appear to be related to topic or tasks. | |
| **Completeness:** Is everything included in the product? | **All information needed is included.** Product meets the product criteria and the criteria of the task as stated. | Includes **most** important information Product meets the product criteria and the criteria of the task as stated. | Includes **less than 50%** of the important information. The product does not meet the task, or does not meet the product criteria. | |
| **Creativity:** Is the product original? | Presentation of information is from a new perspective. Graphics are original. Product includes an element of fun and interest. | Presentation of information is from a new perspective. Graphics are not original. Product has elements of fun and interest. | There is no evidence of new thoughts or perspectives in the product. | |
| **Correctness:** Is all the information included correct? | All the information presented in the product is correct and accurate | N/A | Any portion of the information presented in the product is incorrect. | |
| **Appropriate Communication:** Is the information in the product well communicated? | All information is neat and easy to read. Product is in appropriate format and show significant effort. Oral presentations are easy to understand and presented with fluency. **NO COPY AND PASTED INFORMATION!** | **Most** of the product is neat and easy to read. Product is in appropriate format and show significant effort. Oral presentations are easy to understand, with some fluency. | The product is not neat and easy to read or the product is not the appropriate format. It does not show significant effort. Oral presentation was not fluent or easy to understand. | |
| | | | **Total Grade (50 points possible):** | |

**Comments:**

# Language Arts Choice Board: NTI #31-35

**Directions:** Pick any of the activities from the menu below. Your grade is based on your completion of 50 points worth of activities. Please choose activities that will total 50 points. There is an attached rubric that will be used to grade your projects.

| | | |
|---|---|---|
| **1** **BROCHURE- 10 pts** Create a brochure to inform people about 7th grade Language Arts. You should include important content covered, the format of the class, and materials needed. You should also include at least one illustration/picture for each section. | **2** **Interview- 5-10 pts** Choose an essential worker to interview. (This can be family members that are still working!) Create 10 essential questions to ask them about their experiences during the COVID-19 pandemic. (Try to ask questions that highlight the positive and negative aspects of their experience.) *IF YOU CHOOSE TO CREATE A VIDEO INTERVIEW, THIS WILL BE A **10 POINT** ASSIGNMENT!* | **3** **Teach a Lesson- 10 points** Teach a lesson about your favorite story you have read this year! Discuss the characters, plot, and theme of the story. Some stories that you might consider: "The Run" "Seventh Grade" "The Legend of Sleepy Hollow" "Thank You, M'am" "The Lottery" "Sleeping" "The Landlady" "Lamb to the Slaughter" |
| **4** **Journal- 10 points** In 2 pages, reflect about your time at home during the COVID-19 virus. Your journal should address the following: -How you used your time -How you entertained yourself -Typical daily routine -Positive/Negative aspects of your experience ***Students that have been keeping a daily journal WILL be permitted to use their journal for this assignment.*** | **5** **Prediction- 10 points** Write a 3.8 paragraph that predicts how things will change once we are out of the COVID-19 shut down. (A **3.8 paragraph** is a paragraph that makes three points in the following 8-sentence format: 1: Topic Sentence/Main Idea 2&3: Point 1 4&5: Point 2 6&7 Point 3 8: Concluding sentence | **6** **Get artistic!- 5 points** Choose and read a text. (This can be a short story, novel, or poem.) Draw a large, creative symbol that signifies or represents an important aspect of the text's central conflict or theme. This **MUST** be detailed, creative, and either shaded with pencil, chalk, or other art supplies, or colored! |

| **7** Internal and External Conflict - 5 pts | **8** Book Trailer - 20 pts | **9** Digital Trading Cards- 10 pts |
|---|---|---|
| List real world examples of conflict that you have experienced or that you have witnessed in news coverage since home due to COVID 19. You will need to have an example for Man Vs. Self, Man Vs. Man, Man Vs. Society, and Man Vs. Nature. Be sure to explain each example | Create a book trailer for a book you have read this year. You can use the digital tool of your choice. Tell a brief story about the central conflict and characters without revealing too much, and use music to set the tone! Make me want to read this book! :) | Create Reading Trading Cards using the digital tool of your choice. Include the topic, the definition, and an example for each card! Your set should have 10 cards. Pick one of the following themes: <br> -Poetic Devices/Figurative Language <br> -Genres of Writing <br> -Literary Elements |

# Rubric for Choice Board Project

Name _____

Product Topic/Choice _____

| Criteria | Full Credit<br>10 - Points | Half Credit<br>8 - Points | No Credit<br>6 - Points | Grade: |
|---|---|---|---|---|
| **Content:**<br>Is the content of the product well chosen? | Content chosen represents the best choice for the product. Graphics are well chosen and related contents. | Information or graphics are related to content, but are not the best choice for the product. | Information or graphics presented does not appear to be related to topic or tasks. | |
| **Completeness:**<br>Is everything included in the product? | **All information needed is included.** Product meets the product criteria and the criteria of the task as stated. | Includes **most** important information Product meets the product criteria and the criteria of the task as stated. | Includes **less than 50%** of the important information. The product does not meet the task, or does not meet the product criteria. | |
| **Creativity:**<br>Is the product original? | Presentation of information is from a new perspective. Graphics are original. Product includes an element of fun and interest. | Presentation of information is from a new perspective. Graphics are not original. Product has elements of fun and interest. | There is no evidence of new thoughts or perspectives in the product. | |
| **Correctness:**<br>Is all the information included correct? | All the information presented in the product is correct and accurate | N/A | Any portion of the information presented in the product is incorrect. | |
| **Appropriate Communication:**<br>Is the information in the product well communicated? | All information is neat and easy to read. Product is in appropriate format and show significant effort. Oral presentations are easy to understand and presented with fluency. **NO COPY AND PASTED INFORMATION!** | **Most** of the product is neat and easy to read. Product is in appropriate format and show significant effort. Oral presentations are easy to understand, with some fluency. | The product is not neat and easy to read or the product is not the appropriate format. It does not show significant effort. Oral presentation was not fluent or easy to understand. | |
| | | | **Total Grade**<br>**(50 points possible):** | |

**Comments:**

# NTI Days 31 - 35 Math Assignments

Topic: General Review

Day 31: Analyzing Linear Functions (from words)

Day 32: Geometry Vocabulary Review

Day 33: Writing Linear Equations (from a table)

Day 34: Functions Vocabulary Review

Day 35: Analyzing Functions (from a graph)

Comments:

*All of these assignments were chosen based off of content that has already been covered in class this year.*

If you have any questions, you can contact Ms. Herrington four different ways:

1. Message on Remind101 (Send @hbc3c8 to 81010 to join)
2. Text: (859) 749-6499
3. Email: melody.herrington@harrison.kyschools.us
4. Join Ms. Herrington on Zoom at 1:00 pm on Monday and Wednesday. This will be a joint meeting with Ms. Hanrahan. Make sure to join my Remind group so I can send you the meeting password for each session.

    Use Personal Meeting ID: 582 581 2645

Mr. Persinger can be contacted two different ways:

1. Email: Rodney.persinger@harrison.kyschools.us
2. Phone: (859) 234-7123 (leave message with front desk)

Name _____

Date _____

Team: Maroon or Gold

# Addition of Integers

**Directions**  Fill in the missing squares so that each column, row, and diagonal adds up to the same sum.

| 5  | -9 | 1  |
|----|----|----|
| -5 | -1 | 3  |
| -3 | 7  | -7 |

Sum = _-3_

| | 1 | 11 |
|---|---|----|
| 13 | 5 | |
| | 9 | |

Sum = _____

| | -5 | | 6 |
|---|----|---|---|
| | 4 | 3 | |
| 2 | 0 | | 5 |
| -3 | | | -6 |

Sum = _____

| 22 | -6 | | |
|----|----|---|----|
| | | 10 | |
| 8 | 4 | 2 | 14 |
| | 18 | 20 | |

Sum = _____

51    *80 Activities to Make Basic Algebra Easier*

Name _____     Date _____

# Integer Wheel
## (Multiplying)

**REMEMBER!** If both integers are positive or negative, then the product is positive. If one integer is positive and the other is negative, then the product is negative.

**DIRECTIONS** The product of any 3 factors in a straight line across the wheel should be the same. Use the integers in the box next to each wheel to complete each 3-factor spoke. Write the product of each wheel's spokes.
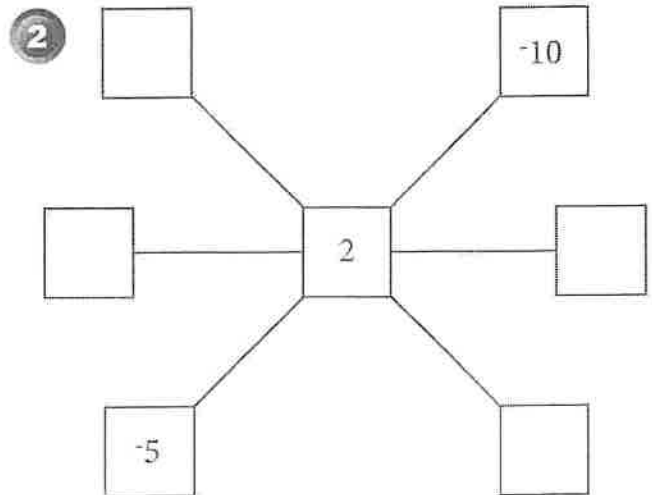
**1**

| ⁻15 | ⁻5 |
|-----|----|
| 2   | 6  |

10 — 3 — ⁻3
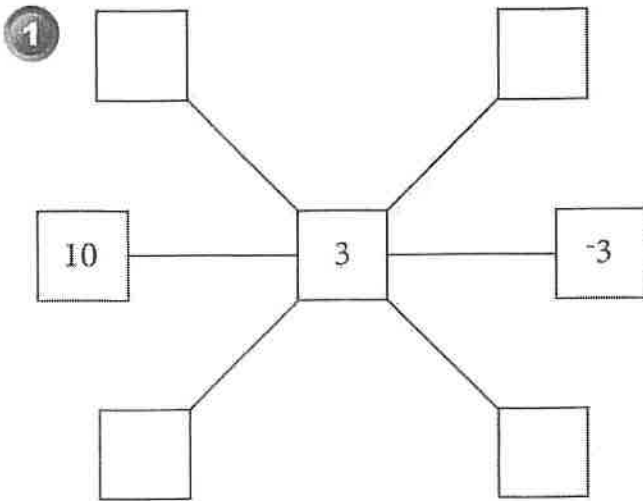
Product = ⁻90

| -25 | 10 |
|-----|----|
| -2  | 5  |

Product = _____

**2**

⁻10

2

⁻5

**3** If one number in the wheel is zero, what must the product of every "spoke" be?

_____

{Day 32}            **Variables**   Team: Maroon or Gold

Pronouns were added to languages so early on that their exact appearance in the development of language is unknown. Maybe pronouns like I were invented before first names. We really do not know. But we do know that words like I, **me**, **mine**, and it make communication easier.

Variables are the "pronouns" of math. Instead of saying "unknown quantity," we say $x$. Instead of saying "that other unknown quantity," we say $y$. Let's imagine that we know we need to buy two apples for each person coming to our party, but we do not know how many people are coming to the party. We can write $2x$ to represent "twice the unknown number of people coming to the party."
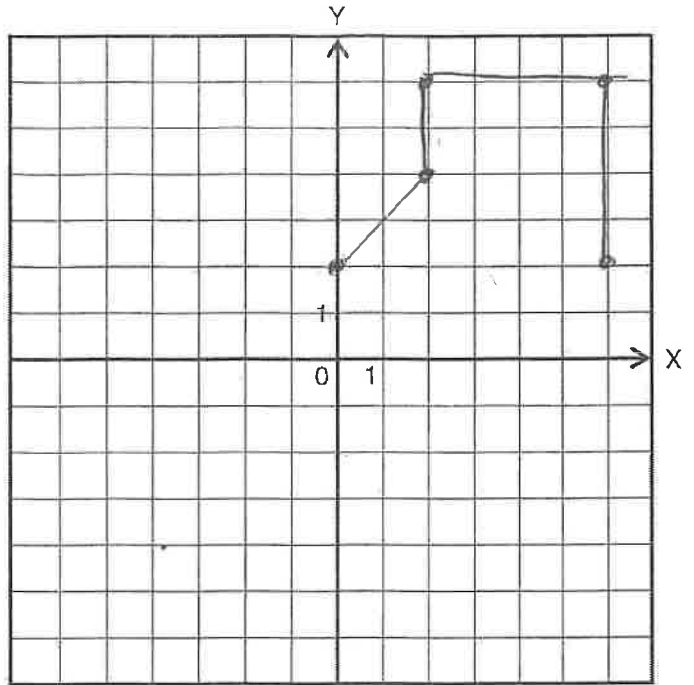
**DIRECTIONS**  Multiply each pair of factors and record the product in the table. Notice that some factors are variables. The examples show how to record a product that includes a variable.

| $\times$ | 5 | $^{-}1$ | $n$ | 12 | $^{-}y$ | 2 | 0 |
|---|---|---|---|---|---|---|---|
| $z$ | $5z$ | | $zn$ | | | | |
| $^{-}6$ | | | | $-72$ | | | |
| 4 | | | | | | | |
| 9 | | | | | $-9y$ | | |
| 7 | | | | | | | |
| $^{-}3$ | | | | | $3y$ | | |
| $x$ | | | | | | | |

# ALGEBRA ANTICS #14

Solve all the equations for the given variables. Put each answer in the blank in the ordered pair. Take the ordered pair for problem #1 and plot the point on the graph. The first number of the pair tells how far to move horizontally on the x-axis; the second number tells how far to move vertically on the y-axis. Next, plot the point for #2. Draw a line to connect the two points. Continue plotting each new point and connecting it to the preceding point until you reach the end.



1. $5y + 7 = 17$     $(0, 2)$
$-7 \quad -7$
$\frac{5y}{5} = \frac{10}{5}$   $\boxed{y = 2}$

2. $14 - 3m = 2$     $(2, 4)$
$-14 \quad -14$
$\frac{-3m}{-3} = \frac{-12}{-3}$   $\boxed{m = 4}$

3. $9x - 13 = 5$     $(2, 6)$
$+13 \quad +13$
$\frac{9x}{9} = \frac{18}{9}$   $\boxed{x = 2}$

4. $^-3 = 7h - 45$     $(6, 6)$
$+45 \quad\quad +45$
$\frac{42}{7} = \frac{7h}{7}$   $\boxed{6 = h}$

5. $2r + 4 = 4(4)$     $(6, 2)$
$2r + 4 = 16$
$\frac{-4 \quad -4}{\frac{2r}{2} = \frac{12}{2}}$   $\boxed{r = 6}$

6. $5 + 8w = 37$     $(\_\_, 2)$

7. $^-11 = 5y + 4$     $(^-1, \_\_)$

8. $15 - 9u = 51$     $(^-2, \_\_)$

9. $8k + 60 = 12$     $(^-2, \_\_)$

10. $^-29 = 4x - 5$     $(\_\_, ^-6)$

11. $4 - 7g = 18$     $(^-6, \_\_)$

12. $4v - 19 = ^-35$     $(\_\_, ^-2)$

13. $5a + 56 = ^-7(^-8)$     $(\_\_, 2)$

14. $25 = 34 - 3y$     $(^-1, \_\_)$

15. $17x + 5 = ^-3(4)$     $(\_\_, 5)$

16. $3 - 9c = 7(^-6)$     $(^-5, \_\_)$

17. $22 = 2 - 4d$     $(\_\_, 1)$

18. $13y - 8 = 5$     $(^-3, \_\_)$

19. $8n + 6(4) = 0$     $(1, \_\_)$

20. $6x + 37 = 43$     $(\_\_, ^-5)$

21. $^-7 = 18 - 5f$     $(\_\_, ^-5)$

22. $24 - 7y = 31$     $(5, \_\_)$

23. $9t + 3 = ^-5(^-6)$     $(\_\_, ^-1)$

24. $8 + 3e = 4(2)$     $(\_\_, 2)$

  

Name _____    DATE _____

Day 33

Team: Maroon or Gold

# 170. Definition Puzzle
# on Ratios, Probability, and Average

★ Place the answers to this puzzle in their correct locations across or down. A Choice Box has been provided.

[Crossword grid with numbered cells: 11, 8, 5, 15, 14, 10, 1, 2, 4, 3, 6, 7, 12, 9, 13]

## ACROSS

1. The likelihood that something will occur
3. You make this when you judge two or more things together
6. When things get bigger or larger
7. The shape or style of something
9. When things are equal, they are _____
10. When you add a column of numbers and divide by the number of numbers
13. The middle number in a set or column of numbers (when ordered least to greatest or greatest to least)
14. What something is worth
15. %

## DOWN

2. 3:5:7 is a three-_____ ratio
4. When you lose something, it is a _____
5. A name given when two ratios are equal
8. A regular form or shape
11. The average of a set or column of numbers
12. The number that occurs most often in a set or column of numbers

## CHOICE BOX

| | | | | |
|---|---|---|---|---|
| increase | mean | mode | loss | median |
| equivalent | probability | proportion | forms | value |
| pattern | term | comparison | average | percent |

Solve all the equations for the given variables. Put each answer in the blank in the ordered pair. Take the ordered pair for problem #1 and plot the point on the graph. The first number of the pair tells how far to move horizontally on the x-axis; the second number tells how far to move vertically on the y-axis. Next, plot the point for #2. Draw a line to connect the two points. Continue plotting each new point and connecting it to the preceding point until you reach the end.
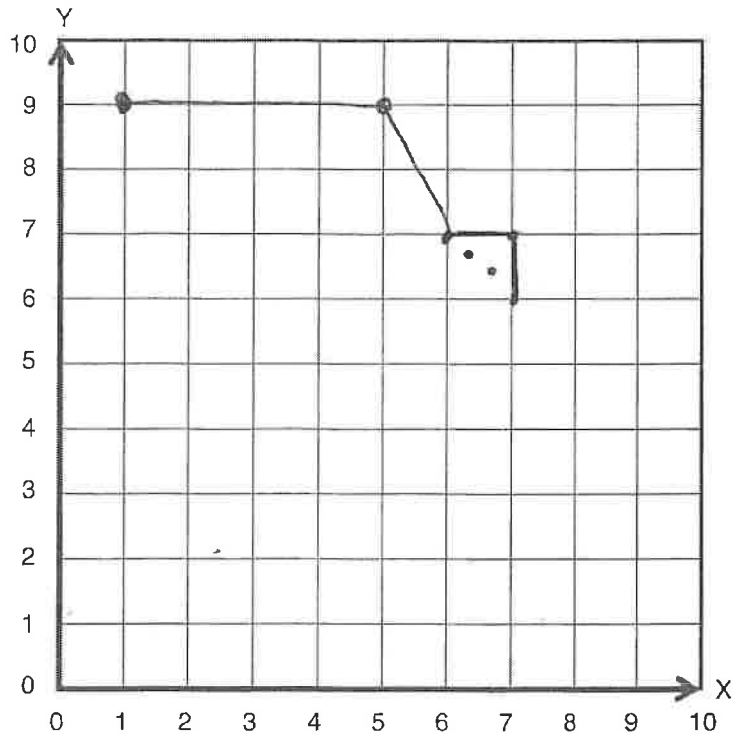
$(x, y)$

1. $\dfrac{7}{x} = \dfrac{21}{3}$  ( 1 , 9)

$7 \cdot 3 = 21x$
$\dfrac{21}{21} = \dfrac{21x}{21}$
$\boxed{1 = x}$

2. $\dfrac{x}{10} = \dfrac{21}{42}$  ( 5 , 9)

$42x = 10 \cdot 21$
$\dfrac{42x}{42} = \dfrac{210}{42}$  $\boxed{x = 5}$

3. $\dfrac{12}{2} = \dfrac{x}{1}$  ( 6 , 7)

$12 \cdot 1 = 2x$
$\dfrac{12}{2} = \dfrac{2x}{2}$  $\boxed{6 = x}$

4. $\dfrac{48}{6} = \dfrac{56}{y}$  (7, 7 )

$48y = 6 \cdot 56$
$\dfrac{48y}{48} = \dfrac{336}{48}$  $\boxed{y = 7}$

5. $\dfrac{3}{2} = \dfrac{y}{4}$  (7, 6 )

$3 \cdot 4 = 2y$
$\dfrac{12}{2} = \dfrac{2y}{2}$  $6 = y$

6. $\dfrac{1}{x} = \dfrac{7}{63}$  ( __ , 5)

7. $\dfrac{56}{7} = \dfrac{32}{y}$  (9, __)

8. $\dfrac{x}{6} = \dfrac{15}{10}$  ( __ , 1)

9. $\dfrac{x}{12} = \dfrac{6}{9}$  ( __ , 3)

10. $\dfrac{27}{y} = \dfrac{18}{2}$  (6, __)

11. $\dfrac{8}{y} = \dfrac{6}{3}$  (6, __)

12. $\dfrac{16}{8} = \dfrac{x}{2}$  ( __ , 3)

13. $\dfrac{y}{9} = \dfrac{8}{24}$  (3, __)

14. $\dfrac{36}{4} = \dfrac{27}{x}$  ( __ , 4)

15. $\dfrac{x}{4} = \dfrac{8}{8}$  ( __ , 6)

16. $\dfrac{y}{7} = \dfrac{66}{77}$  (3, __)

17. $\dfrac{2}{3} = \dfrac{y}{12}$  (3, __)

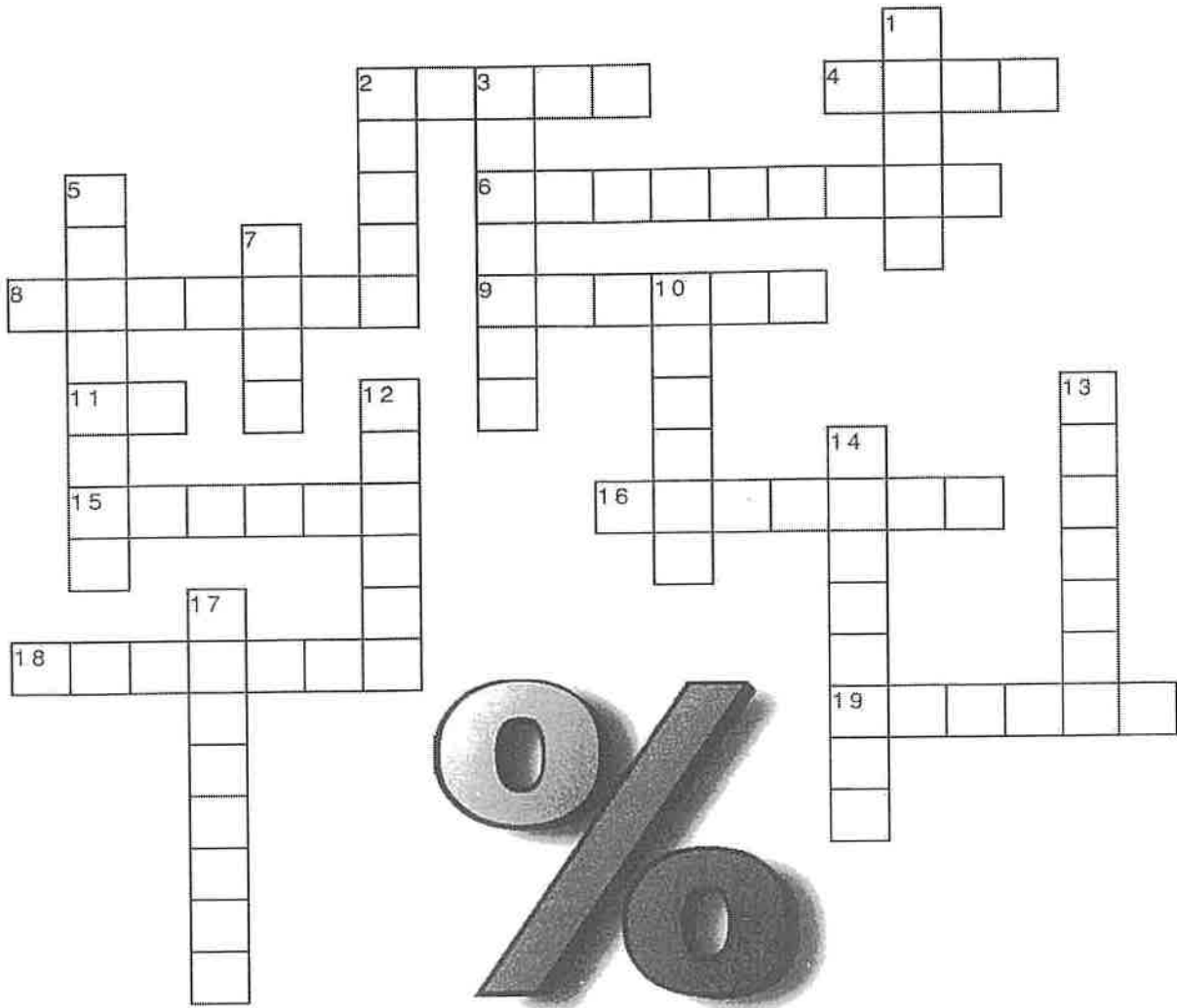18. $\dfrac{x}{9} = \dfrac{8}{72}$  ( __ , 9)

Name _____  Date _____

## Percentages Crossword Puzzle

2x + 3 = y

Complete each problem below and then place the answer in the crossword puzzle. Include decimal points and percent signs in the answers in the crossword puzzle.

**ACROSS**

2. Convert 6.5% to a decimal. _____
4. Convert 77% to a decimal. _____
6. Convert 0.00523% to a decimal. _____
8. Convert 42.303 to a percent. _____
9. Convert 0.1695 to a percent. _____
11. Convert 0.01 to a percent. _____
15. Convert 579.51% to a decimal. _____
16. Convert 32.064 to a percent. _____
18. Convert 5.0069 to a percent. _____
19. Convert 6.895 to a percent. _____

**DOWN**

1. Convert 892.1% to a decimal. _____
2. Convert 0.0087 to a percent. _____
3. Convert 0.000719 to a percent. _____
5. Convert 28.1054% to a decimal. _____
7. Convert 191% to a decimal. _____
10. Convert 0.09542 to a percent. _____
12. Convert 0.00102 to a percent. _____
13. Convert 1,000.75% to a decimal. _____
14. Convert 12.3635% to a decimal. _____
17. Convert 70.0341% to a decimal. _____

Name: _____    Date: _____

**NCTM Standard: Number and Operations** – understand ways of representing numbers and work flexibly with fractions, decimals, and percents

## Nab Some Fraction-Decimal-Percent Equivalents

| | | | |
|---|---|---|---|
| $5\frac{1}{100}$ | 0.20 | 0.5 | 0.0015 |
| 1.5% | $1\frac{2}{10}$ | 0.002 | 0.05 |
| 0.00005 | 0.0012 | $\frac{15}{1000}$ | 1.2% |
| 0.12 | 0.0002 | 0.0005 | $\frac{5}{1000}$ |

(Fraction Decimal or Percent?)

**In each of the problems below, decide which equivalent is missing. Then find the answer in the boxes above. Write the item number on the line in the box that has the correct answer.**

| 1. | 120% | 1.2 | _____ | 2. | 0.5% | 0.005 | _____ |
|---|---|---|---|---|---|---|---|
| 3. | 0.15% | $\frac{15}{10000}$ | _____ | 4. | 12% | $\frac{12}{100}$ | _____ |
| 5. | 0.12% | $\frac{12}{10000}$ | _____ | 6. | 0.012 | $\frac{12}{1000}$ | _____ |
| 7. | 50% | $\frac{1}{2}$ | _____ | 8. | 501% | 5.01 | _____ |
| 9. | 0.05% | $\frac{5}{10000}$ | _____ | 10. | 0.2% | $\frac{2}{1000}$ | _____ |
| 11. | 20% | $\frac{20}{100}$ | _____ | 12. | 1.5% | 0.015 | _____ |
| 13. | 5% | $\frac{5}{100}$ | _____ | 14. | 0.005% | $\frac{5}{100000}$ | _____ |
| 15. | 0.02% | $\frac{2}{10000}$ | _____ | 16. | 0.015 | $\frac{15}{1000}$ | _____ |

# ¿Day 35?

## Chance and Data

### Probability

1. Find these words hidden in the grid.

certain    likely
data    no chance
equal chance    fifty fifty
even chance    poor chance
fair chance    possible
improbable    probable
good chance    random
impossible    unlikely
one out of two

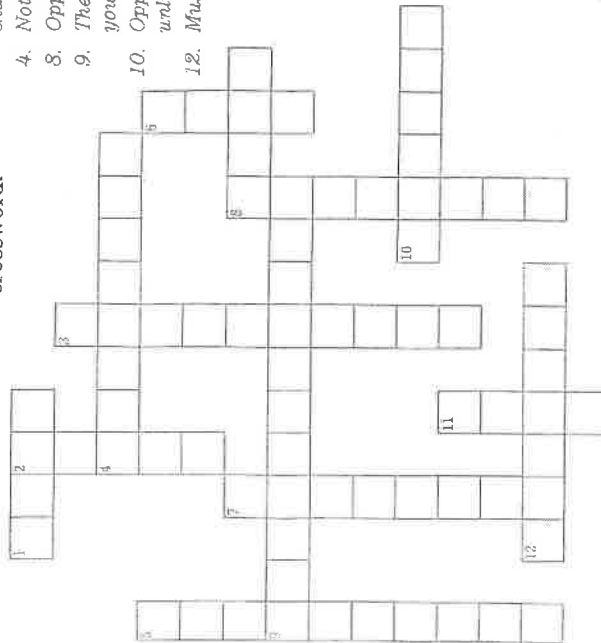| o | e | l | b | a | b | o | r | p | m | i | p | y | f | p |
| n | b | x | h | e | e | b | a | c | e | e | p | l | i | o |
| e | q | u | a | l | c | h | a | n | c | e | r | e | m | s |
| o | o | t | v | u | u | n | n | t | n | n | b | o | k | p |
| u | n | p | h | t | a | f | a | a | j | b | i | o | i | s |
| t | z | n | e | j | h | h | d | h | h | b | a | l | s | b |
| o | p | o | o | r | c | h | a | n | c | e | b | n | s | l |
| f | f | r | a | n | d | o | m | i | m | r | n | l | u | e |
| t | u | v | o | i | n | s | d | c | i | b | e | x | b | a |
| w | j | o | c | m | v | z | f | v | a | p | x | v | l | i |
| n | i | a | t | r | e | c | l | i | k | e | l | y | x | m |

2. Use the clues to complete the crossword.



**Across**

1. Another word for an "equal" chance
4. Not likely
8. Opposite of a "good" chance
9. The chance of getting a head if you toss a coin once
10. Opposite of unlikely
12. Must happen, definite

**Down**

2. Rearrange these letters to make another word for "the same" — qaule
3. Two numbers which, put together, mean an equal chance
5. Can't happen, no way!
6. Between an even chance and certain
7. The chance of the moon being made of cheese
8. It could happen
11. Pieces of information

Math Word Puzzles

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-18-

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ARGOPREP

1. Marquis is preparing to fly from Honolulu to Seattle. There are 150 passengers on the flight. Marquis determines 16% of the passengers are children. Which response describes a random sample Marquis could have used to make this prediction?

A. Marquis counted the number of children in the first 10 rows of the plane

B. Marquis asked the person sitting next to him to predict how many passengers are children.

C. Marquis asked the 4 flight attendants how many of the passengers are children.

D. Marquis counts the number of seats on the plane.

SHOW YOUR WORK

2. Alex places 100 marbles inside a bag. The marbles are blue, black, green and red. After drawing a marble out of the bag 20 times, he takes out 9 black marbles, 4 blue marbles, 5 red marbles, and 2 green marbles. Based on his sample, about how many marbles in the bag are green?

A. 80
B. 20
C. 2
D. 10

SHOW YOUR WORK

Name _____

Team: Maroon or Gold

3. Ben collects data about a group of travelers' recent visit to Puerto Rico. He records his data in this table.

| Level of Satisfaction with Visit | Number of People |
|---|---|
| 1 - Unsatisfied | 1 |
| 2 - Somewhat satisfied | 2 |
| 3 - Satisfied | 5 |
| 4 - Very satisfied | 4 |

What is a conclusion Ben can draw based on his data?

A. The majority of people were unsatisfied with their trip.

B. The majority of people were satisfied with their trip.

C. All people were unsatisfied about the trip.

D. The majority of people were undecided about their trip.

SHOW YOUR WORK
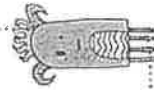
4. The data in this bar graph shows the different sports played by the students in Bryson's class.
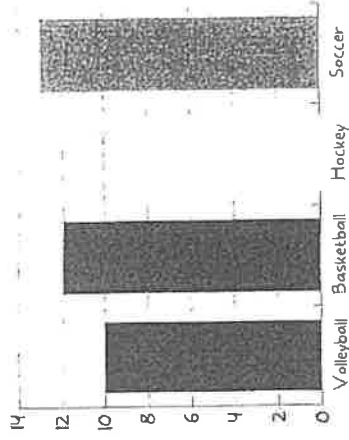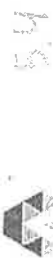


There are 575 students in Bryson's school. Using this data to make inferences about the entire school, how many students play hockey?
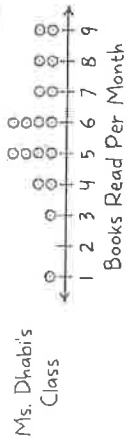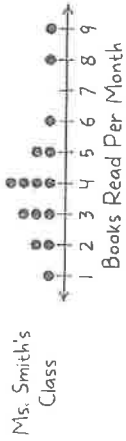
A. 55

B. 426

C. 110

D. 260

SHOW YOUR WORK

**7.** Harriet is baking cookies. The values in this table list the amount of time it takes for each batch of cookies to bake. The batches take 7, 26, 29, 28 and 26 minutes. The mean for the batch is 27 minutes. How long did the first batch take?

| Harriet's Cookies (minutes) | |
|---|---|
| 1st | ? |
| 2nd | 26 |
| 3rd | 29 |
| 4th | 28 |
| 5th | 26 |

SHOW YOUR WORK

A. 26 minutes

B. 27 minutes

C. 28 minutes

D. 29 minutes

**8.** Jonathan surveys a random sample of 13 students at his school to find out how many students ride the bus. Four students ride the bus. Which number is an appropriate prediction of the number of students in the school who ride the bus if there are 175 students at his school?

SHOW YOUR WORK

A. 4

B. 14

C. 54

D. 114

---

**5.** What is the statistical center of Mrs Smith's class?

SHOW YOUR WORK

Ms. Smith's Class
Books Read Per Month

Ms. Dhabi's Class
Books Read Per Month

A. 1

B. 2

C. 3

D. 4

**6.** What is the statistical distribution of Ms. Dhabi's class?

SHOW YOUR WORK

Ms. Smith's Class
Books Read Per Month

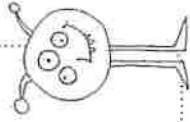Ms. Dhabi's Class
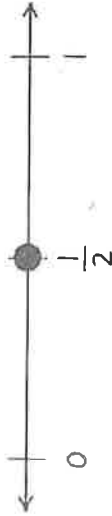Books Read Per Month

A. 9

B. 8

C. 7

D. 6

9. Larson has a bag with 15 marbles. There are 2 blue, 1 white, 6 black and 6 yellow marbles inside the bag. What is the probability of drawing a white marble from Larson's bag?

A. unlikely

B. impossible

C. neither unlikely or likely

D. certain

SHOW YOUR WORK

10. The point shown on this number line represents the probability of an event.

$\frac{1}{2}$

0

Which statement best describes the event?

A. The event is likely to happen.

B. The event is certain to happen.

C. The event is impossible.

D. The event is as unlikely to happen as it is likely to happen.

SHOW YOUR WORK
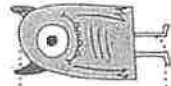
11. Earl flips a coin. The coin has heads on one side, and tails on the other. Earl flips the coin 500 times. Which value is an accurate prediction of the number of times Earl should expect the coin to land on heads?

A. 100

B. 215

C. 250

D. 375

SHOW YOUR WORK
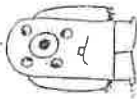
12. Myles is rolling a six-sided number cube 300 times. The numbers on the cube are the numbers 1-6. Which event is predicted to take place approximately 200 times?

A. Rolling 1-4

B. Rolling an even number

C. Rolling a 1

D. Rolling 2 or 3

SHOW YOUR WORK
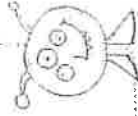
13. Mark rolls two dice 10 times. He observes $\frac{5}{10}$ of his rolls resulted in at least one five. Mark combines his results with the other students in his class and discovers $\frac{11}{40}$ of the rolls for the entire class resulted in at least one five.

How do the results of Mark's class compare to the fraction of possible outcomes for rolling at least one five?

A. They are unrelated.

B. Equal to the possible outcomes

C. Higher than the possible outcomes

D. Lower than the possible outcomes

SHOW YOUR WORK
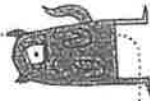
14. A number cube contains the numbers 1 through 6. Which probability model represents the chance of rolling an odd number on this number cube?

A. $\frac{5}{6}$

B. $\frac{2}{6}$

C. $\frac{1}{6}$

D. $\frac{1}{2}$

SHOW YOUR WORK

250

15. Roberta flips 3 coins. She records the possibilities of flipping each coin heads up H, and tails up, T, in a list. Each coin flip is an independent event. What is the probability of getting 3 heads?

A. $\frac{1}{2}$

B. $\frac{1}{8}$

C. $\frac{2}{4}$

D. $\frac{3}{6}$

SHOW YOUR WORK
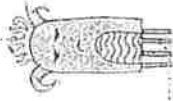
16. Donna chooses a shirt, a pair of pants, and a pair of socks to wear to school each day. This table lists the color of each piece of clothing.

| Shirt | Pants | Socks |
| --- | --- | --- |
| White | Blue | White |
| Black | Khaki | Black |
|  | Black | Tan |

What is the probability that Donna will wear khaki pants?

A. $\frac{1}{8}$

B. $\frac{1}{6}$

C. $\frac{1}{3}$

D. $\frac{3}{9}$

SHOW YOUR WORK

**17.** Christopher watches one of his 3 favorite television shows in the morning, and one of his 4 favorite television shows in the afternoon.

| Morning Television Shows | Afternoon Television Shows |
|---|---|
| The Cartoon Hour | The Adventures of Zedd |
| Kit and Kaboodle | Agents of I.M.A.G.E. |
| Thunder Birds | The Animal Show |
| | Keith and Eddie |

How many different combinations are possible?

A. 12

B. 7

C. 8

D. 15

SHOW YOUR WORK

**18.** A drink machine offers water, iced tea, milk and juice. How many ways can these drinks be arranged in the machine?

A. 6

B. 18

C. 12

D. 24

SHOW YOUR WORK

---

**19.** A jar contains 4 red beads, 7 green beads and 9 blue beads. What is the probability of selecting a red bead, replacing it, and then selecting a blue bead?

A. 20%

B. 16%

C. 9%

D. 6%

SHOW YOUR WORK

**20.** A veterinarian is developing the patient schedule for next week. There are animals to be added to the schedule. In how many different orders could the animals be added to the schedule?

A. 13

B. 120

C. 150

D. 200

SHOW YOUR WORK

Write your 1st & last Name: _____
(Print)

Baroque Music

# George Frederick Handel

George Frederick Handel was born on February 23, 1685, in Halle, Germany. He was not born into a family that was musically centered. Handel's father, a well-known and well-respected barber surgeon, did what he could to extinguish his son's early love for music, putting in its place the preparation fo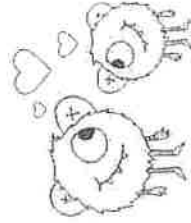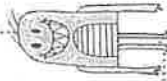r a career in law. But in secret, young George would practice on a small clavichord, and he progressed from playing familiar pieces to composing his own.

When he was seven, George went with his father to the court of a duke. There he played the court organ, and the Duke was so impressed with young Handel's talent that he persuaded the hesitant father to allow George to begin music lessons with the organist, Friedrich Zachau, who also taught the boy to play the harpsichord, the organ, the violin, and to compose music. As George studied, his fame spread. By age twelve, he became the assistant organist at Halle.

Although George's father still wanted him to study law, there was no denying the boy's exceptional musical talent. Soon after his father's death, young Handel answered the call of music full time, playing, teaching, and composing in Hamburg. He also traveled to Italy, learning how to compose Italian opera. In 1710, on a trip to England, Handel was so admired and respected there, he decided he would eventually like to become an English subject, which he did. By age 30, Handel was the most popular musician in England. He made most of his money by composing operas, but also tried other styles of writing. Handel developed the oratorio, which was like a short opera, telling a Bible story in a dramatic way. His most famous oratorio was the Messiah, a work he took twenty-three days to complete. When King George II of England heard the "Hallelujah Chorus" from the Messiah, he was so overcome by emotion that he stood. Audiences to this day continue the tradition.

Handel continued to play the harpsichord and organ, as well as to compose, well into his later years. He had composed 50 operas, 20 oratorios, and chamber and orchestral music, including such well-loved favorites as Water Music and Fireworks Music. Near the end of his life, Handel became blind, but his blindness did not stop him from creating music. It is quite amazing that he was at the organ for a performance of the Messiah eight days before his death on April 14, 1759. He was buried with honor in Westminster Abbey.

Baroque Music

# Johann Sebastian Bach

On March 21, 1685, Johann Sebastian Bach (BAHK) was born in Eisenach, Germany. He was surrounded from birth with music, for most of his relatives were musicians. They would gather for musical "feasts," and the town of Eisenach would be filled with music. Bach seemed destined to become a fine musician.

At an early age, Bach was taught the violin by his father. The young Bach proved to be a talented student. Before Bach was ten, his parents died and Johann went to live with an older brother. Bach continued his musical training, soon perfecting his ability on the clavichord, harpsichord, and organ, and he began to compose his own music. He also sang as a choirboy. By the time he was fifteen, he was ready to leave his brother's home to seek a career as a paid musician.

A teenage Bach became a violinist in Weimar, then a court organist and chamber musician. People were caught up in the cleverness of the accompaniments he played on the organ for hymns, and his fame as an organist spread. While in Weimar, Bach composed music for religious services, including many cantatas. Bach was a religious man, and the depth of his devotion was heard in his works. During this time, Bach composed his famous Toccata and Fugue in D minor.

Bach lived a full family life, fathering twenty children in his two marriages. The Bach home was filled with children, guests, and students who sometimes lived with the family. Of Bach's children, four sons went on to have careers in composition: Wilhelm Friedemann, Carl Philip Emanuel, Johann Christopher Friedrich, and Johann Christian.

Before his move to Leipzig in 1723, he composed Book I of the Well-Tempered Clavier, and the six "Brandenburg Concertos." After he moved to Leipzig in 1723 (where he lived the rest of his life), he became the director of music in a school and he wrote music for the churches in the city. It was in Leipzig that he composed such beautiful works as Magnificat and Mass in B minor.

Bach composed over 1,000 pieces of music. He expressed single moods in many of his pieces, trying to keep the same mood throughout the piece. He tried to express meaning rather than "showing off" the ability of the instruments and voices. He perfected the musical techniques of "fugue" (the repeating of a melody by different instruments with some variations) and "counterpoint" (the playing of two or more melodies at the same time). He used his musical talent to serve the church, his employers, and the people around him. Bach's great musical genius earned him the title "Father of Music."

# Comparing Composers

It is interesting to compare the lives of two of the great composers of the Baroque period: Handel and Bach. Although their style of composition was quite different, their lives were similar in some ways. Both were born in 1685 in Germany and both were outstanding organists. In addition to biographical information

Use the information from the front to fill in the Venn Diagram with 5 similarities & 5 differences between Bach & Handel.

## Activity _____

In the Venn diagram below, write ways in which their lives were alike and ways in which they were different.

Bach                    Handel

alike

different                    different
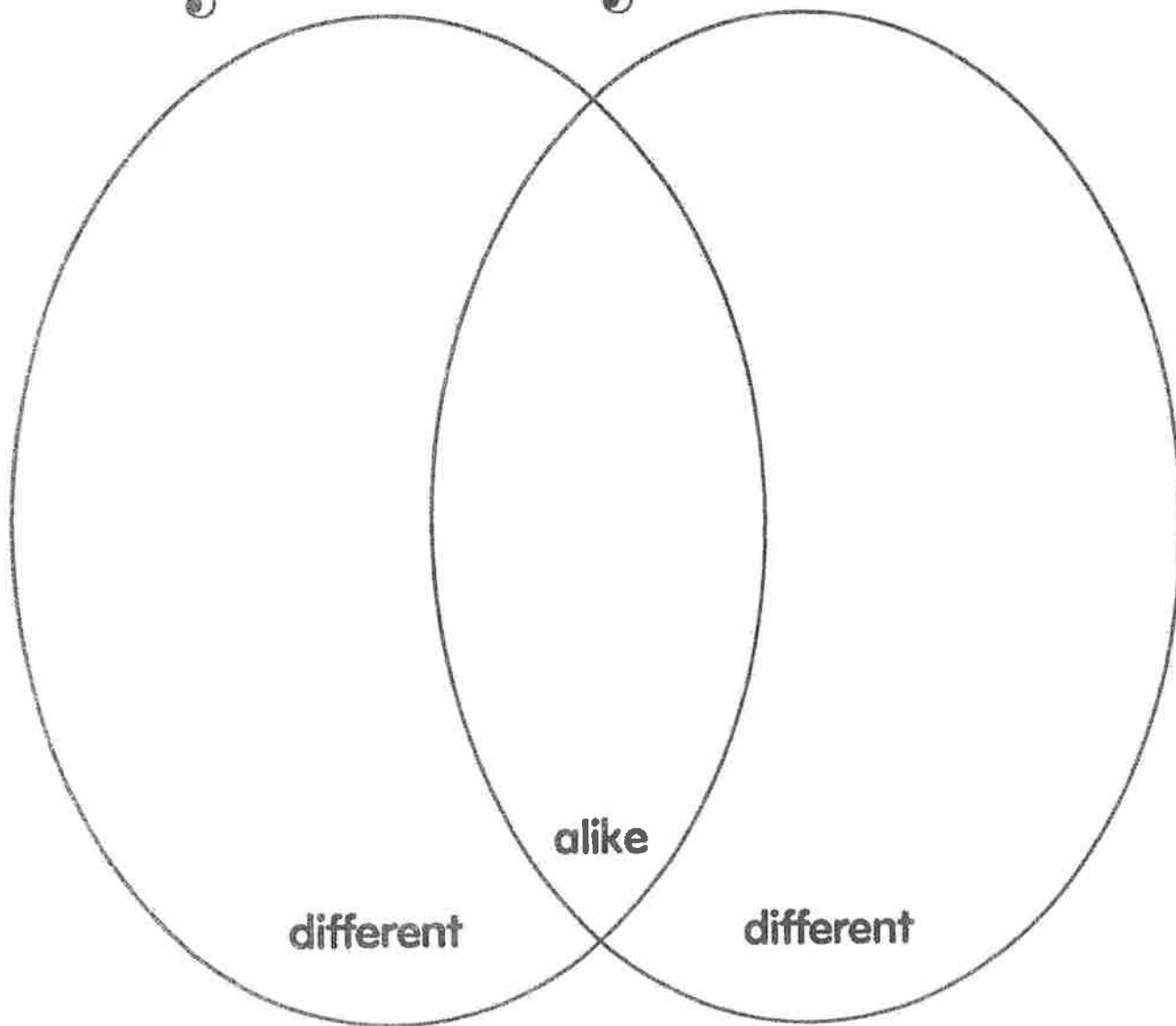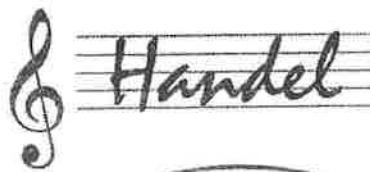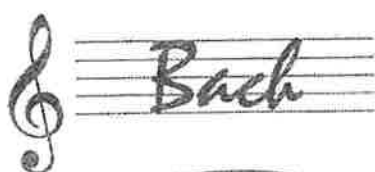
# NTI Days
## HEALTH

### Dangers of E-Cigarette Use/Vaping
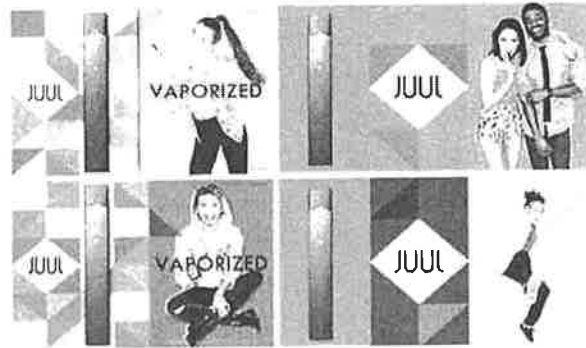


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**What is an E-Cigarette?**

Electronic cigarettes are battery-powered devices that use a heating element to heat a special liquid that is sold in replaceable pods. Many e-liquids come in flavors, making them appealing to kids. E-cigarettes are inhaled like regular cigarettes and produce an aerosol cloud of nicotine and other substances. Currently the most popular e-cigarette among teens is the JUUL, which looks like a USB flash drive and produces little visible aerosol when used. This allows them to be used more discreetly than combustible cigarettes.

E-cigarettes were originally marketed as a safe alternative for smokers wanting to quit the habit. Scientists, however, know very little about the risks associated with them as they have only existed for about 15 years and no testing concerning the long-term effects has been conducted. The Food and Drug Administration (FDA) has found no e-cigarette to be safe and effective in helping smokers quit. In fact, more than half of all adult e-cigarette users continue to use regular cigarettes. Also, because the FDA has not reviewed e-cigarettes or their ingredients, nor has it issued any standards on the products, e-cigarette make-up and effects vary from product to product. American Lung Association, www.lung.org

### PERCENTAGE OF STUDENTS WHO REPORTED USING CIGARETTES OR E-CIGARETTES



High School

E-Cigarettes ■ Cigarettes

| Year | E-Cigarettes | Cigarettes |
|---|---|---|
| 2011 | 1.5 | 15.8 |
| 2013 | 4.5 | 12.7 |
| 2015 | 16 | 9.3 |
| 2017 | 11.7 | 7.6 |
| 2019 | 27.5 | 5.8 |

Middle School

E-Cigarettes ■ Cigarettes

*Chart showing data from 2011 to 2019:*

- 2011: 0.6, 4.3
- 2013: 1.1, 2.9
- 2015: 3.9, 2.3
- 2017: 3.3, 2.1
- 2019: 10.5, 2.3
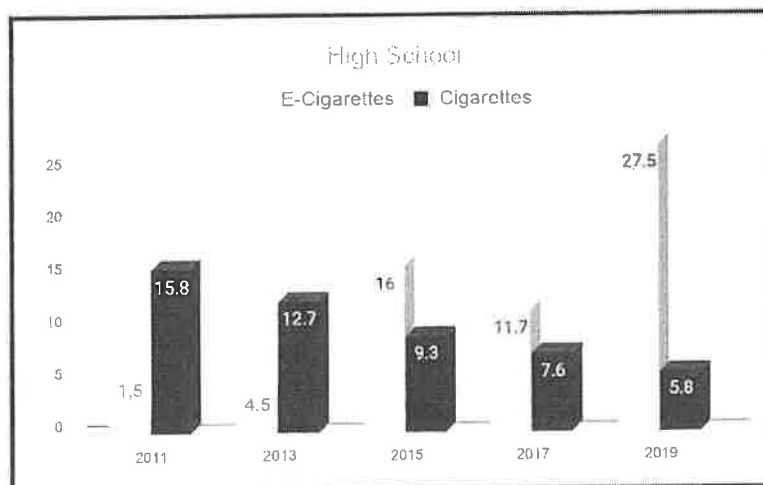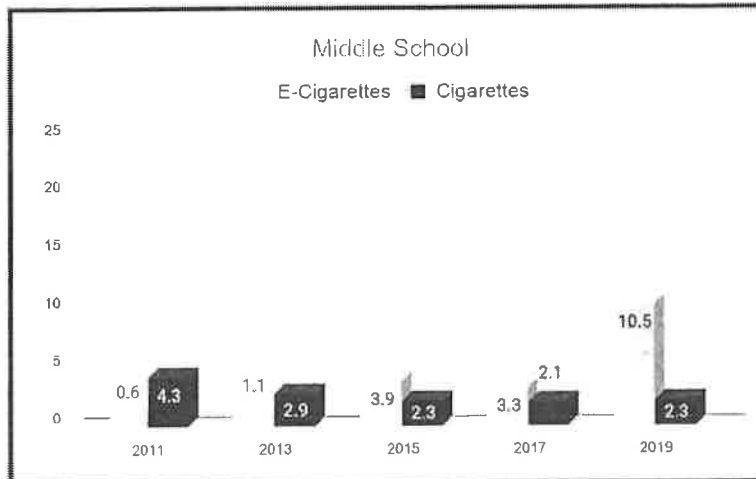
From Scholastic and the scientists of the National Institute on Drug Abuse, National Institutes of Health, U.S. Dept. of Health and Human Services.

## What is in an E-Cigarette?

While no research exists as to the long-term effects of e-cigarette use, researchers do know that e-cigarettes contain many toxic substances. Because there are no guidelines governing the making of e-cigarettes or e-liquid, there is no way to know exactly what is in it. Virtually all e-cigarettes contain nicotine - even those labeled as "nicotine free". Cartridge -based e-cigarettes like JUUL contain nicotine salts that do not produce vapor or visible emissions and may make the product even more addictive.

Other harmful substances found in vape pods include **propylene glycol** (a common food additive which is also used to make antifreeze and paint solvent, among other things); **formaldehyde** (a known carcinogen); **acrolein** (an herbicide primarily used as a weed-killer); **diacetyl** (which is used as a flavoring); heavy metals such as **nickel, tin** and **lead; cadmium** (a toxic metal used to make batteries); **benzene** (volatile organic compound also found in car exhaust); as well as **ultrafine particles** that can be inhaled deep into the lungs. E-cigarettes can also be used for delivery of marijuana and other illicit drugs.

1. American Lung Association, www.lung.org
2. The CDC - https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html
3. Know the risks: https://e-cigarettes.surgeongeneral.gov/
4. Teen Health; https://kidshealth.org/en/teens/e-cigarettes.html

## Health Impacts of E-Cigarette Use

E-cigarettes are a relatively new product and have not been reviewed by the Food and Drug Administration to determine their impact on lung health. However, in January 2018, the National Academies of Science, Engineering and Medicine released a consensus study from over 800 different studies that made one conclusion clear: due to the harmful nature of many chemicals involved with e-cigarette use, using e-cigarettes causes health risks.

**Nicotine**: Nicotine is a very addictive stimulant drug. A single vape pod can contain anywhere from 1 to 2 packs of cigarettes worth of nicotine. As a stimulant, nicotine plays a significant role in the development of hypertension (high blood pressure) which can lead to more advanced cardiovascular disease (#1 cause of death in the U.S.).

Research has also shown that nicotine use during adolescence can increase the risk of developing psychiatric disorders and cognitive impairment later in life. Nicotine mostly affects the areas of the brain responsible for attention, memory, learning, and brain plasticity - all of which is still developing well into young adulthood.

**Propylene glycol**: Propylene glycol is a substance that is commonly used as a food additive that has been declared generally safe for use in foods by U.S. and European food authorities. However, high doses of propylene glycol have been shown to cause hypertension, cardiovascular disease, seizures, and neurological symptoms.

**Formaldehyde**: In 1987, the U.S. Environmental Protection Agency (EPA) classified formaldehyde as a probable human carcinogen (cancer-causing agent). Since that time, studies have suggested that exposure to formaldehyde is associated with myeloid leukemia in humans.

**Acrolein**: Acrolein is a common herbicide ingredient found in weed-killers. It is a known upper respiratory tract and eye irritant. Low doses of acrolein can lead to severe respiratory complications while large doses can be lethal.

**Diacetyl**: Diacetyl is a buttery-flavored chemical originally found in microwavable popcorn. It was removed from popcorn products when workers in microwavable popcorn factories began to develop the respiratory disease bronchiolitis obliterans, also known as "popcorn lung", due to breathing in diacetyl fumes. Bronchiolitis obliterans causes fibrosis, or scarring, of the air sacs in the lungs which leads to narrowing of the airways. Symptoms of the disease are similar to chronic-obstructive pulmonary disease (COPD). Despite being removed from microwavable popcorn, diacetyl is still an ingredient found in most vape pods.

**Benzene**: Benzene is a volatile organic compound widely used in the U.S. to make plastics, resins, nylon and synthetic fibers, lubricants, dyes, detergents, and pesticides and can also be found in car exhaust. The Dept. of Health and Human Services has determined that long-term exposure to benzene in the air can cause leukemia in humans.

**Ultrafine Particles**: Using e-cigarettes exposes the user to ultrafine particles that can be inhaled deep into the lungs. A new study by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) has shown a correlation between long-term exposure to ultrafine particle air pollution and death from cardiovascular disease, possible COPD, and effects on emotional behavior, learning capability, and neurotransmission.

1. Acrolein - World Health Organization. https://www.who.int/ipcs/publications/cicad/en/cicad43.pdf
2. Formaldehyde and Cancer Risk. https://www.cancer.gov/about-cancer/causes-prevention/risk/substances/formaldehyde/formaldehde-fact-sheet
3. From E-Cigs to Tobacco: Here's How Nicotine Affects the Body. https://www.healthline.com/health-news/heres-how-nicotine-affects-the-body#1
4. NAM Report- https://www.nap.edu/resource/24952/012318ecigaretteConclusionsbyEvidence.pdf
5. Popcorn Lung: A Dangerous Risk of Flavored E-Cigarettes. https://www.lung.org/blog/popcorn-lung-risk-ecigs
6. Propylene Glycol in Food: Is This Additive Safe? https://www.healthline.com/nutrition/propylene-glycol
7. Study Finds Long-term Exposure to Ultrafine Particle Air Pollution Associated With Death From Heart Disease. https://oehha.ca.gov/air/press-release/press-release-air/study-finds-long-term-exposure-ultrafine-particle-air-pollution

## E-Cigarettes & Marijuana Use

E-cigarettes are sometimes used for delivery of marijuana and other illicit drugs. Vaping cannabis products is more popular among teens and young adults in part because many believe that it is a healthier alternative to smoking. Some marijuana users prefer the e-cigarette due to the fact that it is smokeless, odorless, and much easier to conceal. Vaping marijuana, however, presents several health risks. Marijuana concentrates, also known as 710 or CBD oil, is a highly potent THC-concentrated mass that looks like honey or butter. These concentrates contain extraordinarily high THC levels ranging from 40 to 80 percent THC (up to 4 times the amount found in high grade marijuana which normally contains about 20 percent THC). The increased THC level found in marijuana concentrates can produce stronger psychoactive effects and can lead to greater risk of paranoia, anxiety, panic attacks, and hallucinations in addition to increases in heart rate and blood pressure.

In addition to the harmful effects of THC, vaping itself can be potentially damaging to the body. Vape fluids use a wide range of ingredients to suspend THC or CBD in order to create the vapor-like aerosol - all of which can be damaging to the lungs. In 2019, several cases of severe lung disease linked to vaping began popping up throughout the U.S. totalling more than 2,300 by November. Everyone who got sick reported a history of vaping with most of those affected reporting using vaping products that contained THC. The majority of the cases were linked to bootleg products containing THC, many of which were bought online. Health officials aren't certain what specific compound caused the lung damage but the evidence suggests that vitamin E acetate may be to blame. As a result, the Centers for Disease Control (CDC) issued a recommendation that people avoid vaping THC products, especially with bootleg or modified vaping devices.

1. Correll, Robyn MPH. Vaporizers Are Not a Safe Way to Smoke Marijuana. https://www.verywellhealth.com/are-vaporizers-the-safest-way-to-smoke-weed-1124089
2. The Facts About Marijuana Concentrates. https://www.justthinktwice.gov/facts-about-marijuana-concentrates

## Top 5 Reasons for Vaping (among middle & high school students)

1. Use by a friend or family member. This reason had the highest response (39%) in a survey conducted by the National Youth Tobacco Survey.

2. They are available in flavors such as mint, candy, fruit, or chocolate. 31% of responders named this as their main reason for vaping.

3. Belief that they are less harmful than other forms of tobacco. 17% chose this as their top reason.

4. To try to quit using tobacco products such as cigarettes.
5. They can be used in areas where other tobacco products, such as cigarettes, are not allowed.

1. Tsai, J, Walton, K, Coleman, BN, et al. Reasons for Electronic Cigarette Use Among Middle and High School Students - National Youth Tobacco Survey, United States, 2016. MMWR Morb Mortal Wkly Rep 2018;67:196-200. DOI: http://dx.doi.org/10.15585/mmwr.mm6706a5

## 10 Surprising Facts About E-Cigarettes

1. E-cigarettes and other vaping devices are NOT risk-free.
   - It's generally agreed that e-cigarettes are less harmful than combustible cigarettes, however, recent research indicates that their use can lead to negative health consequences.

2. E-cigarettes contain nicotine, a highly addictive drug with known health risks.
   - Using nicotine, regardless of how it is delivered, increases the risk of addiction - and nicotine addiction is extremely difficult to reverse.

3. Using e-cigarettes is not a proven method for quitting smoking.
   - There is little evidence that e-cigarette use is an effective means to reduce cigarette smoking. The increased amount of nicotine in e-cigarette may actually make it even more difficult to quit smoking.

4. E-cigarettes are not used exclusively by people trying to quit smoking.
   - These devices are becoming increasingly popular with teenagers, including those that had never smoked cigarettes before.

5. E-cigarettes and other vaping devices are frequently used in addition to smoked cigarettes, rather than in place of them.
   - Many smokers use these products in addition to traditional cigarettes - especially at times and in places where smoking is not allowed. This increases their total exposure to nicotine and the harmful effects of other chemicals.

6. Nicotine can affect brain development and functioning in young people.
   - Numerous studies have shown a correlation to adolescent nicotine use and the disruption of brain development, interference of long-term cognitive functioning, and the risk of various mental disorders. The adolescent brain is also more vulnerable to the effects of addictive substances than a fully developed brain.

7. E-cigarettes are not FDA approved.
   - Until recently, manufacturers of e-cigarettes were not bound by FDA safety standards in place for traditional tobacco products and have not been FDA approved. E-cigarette manufacturers are free to project a risk-free image in their advertisements.

8. There is little consistency across different vaping products.
   - Due to limited federal oversight, there is considerable variation in the nature and concentration of ingredients across products which makes it difficult to assess the dangers of any specific product.

9. There is no evidence that the aerosol from e-cigarettes is safe.
   - There are growing concerns over the long-term health effects but, due to the newness of these devices, no long-term studies have been conducted.

10. The spread of e-cigarettes and other devices may be re-normalizing smoking behavior.

1. Richter, L PhD. 10 Surprising Facts About E-Cigarettes - Center on Addiction, 2018.
   https://www.centeronaddiction.org/e-cigarettes/about-e-cigarettes/10-surprising-facts-about-e-cigarettes

**Vaping & the Economy**

By 2017, vape company Juul had captured 75% of the e-cigarette market after just three years in existence.  The company was averaging $1.5 billion dollars of revenue and had positioned itself as a major enemy to the Big Tobacco companies.  In December of 2018, the Altria group (parent company of Marlboro cigarettes) invested $12.8 billion in Juul to seize control of 35% of the company.  At that time, Juul was valued at $38 billion.  As part of the deal, Altria agreed to give Juul top-shelf marketing space allowing Juul pods to be displayed alongside Marlboro cigarettes in stores and gas stations throughout the U.S.

Soon after Altria group's stock purchase of Juul, public health officials including FDA Commissioner Scott Gottlieb and U.S. Surgeon General Jerome Adams called youth e-cigarette use an epidemic and targeted Juul for most of the blame due to its marketing efforts aimed at teens.  Juul began facing some of the same regulatory and financial pressures that Big Tobacco companies had been subjected to for decades.  The resulting regulatory pressures have led to slumping sales and vape bans in some states.  In January 2020, Altria group reported a net loss of $1.8 billion for the fourth quarter of 2019.  Juul's total value is now estimated to be around $12 billion which is $800 million less than what Altria spent in purchasing just 35% of the company only one year ago.

1.  LaVito, A. Tobacco Giant Altria Takes 35% Stake in Juul, Valuing E-cigarette Company at $38 Billion. Dec. 20, 2018.
    https://www.cnbc.com/2018/12/20/altria-takes-stake-in-juul-a-pivotal-moment-for-the-e-cigarette-maker.html
2.  Linnane, C. Altria Stock Slammed as Juul Stake Leads to Another Multi-billion Charge. Jan. 31, 2020.
    https://www.marketwatch.com/story/altria-stock-slammed-as-juul-stake-leads-to-another-multi-billion-charge-2020-01-30

**Answer the following questions using the dangers of e-cigarette use/vaping notes.**

1.  What is currently the most popular e-cigarette among teens?

    ⬜ A. blue          ⬜ B. Juul          ⬜ C. MarkTen          ⬜ D. VUSE

2.  Which statement is NOT true?

    ⬜ A. E-cigarettes have been tested & approved by the FDA.
    B. More than half of all adult e-cigarette users continue to use regular cigarettes.          ⬜
    C. There is little consistency in the nature of ingredients across different vape products.
    ⬜ D. Using e-cigarettes is not a proven method for quitting tobacco use.

3.  A single vape pod can contain the amount of nicotine equivalent to:

    ⬜ A. 1 to 2 cigarettes                    ⬜ C. 1-2 packs of cigarettes
    B. half a pack of cigarettes              ⬜ D. 3-4 packs of cigarettes

4. What is the number one reason for vaping given by middle and high school students?

   ☐ A. belief that they are less harmful than combustible cigarettes
   B. they are offered in a variety of flavors
   C. they are easier to conceal
   D. use by a friend or family member


5. Using an e-cigarette to vape marijuana concentrates is especially dangerous because:

   ☐ A. it exposes the user to extremely high levels of THC.
   B. it can produce stronger psychoactive effects.
   ☐ C. it can cause increases in heart rate & blood pressure.
   D. all of the above are correct.

6. What were e-cigarettes originally marketed as a replacement for?


7. Use the two graphs titled "PERCENTAGE OF STUDENTS WHO REPORTED USING CIGARETTES OR E-CIGARETTES" to compare and contrast cigarette and e-cigarette use among both middle and high school students.

   In which population of students is e-cigarette use higher? Why do you think that is the case?




   What happened to the percentage of high school students using e-cigarettes from 2011 to 2019? Compare that change to the trend of cigarette use for high school students during the same time period.


   What happened to the percentage of middle school students using e-cigarettes from 2011 to 2019? Compare that change to the trend of cigarette use for middle school students during the same time period.




8. How does nicotine exposure affect the developing adolescent brain?


9. How does overexposure to propylene glycol affect the human body?

10. What are some of the harmful effects caused by overexposure to formaldehyde?

11. What serious health problems can be attributed to overexposure to acrolein?

12. What effect does diacetyl have on the lungs?

13. What health problems can be caused by exposure to benzene?

14. How do ultrafine particles produced by e-cigarettes affect the human body?

15. Why do you believe the tobacco giant Altria spent $12.8 billion in 2018 to buy a 35% share of the e-cigarette company Juul?

# PE NTI ACTIVITY DAYS 31-35

# You will need the following information to complete today's activity!

## Healthy Fitness Zone

This Healthy Fitness Zone® indicates that the student is considered to be fit enough for good overall health. Most students who are regularly active should be able to score within or above the Healthy Fitness Zone on most FitnessGram assessments.

## Needs Improvement

This zone indicates a potential for future health risks if fitness doesn't improve. Increased activity as well as eating a healthy, controlled diet could delay or reverse this potential risk. Students in the Needs Improvement Zone will see messaging on their FitnessGram Student Reports explaining how they can move into the Healthy Fitness Zone.

## Health Risk

The Health Risk zone suggests that the student has a probability for future health problems if they don't improve their physical fitness. The need for increased activity and eating a healthy diet is more urgent for students in this category than those in the Needs Improvement Zone.

DIRECTIONS: After reviewing the information above as well as the chart on the next page, you will choose one of the Fitnessgram tests to complete today! In order to complete the Pacer test you must have access to the internet to play the test on you tube at the following link:
https://www.youtube.com/watch?v=8_iQKh86wnw
Please note, it is the 15 METER PACER test, not 20. This means you will also need to be able to mark this distance in your yard in order to complete this test at home. **_DO NOT DO THIS IN THE ROAD_**.

The curl up test is similar to the situp test, but hands are straight down at your sides and you do not come all the way up (it feels more like a crunch). Feet stay flat on the floor with a bend at the knee and the head

touches the ground after each repetition. At a consistent pace, count how many you complete without breaking form. A video demonstration can be found here: https://youtu.be/e6D6uRIfK7M

The pushup test is not timed but rather gauges how many pushups you can complete in a row (no stopping or breaks!) while using proper form! https://youtu.be/KIcU-Qaf0Bg

The sit and reach test tests flexibility by gauging how far you can reach while in a pike position with knees flat to the ground and arms/hands even with one another. A video on how to create a sit and reach box at home can be found here: https://youtu.be/JMy096RH9Gc It shows an actual cardboard box and ruler being used, but you can also use tape on the floor and a measuring tape as well!

You may notice the healthy fitness zones on the charts on the next pages reflect lower numbers than what you may be used to. They encourage exact correct form on each repetition or the test is over!

# FITNESSGRAM Performance Standards

# Males

## Healthy Fitness Zones (HFZ)

### Cardiorespiratory Endurance

| Age | 15m PACER Laps | Aerobic Capacity (VO2 Max) |
|-----|----------------|----------------------------|
| 10  | 21             | 40.2                       |
| 11  | 25             | 40.2                       |
| 12  | 30             | 40.3                       |
| 13  | 38             | 41.1                       |

### Muscular Strength, Muscular Endurance, and Flexibility

| Age | Curl-Ups # completed | Push-Ups # completed | Back-Saver Sit & Reach |
|-----|----------------------|----------------------|------------------------|
| 5   | ≥ 2                  | ≥ 3                  | 8 in                   |
| 6   | ≥ 2                  | ≥ 3                  | 8 in                   |
| 7   | ≥ 4                  | ≥ 4                  | 8 in                   |
| 8   | ≥ 6                  | ≥ 5                  | 8 in                   |
| 9   | ≥ 9                  | ≥ 6                  | 8 in                   |
| 10  | ≥ 12                 | ≥ 7                  | 8 in                   |
| 11  | ≥ 15                 | ≥ 8                  | 8 in                   |
| 12  | ≥ 18                 | ≥ 10                 | 8 in                   |
| 13  | ≥ 21                 | ≥ 12                 | 8 in                   |

# FITNESSGRAM Performance Standards

# Females

## Healthy Fitness Zones (HFZ)

### Cardiorespiratory Endurance

| Age | 15m PACER Laps | Aerobic Capacity (VO2 Max) |
|---|---|---|
| 10 | 21 | 40.2 |
| 11 | 25 | 40.2 |
| 12 | 30 | 40.1 |
| 13 | 32 | 39.7 |

## Muscular Strength, Muscular Endurance, and Flexibility

| Age | Curl-Ups # completed | Push-Ups # completed | Back-Saver Sit & Reach |
|---|---|---|---|
| 5 | $\geq 2$ | $\geq 3$ | 9 in |
| 6 | $\geq 2$ | $\geq 3$ | 9 in |
| 7 | $\geq 4$ | $\geq 4$ | 9 in |
| 8 | $\geq 6$ | $\geq 5$ | 9 in |
| 9 | $\geq 9$ | $\geq 6$ | 9 in |
| 10 | $\geq 12$ | $\geq 7$ | 9 in |
| 11 | $\geq 15$ | $\geq 7$ | 10 in |
| 12 | $\geq 18$ | $\geq 7$ | 10 in |
| 13 | $\geq 18$ | $\geq 7$ | 10 in |

Portfolio Foal Setting and Reflection Page

Name:_____ Date:_____

What Fitnessgram Assessment will you be working on today? (Check one)

Push up ☐                              Curl Up ☐

Sit and Reach ☐                      15M Pacer test ☐

What is your benchmark score? (This is the score you SHOULD based on your age and gender found on the previous charts)

_____ Laps, reps, or inches


What is your goal score in order to approach the healthy fitness zone and beyond? (This is the score you WANT to reach based on individual ability level)

_____ Laps, reps, or inches

What activities could you do in order to achieve this goal or improve your performance further?

_____

_____

_____

What was your score? _____ laps, reps, or inches

How do you feel about having achieved your goal or if you did not reach it when will you try again?

_____

_____

If you did not achieve your goal, why do you think this happened?

_____

_____

_____

# Forms of Art - Symbolism
## by ReadWorks



**Directions: Read the passage then answer the questions.**

In the 1800s, a lot writing in France had the same structure and patterns. Some writers responded by starting a movement called Symbolism. These writers were also responding to the way that the people around them thought. A lot of the people around them thought that logic and reason were important.

People in the Symbolist movement thought that feelings were also important. The movement spread to countries outside of France. It spread to countries in Europe and North America as well. It had an effect on a lot of artists. Some of them were painters.

Lots of painters were angry and frustrated. They were frustrated with art that tried to copy the world around it. Symbolist painters wanted art to show their thoughts and feelings instead. They did not paint what they saw around them. Instead they painted images that were

symbols, or signs. The images showed what the painters thought and felt.

Look at the picture that is included with this article. It is a painting called *The Scream*. It is a prime example of Symbolism. It shows how the artist who painted it felt. It shows that he was frustrated.

Symbolist painters used line and color in new ways. Some of the painters also made the people in their paintings look strange. Doing these things helped the artists show their feelings in their paintings.

# Additional Information

This resource video may also be useful to watch to help you better understand the work of art The Scream by Edvard Munch. If you have access to the internet follow the link below to watch the short video.

https://youtu.be/aUclH6P_hik

If you prefer to complete this entire assignment online you may do so by going to Mrs. Pulliam's NTI google classroom. Just sign in to your google classroom account using your school email. Next use this code to join this classroom: vxv5b47 You will find art NTI lessons 11-35 here. For this assignment open lesson NTI lesson 31-35 & follow the directions.

ADDITIONAL WAYS TO FIND MORE RESOURCES FROM MRS. PULLIAM:
**RESOURCES AND HOW TO CONNECT:**
- REMIND-https://www.remind.com/join/bbkk38
- ARTSONIA-Access Code: NBZW-YBSB
- NTI-GOOGLE CLASSROOM CODE-vxv5b47
- FACEBOOK-https://www.facebook.com/debbie.pulliam.37
- MRS. PULLIAM'S WEBSITE-https://sites.google.com/harrison.kyschools.us/hcmsart/home

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

**1.** Which painting does the text state is a prime example of Symbolism?

    A. Edvard Munch's *Melancholy*

    B. Edvard Munch's *The Scream*

    C. René Magritte's *The Son of Man*

    D. Edgar Degas's *Dancing Class*

**2.** What does the text describe?

    A. Edvard Munch's personal life

    B. how the Symbolist movement differed from other artistic movements

    C. how Symbolist painters expressed their feelings and thoughts in their paintings

    D. the difference between Symbolist painters of the past and modern Symbolist painters

**3.** Read the following sentences from the text:

"Many painters were feeling frustrated with creating art to mimic reality. Instead of painting exactly what they saw, Symbolist painters felt their paintings should be a visual outlet for their inner feelings and thoughts. To do this, they often painted mystical or loosely defined images as symbolic imagery to express themselves."

Based on this information, how can Symbolist paintings best be described?

    A. They represent a certain idea or belief.

    B. They accurately depict reality.

    C. They only show humans expressing a certain emotion.

    D. They show images unfamiliar to most people.

**4.** Why does the author explain what kinds of images Symbolist painters painted?

    A. to compare Symbolist art to Symbolist literature

    B. to show how Symbolist art changes as it spread throughout Europe and North America

    C. to explain why some people are confused by Symbolist art

    D. to highlight the fact that Symbolist painters wanted to express themselves as opposed to mimic reality

**5.** What is the main idea of this text?

    A. Edvard Munch's *The Scream* shows us how frustrated the artist is on the inside.

    B. Symbolism became a way for artists to express their inner thoughts and feelings.

    C. The Symbolist movement started with French writers in response to the rigid structure of writing.

    D. French writers responded to society's age of reason and value of material things with the Symbolist movement.

**6.** Describe Edvard Munch's painting *The Scream* using at least three details to support your answer.

_____

_____

_____

**7.** Explain why Edvard Munch's painting *The Scream* is a good example of Symbolism. Use evidence from both the painting and the text to support your answer.

_____

_____

_____

_____

**8.** Choose the word or phrase that best completes the sentence.

Symbolist painters felt their paintings should be a visual outlet for their inner feelings and thoughts. _____, they often painted mystical or loosely defined images as symbolic imagery to express themselves.

    A. However

    B. Namely

    C. Otherwise

    D. As a result

# Agriculture and Society

What Is Agriculture and How Does It Affects Us All?

*MSAGED8-1: Students will identify why agriculture is important and describe some things it provides us with*

All in One Lessons from One Less Thing

---

# Agriculture is a Science

- Science is defined as the study of natural occurrences.
- **Agriculture is the science and management of those natural occurrences that produce food, fiber, and natural resources.**
- Agriculture includes the growing, managing, and harvesting of plants and animals for use by people.
- It is made up of lots of different businesses and together they are the agriculture industry.

---

# Advantages of American Agriculture

- The Americas have an ideal climate for growing crops/raising animals.
- There are nutrient rich soils there.
- The developed transportation system allows for easy movement of plants/animals.
- There has been a lot of technologies and inventions developed that help make agricultural tasks easier.

*The success and wealth of the United States can be connected to the strength of our agriculture industry.*

---

# A Better Product at a Lower Cost

- American people have cheaper and safer food than many other people around the globe.
- Americans spend **only about 9.7%** of their yearly income for food.
- In other countries, people can spend **up to 50%** of their annual income on food alone.

---

# Got Food?
# Thank a Farmer

- Currently, one American farmer produces enough food to feed **over 160 people**. (In the 1930s, they could only feed around 4.)
- Since American farmers can efficiently feed so many people, other citizens are able to work in many different jobs.
- If farmers were not able to produce large amounts of food, everyone would be responsible for growing or gathering their own food.

---

# Plants and Their Many Uses

1. **Food:** Plants are our main source of food and processed ingredients for us and for the animals we eat and use.
2. **Fiber:** Plant fibers (cotton, wood, etc.) are used for clothing and other products (such as paper and packaging).
3. **Shelter:** Most of the trees harvested for wood have been planted and maintained by tree farmers.
4. **Medicine:** Many plants are used in the manufacturing of medicine; for example the heart drug Digitalis is made from Foxglove plants

## Everyday Uses for Animals

1.Food: Most of the animals produced in the U.S. are raised for food.

2.Clothing: Hides are used for leather and the wool from sheep and goats is spun into yarn.

3.Household Items: Most are made from animal by-products. These include items used to make things like detergents, candles and even plastics.

4.Medicine and Research: Animals and animal by-products are used in the manufacture of medicines and new remedies are developed through research.

## Food Products From Animals

• Beef cattle: steaks, hamburger, roasts, and other meat products

• Dairy cattle: fluid milk for drinking and the production of cheese, butter, yogurt, ice cream, and other dairy products

• Pigs: meat (pork) such as ham, sausage, bacon, ribs, and pork chops.

• Poultry (birds) Industry: meat and eggs from chickens, turkeys, ducks, and other poultry animals

• Sheep and Goats: meat and milk (The meat from sheep is called lamb or mutton.)

• Aquaculture: fish, shellfish, and other aquatic animals are grown on farms

## Medicines From Animals

• Insulin for diabetics is made from a chemical produced by the pancreas in swine (pigs) and cattle animals.

• Pig skin is used in skin grafts for burn victims to help repair the damage from the burns.

• Milk proteins help make bandaids stick.

• Research is also being performed on transplants of organs like the heart from pigs to humans.

## Overall Agriculture is a Global Market Place

Some of the commodities (goods) previously discussed are shipped to other countries for their use. We then may receive other items from them in return that we do not have here.

• A commodity is a raw material or primary agricultural product that can be bought and sold.

• An export is a commodity that is grown in the United States and shipped to another country.

• An import is a commodity that is purchased from another country and shipped to the United States.

# Ag and Society Guided Notes

Name _____  Class _____  Date _____

1. Agriculture is a...

   _____

2. Name two reasons America has an advantage in agriculture.

   _____

   _____

3. Americans spend _____ of their yearly income on food which is much less than people in other countries.

   _____

4. One American farmer can feed _____ people.

   _____

5. The four main uses of plants are...

   _____

   _____

   _____

   _____

6. What else are plant fibers used for besides clothing?

   _____

7. Two other everyday uses for animals other than food and clothing are...

   _____

8. Meat from sheep is called lamb or _____.

   _____

9. What is the term for farming aquatic animals?

   _____

10. A raw material or product that can be bought and sold is a...

    _____

11. A product or material shipped out of the country is an...

    _____

12. A product or material brought into the country is an...

    _____