

Name \_\_\_\_\_

Date \_\_\_\_\_

Teacher \_\_\_\_\_

Campus \_\_\_\_\_

# 8<sup>th</sup> GRADE

*Week Three*

*April 13<sup>th</sup>-17<sup>th</sup>*

Mount Pleasant ISD



**ENGLISH**

**Week 3: April 13-April 17, 2020**

**Directions: Read the following passage and answer the questions that follow.**

**Courage in a Time of Terror**

By Kristin Lewis

The train barreled through the bitterly cold autumn air. Max Diamant, 27, did not know exactly where the train was carrying him, but he was certain the journey would end with his death.

It was November 1942 in the country of Poland, and World War II was raging across Europe. Earlier that day, a group of Nazis had forced Max and dozens of other Jewish men, women, and children onto the train at gunpoint. The Nazis didn't tell them the train was going to a death camp, but Max had his suspicions. He knew what the Nazis were capable of.

As Max saw it, he had two options: Die at the hands of the Nazis or jump from the speeding train.

He made his choice.

With a pair of pliers he'd hidden in his pocket, Max began feverishly cutting the barbed wire that covered one of the windows. When he'd made a hole large enough, he wiggled through.

For a terrifying moment, Max clung to the side of the train with one hand. Wind whipped his hair and clothes. The clanging of the wheels on the metal tracks rang in his ears.

And then—

He let go.



Meanwhile, miles away in the city of Przemyśl [puh-SHEM-ish-le], 16-year-old Stefania Podgórska was also gripped by fear. She had no idea that her friend Max had been taken—or that his life was in imminent danger. What she did know was that most of her own family was gone, that her food and money were nearly **depleted**, and that it was up to her to keep herself and her 7-year-old sister Helena alive in a war-torn city.

But Stefania would do more than protect her sister. She was about to become a lifeline for Max and 12 other Jewish people. She was about to risk everything to save them all.

**Fear in the Air**

Stefania was born in 1925 in a small village in Poland. She grew up on a farm; as a young girl, she longed to live in a big city. After Stefania's father passed away in 1938, her mother gave her permission to move to the nearby city of Przemyśl, with her older sisters.

To Stefania, life in Przemyśl was more thrilling than she could have imagined. She loved the cobblestone streets, the cafés that served gooey pastries, the shops that sold fancy dresses. She loved the energy of city life, far from the noisy chickens on the farm back home.

Stefania soon got a job in a grocery store owned by a kindhearted woman named Mrs. Lea Diamant. It was there that Stefania first met Max, one of Mrs. Diamant's sons. Max, then 23, was studying to become a dentist.

Max's parents treated "Fusia," as they affectionately called Stefania, like part of the family. She ate dinner with them often and sometimes stayed in their cozy apartment.

Like most Polish people at that time, Stefania was Catholic. The Diamants were Jewish. No doubt Stefania picked up new words in Yiddish, a language spoken by Jews in Europe. Over time, she probably learned that *chutzpah* means courage and that to *kvell* is to practically faint with pride. She likely knew to say yes when Mrs. Diamant offered her a *bissel* more cake.

But even in the cheerful warmth of the Diamants' home, fear was in the air.

As Jews, the Diamants were part of a minority in Poland. Like people of all religions and cultures, Jewish people had their own unique rituals. For example, they worshipped in synagogues on Saturdays, not in churches on Sundays as Christians did. Many non-Jewish people viewed such differences with mistrust and intolerance.

For centuries, antisemitism—that is, prejudice against Jewish people—had smoldered in Poland and across Europe. Soon it would explode into an inferno of violence and death that nobody could have imagined.

### **Hitler's Vicious Lies**

Next door to Poland was the country of Germany. And every day, it was becoming more dangerous for Jewish people.

In 1933, when Stefania was still a young girl living on the farm, Adolf Hitler became Germany's leader. At the time, Germany was still suffering from a humiliating defeat in World War I, which had ended in 1918. In the years since, the German people had endured growing poverty, unemployment, and hunger.

Hitler and his Nazi Party gave Germans someone to blame for these hardships: Jewish people. In hateful speeches, Hitler called Jewish people "pests" and "vermin" and "a virus," saying they were not human. His vicious lies stirred up old prejudices.

By 1938, when Stefania was working for the Diamants, life in Germany had grown unbearable for Jewish people. Nazi laws had stripped them of their rights and dignity. Violent attacks had become common. Many feared far worse was coming.

In 1939, Hitler and his armies began invading the countries of Europe, igniting World War II. One by one, Poland and other countries fell to the Nazis. By the time Max leapt from that speeding train in 1942, Germany controlled much of Europe.

## **Like a Prison**

When the Nazis took control of Przemyśl, life for Max and his family changed overnight. In Poland, as in all Nazi-occupied countries, Jewish people were cast out from society. They were fired from their jobs, their possessions stolen. They were banned from schools, stores, and parks. They were even banned from sidewalks and made to walk in the gutters.

Stefania watched helplessly as the Diamants—and all the Jewish people in Przemyśl—were ordered to move into a restricted area of the city called a ghetto. The ghetto was like a prison, surrounded by a wall and patrolled by armed guards. No one was allowed to leave except to do forced labor. Max was forced to shovel coal for 12 hours a day, with little more than dirty water to drink and moldy bread or wormy cabbage to eat.

In the ghetto, people were starving. Diseases spread quickly. Max and his family grew increasingly sick, their clothes hanging from their thinning bodies, their faces turning gaunt.

Stefania worried constantly about the Diamants. She began smuggling food and supplies to them through a hole in the ghetto fence—eggs, bread, anything she could get her hands on. She traded her finest clothes for food and became adept at sneaking past guards with rifles.

Of course she knew the risks; the penalty for helping a Jewish person was death. She did it anyway.

## **The Death Camps**

By 1942, Stefania was the only member of her family still in Przemyśl. Her older sisters had moved away and other members of her family had been forced to go to Germany to work. Stefania brought her young sister Helena to live with her in Przemyśl.

Meanwhile, the Nazis were emptying the ghetto. Every day, more and more people were put on trains bound for death camps or forced-labor camps. The Nazis had a dehumanizing term for this: “liquidation.”

Although Stefania and Max may not have fully understood this at the time, the ghettos were part of a Nazi plan to murder every Jewish person in Europe. It’s estimated that 6 million Jews were murdered in Nazi death camps. Some 2 million other people were also killed, including communists, homosexuals, people with disabilities, and the Romani (known then as gypsies).

History would remember this genocide as the Holocaust.

Max’s entire family, aside from his younger brother, was murdered by the Nazis. Then, in November 1942, the Nazis came for Max.

And that is how he found himself leaping from a speeding train.

## Supporters and Spies

Max landed in the hard snow and tumbled into a pole. But he was lucky: A loaf of bread he'd managed to hide in his shirt softened the blow and likely saved his life.

But where was he supposed to go? The Nazis were in control for hundreds of miles in every direction. Their supporters and spies were everywhere. Keeping to the shadows and desperately hoping he wouldn't get caught, Max stumbled through the snow.

About two days later, Stefania and Helena were trying to sleep when suddenly, there was a knock at the door. The sound filled Stefania with fear. Only the Gestapo—the dreaded Nazi secret police—knocked on doors in the middle of the night.

Had they come for her at last?

When Stefania opened the door, there stood not the Gestapo, but Max—badly injured and bleeding, his clothes filthy and torn.

*Only one night, please let me stay*, he asked, knowing that every moment he lingered in the apartment, he put the sisters in danger. Stefania and Helena gave him what little food and medicine they had, cleaned him up as best they could, and put him to bed.

## A Daring Plan

As Max recovered, Stefania decided that he would stay with them. But it was dangerous. There were many **prying** eyes. Every time someone came to the door, Max scrambled to hide under the bed.

Then Max had an idea: Why not find a bigger apartment where he and others still trapped in the ghetto could hide?

Stefania agreed. She found a cottage on a street named Tatarska. It had no electricity or running water, only an outhouse for going to the bathroom and a well for water. It had two rooms plus a kitchen and an attic. And it would have to do.

With Helena's help, Stefania spent three days cleaning the cottage and getting it ready. Max was the first to move in. Later they were joined by Max's brother Henek and Henek's fiancée, Danuta. Eventually, there were 10 adults and three children hiding in the cottage on Tatarska Street.

## Tiny Attic

For the next two years, while Stefania and Helena lived downstairs, the group lived in the tiny attic above, as quietly as they could. They went to the bathroom in a bucket that Helena emptied into the outhouse at night. Max built a false wall in the attic to hide behind when needed.

It was up to Stefania to feed everyone. She got a job in a factory and used her earnings, along with whatever she could trade, to buy food. When shop owners grew suspicious of how much food she bought, she alternated the stores she went to, or sent Helena, who was too young to arouse suspicion.

Stefania was exhausted all the time. But she pressed on.

During those long years, there were many close calls. The worst was when an officer showed up and told Stefania he was seizing the cottage for army nurses, who were coming to work in the German hospital across the street. Stefania had two hours to leave, he said, or she'd be shot.

Max and the others begged Stefania to take Helena and flee—to save herself. But she refused to abandon them and prayed for help instead. At the last moment, the officer changed his mind and allowed Stefania to stay, as long as two German nurses could move into one of the rooms.

And so for six months, the nurses lived downstairs with Stefania and Helena, while Max and the others lived in the attic—one sneeze, one stumble, one creaky floorboard away from being caught. Max would stay awake at night, gently waking anyone who snored.

### **A New Beginning**

In 1945, Germany was at last defeated by the Allied forces of the United States, Great Britain, Canada, and Russia. World War II soon came to an end. Hundreds of cities and towns were in ruins. In addition to the millions of victims of the Holocaust, it's estimated that some 80 million men, women, and children were killed in bombings, in combat, and by disease.

Every Jewish person Stefania sheltered during those long and difficult years had survived. But that wasn't the end of the story for Stefania and Max. It was the beginning of a new one.

After the war, the two got married. They looked after Helena until she went to college. Eventually, they immigrated to the U.S., where Max had a successful career as a dentist. They had two children. Helena became a doctor and settled in Poland.

In 1979, Stefania and Helena were named "Righteous Among Nations," by Yad Vashem, the World Holocaust Remembrance Center. This great honor recognizes those who helped Jewish people during the Holocaust.

The rest of Stefania's family survived the war, but they never accepted Stefania's marriage to a Jewish person, and they disowned her and Helena for harboring Jewish people during the war. Tragically, even after the Holocaust, antisemitism continued to fester in Poland and other countries.

Max passed away in 2003 and Stefania passed away in 2018.

During Stefania's life, she was interviewed many times about what she did as a teenager. She never expressed regret for the extraordinary risks she took.

What Stefania did say was that given the choice, she would do it all again.



1. Using context clues, what does the bolded word “depleted” mean in “Courage in a Time of Terror?”

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2. Using context clues, what does the bolded word “prying” mean in “Courage in a Time of Terror?”

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3. In the first eight paragraphs of the selection, the author organizes the paragraphs using description. What is the author describing in those paragraphs?

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4. Which text structure does the author use in the section “A Daring Plan”? Explain how you know using text evidence.

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5. The cottage on Tatarska Stree is being turned into a museum to honor Stefania and Helena. Write a short speech to be given on the day the museum opens.

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**MATH**

## 8<sup>th</sup> Grade Math Department

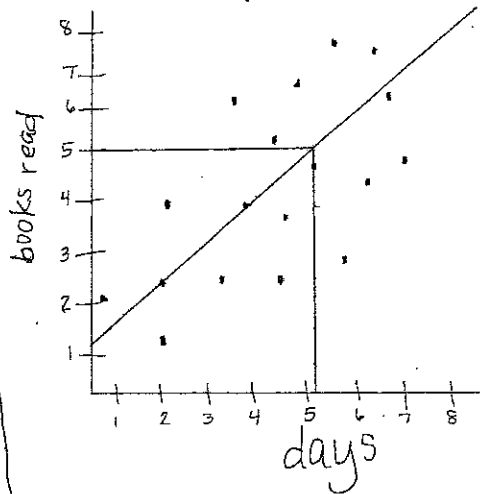
### Category 4 Review:

- Students, over the next weeks you will each be reviewing material already learned. In each packet, you will be given instruction, examples, and practice problems.
- For those of you wondering about a calculator. If you have a phone or tablet there is a good app you may download called (Calculator X). This is the closest app we have found to our classroom calculators.
- Category 4 Review will focus on financial literacy, interpreting data, and mean absolute deviation.
- If you will be working online the following assignments will be available to you through google classroom.
- Login information for Google Classroom is as follows:
  - Username: first.last@stu.mpisd.net
  - Password: 8 digit birthdate followed by mpd
- Example: John.smith@stu.mpisd.net, 05041992mpd

## Mean Abs. Dev.

- ① Find the mean of the data: add all together, divide by how many there are.
- ② Find the absolute value of the difference between each data value and the mean
- ③ Find the mean of the differences from step 2.

## Trend Lines (Line of Best Fit)



Use a line of best fit to predict how many days it will take to read 5 books

5.2

## Simple Interest

$$I = PRT$$

Roberto borrowed \$438 from his friend Aaron. Aaron told him that he could pay him back anytime, but he was going to charge him a 3.5% interest rate monthly. If not Roberto 5 months to pay back Aaron. How much did he owe Aaron altogether?

$$P = 438$$

$$R = 3.5\% \rightarrow .035$$

$$T = 5$$

$$I = (438)(.035)(5)$$

$$*I = 76.65*$$

$$A = P + I$$

$$A = 438 + 76.65$$

$$A = 514.65$$

## Compound Interest

$$A = P(1 + R)^T$$

Dana decides to put \$3,000 in a checking account at her bank. The interest rate is 0.7% and is compounded monthly. What will her new balance be after 6 months?

$$P = 3000$$

$$R = 0.7\% \rightarrow .007$$

$$T = 6$$

$$A = (3000)(1 + .007)^6$$

$$A = 3128.23$$

A = Altogether  
I = Interest  
P = Principal  
R = Rate  
T = Time

Principal: Original Amt.  
Rate: %  $\rightarrow$  decimal  
Time: yrs unless stated otherwise

$A = P + I$   
(Original + interest)  
I = Interest Accrued

## Practice

1. Find the mean absolute deviation of the following set of data:

**10, 8, 14, 3,  
4, 11, 8, 5**

- A. 7.8
- B. 23.4
- C. 2.9
- D. 63

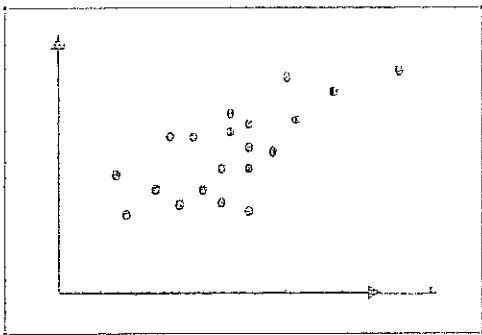
2. Ricardo wants to buy a new car but he does not have enough money so he decides to borrow \$12,000 from the bank to buy his new car. Ricardo's bank is going to charge him 17% interest that will be compounded annually. How much money will he have to pay the bank back if he keeps the loan for 5 years?

- A. \$10,200.00
- B. \$26,309.38
- C. 22,200.00
- D. 28,555.00

3. Lisa deposits \$625 in an account that earns 4% simple interest. How much money is in the account after 3 years?

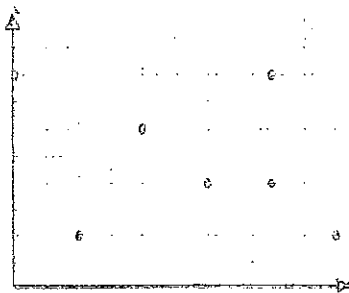
- A. \$75
- B. \$600
- C. \$725
- D. \$700

4. Determine if the following graph has a positive, negative, or no association.



- A. Positive Association
- B. Negative Association
- C. No Association
- D. Not here

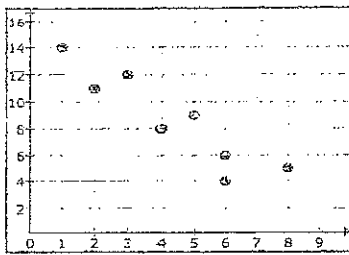
5. Determine if the following graph has a positive, negative, or no association.



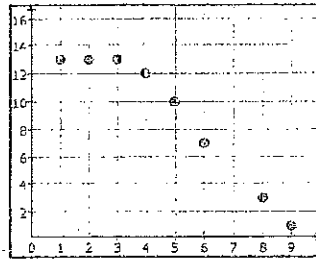
- A. Positive Association
- B. Negative Association
- C. No Association
- D. Not here

6. Which graph represents a linear relationship and why?

Graph A



Graph B



- A. Graph B because it has a pattern and can be used to make predictions.
- B. Graph A because it has a negative association and all graphs with a negative association are linear.
- C. Graphs A and B both represent a linear relationship.
- D. Graph A because you can draw a linear trend line that would approximate the points on the graph.

7. Sarah deposited \$800 in an account that earns 2% interest compounded annually. Claire deposited \$800 in an account that earns 2% simple interest. How much will each girl have in their account at the end of 8 years if they do not make any deposits or withdrawals?

- A. Sarah = \$937.33; Claire = \$928.00
- B. Sarah = \$927.33; Claire = \$918.00
- C. Sarah = \$939.33; Claire = \$938.00
- D. Sarah = \$928.00; Claire = \$937.33

8.

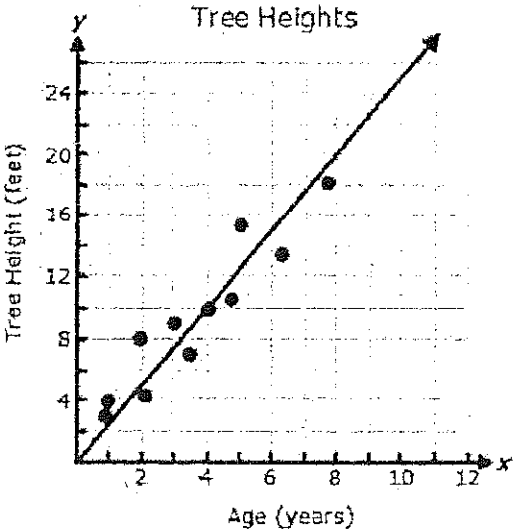
Russell has \$650 to deposit into two different savings accounts.

- Russell will deposit \$400 into Account 1, which earns 3.5% annual simple interest.
- He will deposit \$250 into Account 2, which earns  $3\frac{1}{4}\%$  interest compounded annually.

Russell will not make any additional deposits or withdrawals. Which amount is closest to the total balance of these two accounts at the end of 2 years?

- A. \$672.13
- B. \$695.00
- C. \$694.25
- D. \$694.51

9. Cynthia has been studying the trees growing in the woods near her school. She has determined the age of several trees, and she measured their heights. She recorded that information and displayed it on the scatterplot below. Based on the scatterplot what is the approximate age of a tree that is 34 feet tall?



- A. 7 years
- B. 10.5 years
- C. 13 years
- D. 25 years



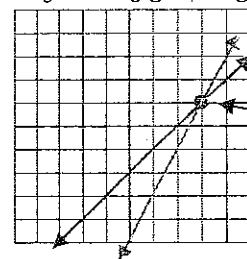
# ALGEBRA

# Solving Systems of Equations by Graphing

Algebra 3

1. Graph both lines on the same coordinate plane.
2. Find the point where the lines meet, and write that solution as an ordered pair.

Ex: Solve the system by graphing:  $\begin{cases} y = x - 2 \\ y = 2x - 5 \end{cases}$



solution:  $(3, 1)$

## Special Cases:

- parallel lines: no solution
- coincident lines (lines that are the same): infinitely many solutions

# Solving Systems of Equations Using Substitution

1. Solve one of the equations for x or y.
2. Replace the x or y in the other equation with the expression you found in step 1 that equals that variable.
3. Solve the equation.
4. Substitute the solution you found in step 3 with the variable in your step 1 equation to solve for the other variable.
5. Write your solution as an ordered pair.

Ex: Solve the system by substitution:  $\begin{cases} x + 3y = 4 \\ 2x - 3y = -1 \end{cases}$

$$\begin{aligned} x + 3y = 4 &\rightarrow x = -3y + 4 \\ 2x - 3y = -1 &\rightarrow 2(-3y + 4) - 3y = -1 \\ &\rightarrow -6y + 8 - 3y = -1 \\ &\rightarrow -9y + 8 = -1 \\ &\rightarrow -9y = -9 \rightarrow y = 1 \\ \rightarrow x = -3y + 4 &\rightarrow x = -3(1) + 4 \rightarrow x = 1 \\ \text{solution: } &\boxed{(1, 1)} \end{aligned}$$

# Solving Systems of Equations Using Elimination

1. Write both equations in Standard Form.
2. Multiply neither, one, or both of the equations by constants so that either the x coefficients or the y coefficients are opposites (i.e. 2 and -2).
3. Add the two equations. The terms with the opposite coefficients will cancel out.
4. Solve the equation for the variable that didn't cancel out.
5. Substitute the solution you found in step 4 for the variable in any of the equations, and solve to find the other variable.
6. Write your solution as an ordered pair.

Ex: Solve the system by elimination:  $\begin{cases} 3x + 4y = 2 \\ -2x + 2y = -6 \end{cases}$

Multiplying by -2 will give the y terms opposite coefficients

$$\begin{aligned} &3x + 4y = 2 \\ &-2(-2x + 2y = -6) \\ \rightarrow &+ 4x - 4y = 12 \\ \hline &7x = 14 \rightarrow x = 2 \end{aligned}$$

$$\begin{aligned} \rightarrow 3x + 4y = 2 &\rightarrow 3(2) + 4y = 2 \\ \rightarrow 6 + 4y = 2 &\rightarrow 4y = -4 \rightarrow y = -1 \\ \text{solution: } &\boxed{(2, -1)} \end{aligned}$$

# Systems of Equations Word Problems

1. Define 2 variables.
2. Write 2 equations.
3. Solve the system of equations using the method of your choice.
4. Label your solution with the appropriate units.

Ex: A 24 question test contains some 3 point questions and some 5 point questions. If the test is worth 100 points, how many of each type of questions are there?

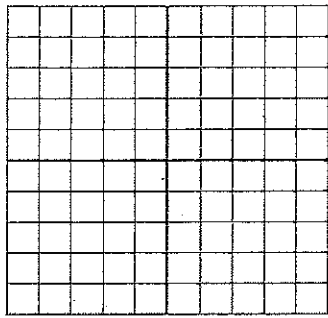
$$\begin{aligned} \text{Let } x &= \# \text{ of 3 point questions} \\ y &= \# \text{ of 5 point questions} \\ x + y &= 24 \\ 3x + 5y &= 100 \end{aligned}$$

solve using substitution or elimination  $\rightarrow$  solution: (10, 14)

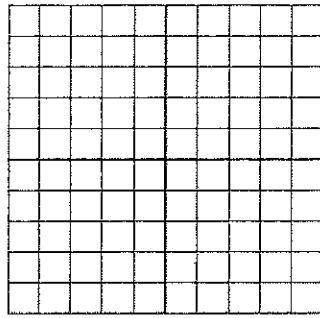
$\rightarrow$  There were 10 3-point questions and 14 5-point questions.

Solve each system of equations by graphing.

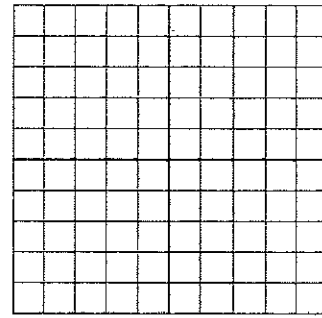
$$50. \begin{cases} y = \frac{1}{2}x - 4 \\ y = -x - 1 \end{cases}$$



$$51. \begin{cases} y = 2x + 1 \\ -y = -2x + 1 \end{cases}$$



$$52. \begin{cases} x - 2y = 4 \\ -3x + 2y = -8 \end{cases}$$



Solve each system of equations using substitution.

$$53. \begin{cases} y = 2x + 3 \\ 5x - 2y = -6 \end{cases}$$

$$54. \begin{cases} x + 4y = 5 \\ -2x + 5y = 16 \end{cases}$$

$$55. \begin{cases} 9y - 7x = -13 \\ -4x + y = 15 \end{cases}$$

Solve each system of equations using elimination.

$$56. \begin{cases} 3x - 7y = -29 \\ -4x + 7y = 27 \end{cases}$$

$$57. \begin{cases} -4x - 8y = -48 \\ 8x + 3y = -34 \end{cases}$$

$$58. \begin{cases} 3x - 7y = 21 \\ 6x = 14y + 42 \end{cases}$$

Solve each word problem using a system of equations.

59. Joe bought 5 apples and 4 bananas for \$6. Dawn bought 3 apples and 6 bananas for \$6.30. How much does each apple and each banana cost?

60. Wesley and Brian have a total of 87 baseball cards. Wesley has 30 less than twice as many cards as Brian. How many baseball cards do they each own?

# Exponent Rules

Zero Exponent: Any base raised to the zero power equals 1.

$$\text{Ex: } (-9)^0 = \boxed{1}$$

Negative Exponent: Move the base to the opposite side of the fraction bar and make the exponent positive.

$$\text{Ex: } 3^{-4} = \frac{1}{3^4} = \frac{1}{\boxed{81}}$$

Monomial x Monomial: Multiply the coefficients and add the exponents of like bases.

$$\text{Ex: } (-2x^3)(8x^{-5}) = -16x^{-2} = \frac{\boxed{-16}}{x^2}$$

Monomial ÷ Monomial: Divide the coefficients and subtract the exponents of like bases.

$$\text{Ex: } \frac{4ab^3}{4a^2b^2} = 1a^{-1}b^1 = \frac{\boxed{b}}{a}$$

Power of a Monomial: Raise each base (including the coefficient) to that power. If a base already has an exponent, multiply the two exponents.

$$\text{Ex: } (3x^3y^2)^3 = 3^3x^9y^6 = \boxed{27x^9y^6}$$

Power of a Quotient: Raise each base (including the coefficients) to that power. If a base already has an exponent, multiply the two exponents.

$$\text{Ex: } \left(\frac{5a^3b}{2c^{-1}}\right)^2 = \frac{5^2a^6b^2}{2^2c^{-2}} = \frac{\boxed{25a^6b^2c^2}}{4}$$

## Multiplying & Dividing Numbers in Scientific Notation

Multiplying Numbers in Scientific Notation:

Multiply the coefficients and add the exponents. If necessary, "fix" the answer to put it in Scientific Notation.

$$\text{Ex: } (3 \times 10^4)(5.8 \times 10^7)$$

$$\begin{aligned} &= (3 \times 5.8) \times 10^{4+7} \\ &= 17.4 \times 10^{11} \\ &= (1.74 \times 10^1) \times 10^{11} = \boxed{1.74 \times 10^{12}} \end{aligned}$$

Dividing Numbers in Scientific Notation:

Divide the coefficients and subtract the exponents. If necessary, "fix" the answer to put it in Scientific Notation.

$$\text{Ex: } \frac{3.6 \times 10^5}{7.2 \times 10^2}$$

$$\begin{aligned} &= (3.6 \div 7.2) \times 10^{5-2} \\ &= 0.5 \times 10^3 \\ &= (5 \times 10^{-1}) \times 10^3 = \boxed{5 \times 10^2} \end{aligned}$$

## Exponential Growth & Decay

Exponential Growth:  $y = a(1 + r)^t$

Exponential Decay:  $y = a(1 - r)^t$

$y$  = new amount,  $a$  = initial amount,  $r$  = rate of change (as a decimal),  $t$  = time

Ex: You bought a new car for \$25,000. If the car's value depreciates at a rate of 12% per year, how much will the car be worth in 5 years?

use exponential decay formula

$$\begin{aligned} y &= 25,000(1 - 0.12)^5 \\ &= 25,000(0.88)^5 \\ &= \boxed{\$13,193.30} \end{aligned}$$

Compound Interest:  $A = P\left(1 + \frac{r}{n}\right)^{nt}$

$A$  = new balance,  $P$  = principal (starting value),  $r$  = interest rate (as a decimal),  $n$  = number of times the interest is compounded annually,  $t$  = time (in years)

Ex: You invest \$5,000 in an account with a 2.5% interest rate, compounded monthly. How much money will be in the account after 20 years?

$$\begin{aligned} A &= 5,000\left(1 + \frac{0.025}{12}\right)^{12 \cdot 20} \\ &= 5,000\left(1 + \frac{0.025}{12}\right)^{240} \\ &= \boxed{\$8,239.32} \end{aligned}$$

# SCIENCE

Simplify each expression completely. Write your answer using only positive exponents.

61. $x^6 \cdot x^4$	62. $(5^3)^2$	63. $-6a^2b^{-4}c \cdot 4ab^2$
64. $\frac{a^3b^{-6}}{c^{-2}}$	65. $\left(\frac{-2x^6y}{3z^5}\right)^3$	66. $(8w^3q^{-5})^0$
67. $\frac{24d^5f^{-5}g^8}{36d^{-3}f^4g^2}$	68. $(2b^{-3}d^6)^4 \cdot 3b^7d$	69. $\left(\frac{-4a^4b^2c^{-1}}{6a^9}\right)^{-1}$

Find each product or quotient. Write your answer in Scientific Notation.

70. $(9.8 \times 10^3)(2.4 \times 10^7)$	71. $\frac{9.3 \times 10^3}{3 \times 10^9}$	72. $\frac{4.5 \times 10^{13}}{9.0 \times 10^7}$
--	---	--

Find the new amount.

73. The population of Watesville decreases at a rate of 1.6% per year. If the population was 62,500 in 2014, what will it be in 2020?	74. A population of 30 bunnies is increasing at a rate of 40% per year. How many bunnies will there be in 5 years?	75. If you \$15,000 in an account with a 4.5% interest rate, compounded quarterly, how much money will you have in 25 years?
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Name: \_\_\_\_\_

## Relationships – Option 2 Worksheet

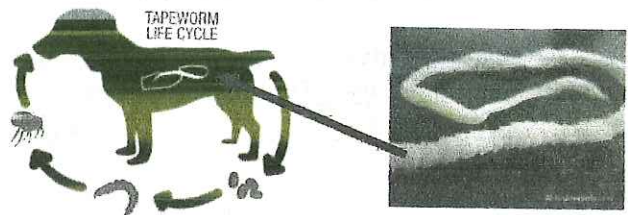
### Symbiotic Relationships, Predation and Competition

**SYMBIOTIC RELATIONSHIPS:** Organisms living together resulting in at least one of them benefitting from the other.

How are these organisms interacting with each other?

**1. Parasitism:** Ex. A tapeworm feeding off an organism

When one organism (the parasite) lives in/on another organism (the host) and benefits at its expense. (☹, ☹)



**STOP & JOT:** Parasites rarely kill their hosts right. Instead they keep them alive as long as needed. In fact, the best parasites *never* actually kill their hosts, though they may weaken them significantly. Explain why parasites would not want to kill their hosts immediately. \_\_\_\_\_

**2. Commensalism:** The Remora Fish feeds off the food scraps from the shark



When one organism benefits, and the other isn't helped or harmed (☺, ☹)

The remora has a suction cup on the top of its head to attach to the shark. It eats the excess food that the shark doesn't eat and also gets a free ride (using no energy of its own for movement). Does the remora cause any harm to the shark? \_\_\_\_\_ Does the shark benefit from the remora in any way? \_\_\_\_\_

**3. Mutualism:** The Plover cleans the teeth of the crocodile

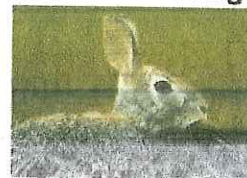


When organisms do things that benefit each other (☺, ☺)

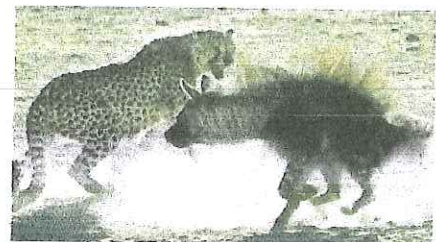
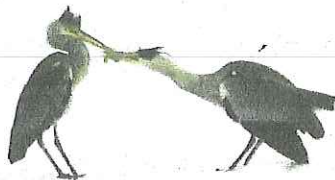
How does the plover benefit? \_\_\_\_\_  
How does the crocodile benefit? \_\_\_\_\_

**Other Relationships:**

**Predation** – one animal stalks, kills and eats another or simply eats another when finding it (herbivores "prey" on plants).



**Competition** – two or more organisms fight for resources (food, space, shelter, a mate), can be between same species or different species.



**Symbiosis PRACTICE**

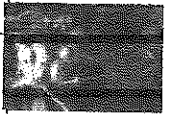
**Directions:** Read each of the relationship scenarios below. Identify the two organisms involved in the boxes labeled 'Organism 1' and 'Organism 2', and identify whether they benefit, are harmed, or are neutral in the relationship. Lastly, classify what type of symbiosis each example is in the third column.

Example:

Organism 1	Organism 2	Symbiotic Relationship?
Cordyceps Fungus (Benefits)	Ant (Harmed)	Parasitism (☺, ☹)

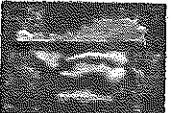
1. A type of bacteria lives in the roots of plants. The bacteria helps the plants obtain nutrients. The roots are a moist home, which helps the bacteria grow and reproduce.

Organism 1	Organism 2	Symbiotic Relationship?



2. The fungus known as "chicken of the woods" grows on trees. The fungus breaks down the tree and gets its nutrients that way. The tree decays, gets weak, and becomes very vulnerable to extreme weather.

Organism 1	Organism 2	Symbiotic Relationship?



3. Tapeworms are a particular species of worm that resides in the small intestine of mammals (including humans). The tapeworm latches on to the walls of the small intestine, and siphons (steals) nutrients from the mammal's digestive tract. This can cause severe nutrient deficiency, weakness, and extreme weight-loss for the mammal.

Organism 1	Organism 2	Symbiotic Relationship?



4. Cattle Egrets are a type of bird commonly found on farms. As cattle, horses, and other livestock graze (eat grass) on the field, they cause movements that stir up various insects. As the insects are stirred up, the cattle egrets following the livestock catch and feed upon them.

Organism 1	Organism 2	Symbiotic Relationship?



5. Oxpeckers are a small bird commonly found on rhinoceroses. The oxpecker feeds on the parasites that cover the rhinoceroses' skin. The bird gets a meal and the rhinoceros is relieved of the harmful parasites.

Organism 1	Organism 2	Symbiotic Relationship?





1. Two interactions between organisms are shown in the table below. X and Y do not represent the same organisms in the two interactions

	Organism X	Organism Y
Interaction 1	predator	prey
Interaction 2	parasite	host

Which statement best describes the relationship between organism X and organism Y in each interaction?

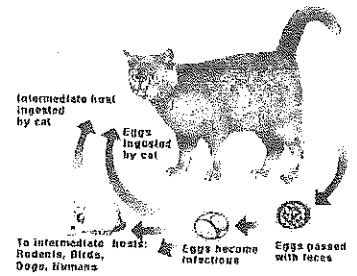
- (1) Organism X is positively affected by the relationship and organism Y is negatively affected
  - (2) Organism X is negatively affected by the relationship and organism Y is positively affected
  - (3) Both organisms are positively affected by the relationship
  - (4) Both organisms are negatively affected by the relationship
2. After the Aswan High Dam was built on the Nile River, the rate of parasitic blood-fluke (a worm-like microorganism) infection doubled in the human population near the dam. As a result of building the dam, the flow of the Nile changed. This changed the habitat, which resulted in an increase in its population of a certain aquatic snail. The snails, which were infected, released larvae of the fluke. These larvae then infected humans. The role of the snail in this relationship may be described as a
- (1) Host
  - (2) Parasite
  - (3) Producer
  - (4) Decomposer

For the questions that follow, determine the type of relationship (mutualism, parasitism, commensalism, predation or competition) being described, and briefly explain your reasoning.

3. A fox is carrying a dead squirrel as a hawk swoops down to grab it. They both pull on the squirrel but the flapping wings of the hawk against the face of the fox are strong enough to make the fox drop the squirrel.
- 
- 
4. Wasp larvae can grow inside a type of caterpillar known as the Tomato Hornworm. The caterpillars are eventually killed when the larvae eat through and rupture its organs and skin as they exit its body.
- 
- 
5. Barnacles are small sea creatures which filter plankton and other microscopic organisms from the water for food. Barnacles often attach themselves using a type of natural glue to larger animals such as whales and sea turtles, which inadvertently carry the barnacles to new sources of food when they move. Their "glue" is harmless.
- 
- 
6. Two mule deer lock antlers as they demonstrate strength and worthiness to a female mule deer. The winner of this battle will mate with the female.
- 
- 
7. Polar bears wander the ice looking for signs of seals. Once they find a seal they will attack and eat it.
- 
- 
8. A bee feeds off the nectar of a sunflower. While feeding, pollen from the sunflower clings to the legs and body of the bee. When the bee lands on a different sunflower, the pollen is left behind and new pollen picked up.
- 
-

## Toxoplasmosis: A Cause for Concern?

*Toxoplasmosis* is a disease caused by the microscopic parasite *Toxoplasma gondii*. The parasite usually infects mice, affecting their nervous system and causing them to take unusual risks (such as running out in the open, and coming unusually close to animals which may eat them). Scientists believe this is actually a way for the parasite to reach its primary host – cats. When a cat catches and eats an infected mouse, the *Toxoplasma gondii* enters its digestive system and steals nutrients from the cat. Humans can become infected by *Toxoplasma gondii* through contact with cat feces. Scientists now believe that *Toxoplasmosis* in humans can cause substantial changes in mood and behavior, and may even be linked to certain types of depression. It is estimated that 30-65% of people worldwide may be infected with *Toxoplasma gondii*.



9. Based on the story above, discuss how the organisms interact with each other. In your response, be sure to:
- Identify at least TWO different symbiotic relationships involved in *Toxoplasma gondii* transmission and explain each

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

- Identify a predatory relationship

\_\_\_\_\_

\_\_\_\_\_

Define the following as they relate to this topic:

**Symbiosis:**

**Predation:**

**Competition:**

## Symbiotic Relationships Pre/Post-Test

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_ Grade \_\_\_\_\_/100

SC.7.L.17.2 Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism

SC.7.L.17.3 Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

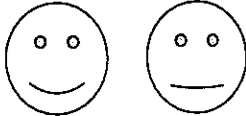
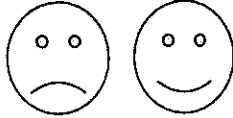
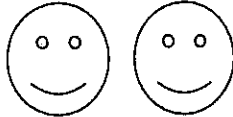
Directions: Answer each of the following questions below – each multiple choice question is worth 6 points.

- \_\_\_\_\_ Which of the following symbiotic relationships is considered parasitic?
  - Tapeworm in an intestinal tract
  - Bees transporting pollen from flowers
  - Pilot fish swimming under sharks
  - Birds eating the insects from the back of a hippopotamus
- \_\_\_\_\_ Ants and acacia trees have a mutualistic relationship because
  - They both benefit from living with each other.
  - They are part of the same ecosystem.
  - They are both adapted to a humid climate.
  - The ants eat part of the acacia tree.
- \_\_\_\_\_ Male bull sea lions fighting for beach master dominance and the first pick of female cows during mating season is an example of which symbiotic relationship?
  - Competition
  - Mutualism
  - Predation
  - Decomposition
- \_\_\_\_\_ What does symbiosis mean?
  - living separately, no relationship between 2 species
  - living together, close relationship between 2 species
  - living in a community with no interaction between each other
  - living together in fear of each other

5. \_\_\_\_\_ What type of relationship is Commensalism?

- A. One species benefits and the other is not affected at all.
- B. Both species involved benefit from the relationship.
- C. One species benefits and the other is harmed.
- D. Competing for the same food source

6. *Match the following Picture (representation) to the Correct Symbiotic Relationship by drawing a line from the word to the picture that matches the relationship*

<b>A. Mutualism</b>	A 
<b>B. Parasitism</b>	B 
<b>C. Commensalism</b>	C 

Question 6 answers: 2 points each = 6 Total points

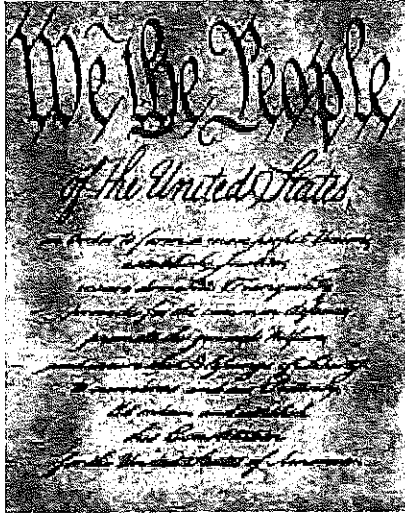
A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

**SOCIAL  
STUDIES**

# Steps toward Representative Government in America



The American colonies began developing a democratic tradition during their earliest stages of colonization. From the Virginia House of Burgesses and the Mayflower Compact to the eventual Articles of Confederation and United States Constitution, the people that help shape our form of government learned from others, and from their mistakes. Over 150 years, the colonists began to believe that their experience was great enough to refuse to recognize the British king and create a country of their own...

Here is a list the people, documents, and institutions that helped shape the government we all enjoy today.

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# Influences on American Government

- John Locke



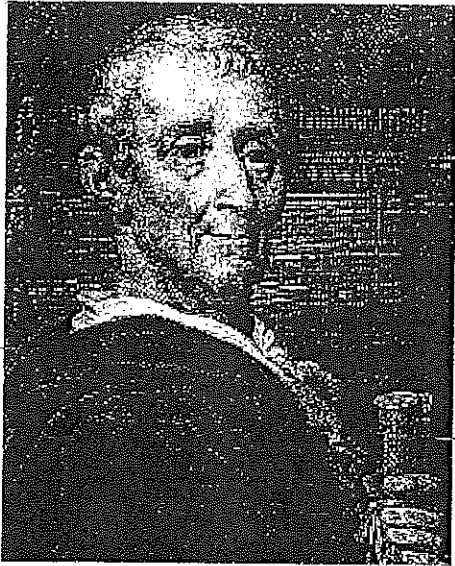
The single most important influence that shaped the founding of the United States comes from John Locke, a 17th century Englishman who redefined the nature of government. In his *Second Treatise of Government*, Locke identified the basis of a legitimate government. According to Locke, a ruler gains authority through the consent of the governed (rather than being given power by divine right).

The duty of the government is to protect the natural rights of the people, which Locke believed to include life, liberty, and property. If the government should fail to protect these rights, its citizens would have the right to overthrow that government. This idea deeply influenced Thomas Jefferson as he drafted the Declaration of Independence.

Source: <http://www.ushistory.org/gov/2.asp>

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- Montesquieu



Charles-Louis de Secondat, Baron de La Brède et de, generally referred to as simply Montesquieu, was a French social commentator and political thinker who lived during the Age of Enlightenment.

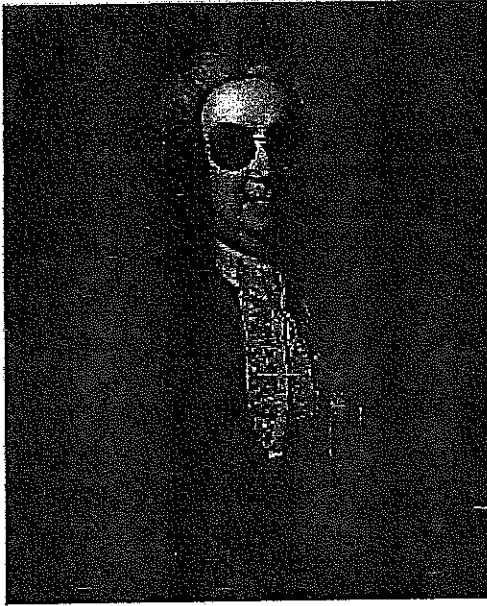
According to Montesquieu, there were three types of government: monarchy (ruled by a king or queen), a republic (ruled by an elected leader), and a despotism (ruled by a dictator). Montesquieu believed that a government that was elected by the people was the best form of government. He did, however, believe that the

success of a democracy - a government in which the people have the power - depended upon maintaining the right balance of power.

Montesquieu argued that the best government would be one in which power was balanced among three groups of officials. He thought England - which divided power between the king (who enforced laws), Parliament (which made laws), and the judges of the English courts (who interpreted laws) - was a good model of this. Montesquieu called the idea of dividing government power into three branches the "separation of powers." He thought it most important to create separate branches of government with equal but different powers. That way, the government would avoid placing too much power with one individual or group of individuals. He wrote, "When the [law making] and [law enforcement] powers are united in the same person... there can be no liberty." According to Montesquieu, each branch of government could limit the power of the other two branches. Therefore, no branch of the government could threaten the freedom of the people. His ideas about separation of powers became the basis for the United States Constitution.



- Salutary Neglect



From 1607 to 1763, the unwritten British policy for governing the American Colonies was referred to as salutary neglect. Under salutary neglect, enforcement of parliamentary law was deliberately lax, with the stated objective of encouraging colonial prosperity. Colonists were, for the most part, left to look after their own affairs. The practice of salutary neglect for generations, along with the attempt to end this policy and reassert British authority in the 18th century, are identified as important factors leading to the American Revolution.

During this time, the colonists largely were self-governing. Beginning with the House of Burgesses in Virginia, each of the 13 colonies developed its own legislative body. By the 18th century, they were functioning as independent, autonomous governments.

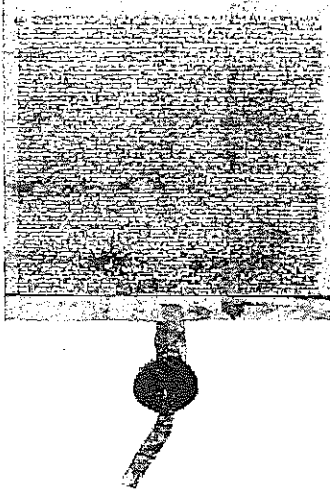
Americans enjoyed personal and religious freedoms not shared by other British subjects. Maryland passed the Act Concerning Religion, or the Maryland Toleration Act, in 1649 to protect religious freedoms and promote tolerance. Similar legislation in Pennsylvania attracted settlers from the Quaker community.

Under salutary neglect, the colonists did not feel the influence of the British government and culture. These developments led to a growing sense of American identity, distinct from Britain. Americans had become used to the idea of self-governance and began to think of themselves as British subjects in name only.

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- Magna Carta

## Magna Carta (1215)



Magna Carta was written by a group of 13th-century barons to protect their rights and property against a tyrannical king. It is concerned with many practical matters and specific grievances relevant to the feudal system under which they lived. The interests of the common man were hardly apparent in the minds of the men who brokered the agreement. But there are two principles expressed in Magna Carta that resonate to this day:

*"No freeman shall be taken, imprisoned, disseised, outlawed, banished, or in any way destroyed, nor will We proceed against or prosecute him, except by the lawful judgment of his peers and by the law of the land."*

*"To no one will We sell, to no one will We deny or delay, right or justice."*

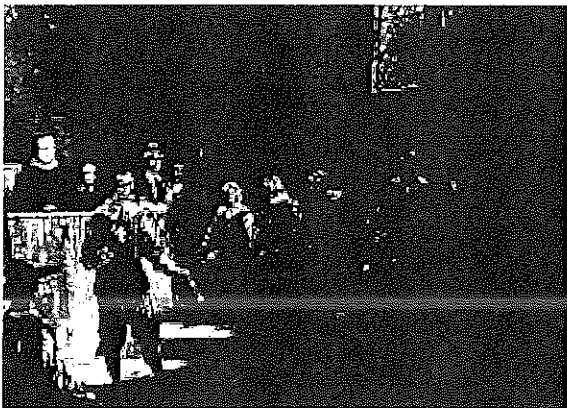
### Inspiration for Americans

During the American Revolution, Magna Carta served to inspire and justify action in liberty's defense. The colonists believed they were entitled to the same rights as Englishmen, rights guaranteed in Magna Carta. They embedded those rights into the laws of their states and later into the Constitution and Bill of Rights.

The Fifth Amendment to the Constitution ("*no person shall . . . be deprived of life, liberty, or property, without **due process of law.***") is a direct descendent of Magna Carta's guarantee of proceedings according to the "law of the land."

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- The Virginia House of Burgesses (1619)



The first legislature anywhere in the English colonies in America was in Virginia. This was the House of Burgesses, and it first met on July 30, 1619, at a church in Jamestown. Its first order of business was to set a minimum price for the sale of tobacco. Although the first session was cut short because of an

outbreak of malaria, the House of Burgesses soon became a symbol of representative government. Among the 22 members was the governor, who was appointed by officials of the Virginia Company in London. The governor in turn appointed six important members of the colony to be his council. The other 15 members were elected by the colony as a whole, or actually men over 17 who also owned land.

The House of Burgesses, which met at first only once a year, could make laws, which could be vetoed by the governor or the directors of the Virginia Company. This continued to be the standard until 1624, when Virginia became a royal colony. At this time, England took much more control of things in Virginia, restricting the powers of the House of Burgesses.

Through the years leading up to the Revolutionary War, many leaders of the move toward independence made their names in the House of Burgesses. Patrick Henry introduced seven resolutions against the Stamp Act in 1765.

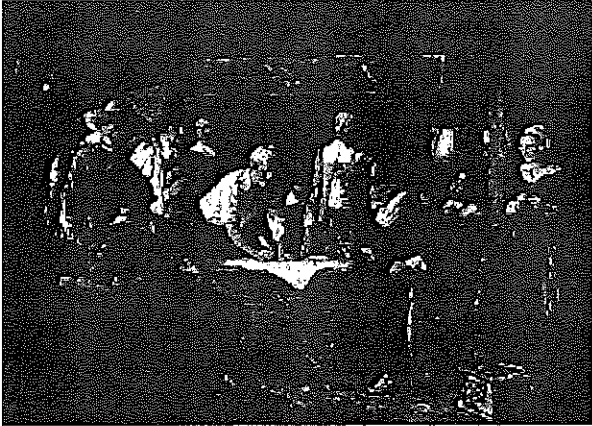
The fact that the burgesses could make their own laws was very much on the minds of many people in the American colonies, especially when Great Britain continued to pass harsh laws that the colonists viewed as "taxation without representation."

Famous burgesses also included George Washington and Thomas Jefferson.

Source: <http://www.socialstudiesforkids.com/articles/ushistory/houseofburgesses.htm>

- The Mayflower Compact

## The Mayflower Compact - 1620



The Mayflower Compact, signed by 41 English colonists on the ship *Mayflower* on November 11, 1620, was the first written framework of government establishing self-rule in what is now the United States. The compact was drafted to prevent dissent amongst Puritans and non-separatist Pilgrims who landed at Plymouth a few days earlier.

The *Mayflower* carried not only the Pilgrims but a few other settlers as well. When it arrived at Cape Cod, several hundred miles north of its planned destination in Virginia due to storms at sea, the passengers realized they were outside the bounds of the governmental authority they had contracted with in England.

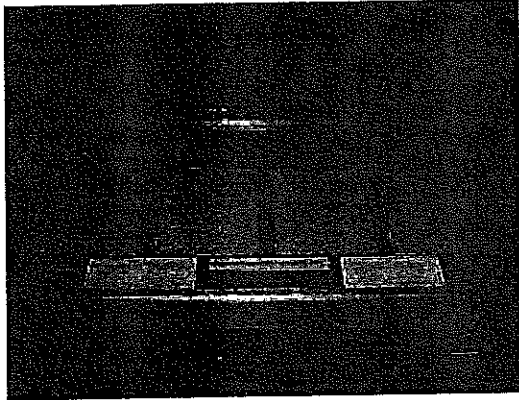
William Bradford, the Pilgrim leader, was alarmed to learn that some of the others felt no obligation to respect the rules of the Pilgrims. In his words, they wanted to "use their owne libertie." The male heads of Pilgrim and non-Pilgrim families therefore drew up a compact that bound all signers to accept whatever form of government was established after landing. The compact created a "Civil Body Politic" to enact "just and equal Laws, Ordinances, Acts, Constitutions and Offices." Every adult male had to sign the agreement before going ashore. The compact remained in effect until Plymouth was incorporated into the short-lived Dominion of New England in 1686 and subsequently absorbed into the Massachusetts Bay Colony in 1691.

Source: <http://www.history.com/topics/mayflower-compact>

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- The Fundamental Orders of Connecticut

### Fundamental Orders of Connecticut (1639)



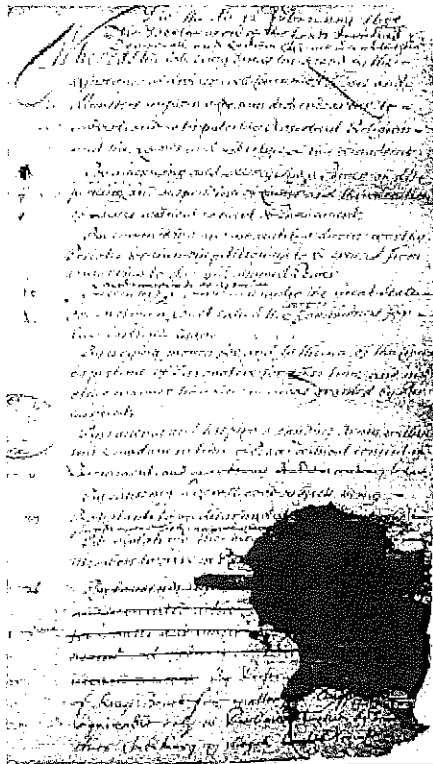
This document was the first written constitution in North America. Written by Puritan clergymen, The Fundamental Orders of Connecticut was adopted by the residents of Hartford, Windsor, and Wethersfield and remained the colony's law until 1662. It was composed of a preamble and eleven orders, and named God's requirement for "good and orderly government" to "order and dispose" of peoples' affairs as the reason for people to "associate and conjoin" themselves into a Commonwealth. The purpose of the Commonwealth was "to maintain and preserve the liberty and purity of the Gospel of our Lord Jesus," as well as to formulate "Laws, Rules, Orders and Decrees" to guide civil affairs.

The Orders provided for election of a governor and six magistrates. This body had lawmaking, executive, and judicial power. It also included guidelines for representation and paying taxes. It was followed two years later by the Massachusetts Body of Liberties.

Source: <http://billofrightsinstitute.org/resources/educator-resources/mericapedia/mericapedia-documents/orders-of-connecticut/>

## • The English Bill of Rights

### English Bill of Rights (1689)



The English Bill of Rights is an English precursor of the U.S. Constitution Bill of Rights, along with the Magna Carta. The English Bill of Rights limited the power of the English sovereign, and was written as an act of Parliament. As part of what is called the "Glorious Revolution," the King and Queen William and Mary of Orange accepted the English Bill of Rights as a condition of their rule. The Bill of Rights asserted that Englishmen had certain inalienable civil and political rights, although religious liberty was limited for non-Protestants: Catholics were banned from the throne, and Kings and Queens had to swear oaths to maintain Protestantism as the official religion of England. Unless Parliament consented, monarchs could not establish their own courts or act as judges themselves; prevent Protestants from bearing arms, create a standing army; impose fines or punishments without trial; or impose cruel and unusual punishments or excessive bail. Free speech in Parliament was also protected. These protections are roots of those in the United States Bill of Rights and the First, Second, Fourth, Fifth, Sixth, and Eighth Amendments.

Source: <http://billofrightsinstitute.org/resources/educator-resources/americanpedia/americanpedia-documents/english-bill-of-rights/>

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## **Note Questions: John Locke**

1. According to John Locke, how did a ruler gain their authority?
2. What did Locke think were the responsibilities of government?
3. How did John Locke influence American government?

## **Note Questions: Montesquieu**

4. According to Montesquieu, what form of government is the best?
5. What ideas that Montesquieu wrote about are evident in our government today?

## **Note Questions: Salutary Neglect**

6. What is salutary neglect?
7. How did this salutary neglect shape life in America?

## **Note Questions: Magna Carta**

8. How did the Magna Carta influence American government?
9. What right of a citizen do we have today that is a direct influence of the Magna Carta?

## **Note Questions: Virginia House of Burgesses**

10. What is the significance of the Virginia House of Burgesses?
11. How is our government today similar to the Virginia House of Burgesses?

## **Note Questions: Mayflower Compact**

12. What is the significance of the Mayflower Compact?
13. What was the purpose of the Mayflower Compact?

## **Note Questions: Fundamental Orders of Connecticut**

14. What is the significance of the Fundamental Orders of Connecticut?
15. How are the ideas of the Fundamental Orders of Connecticut similar to our government today?

## **Note Questions: English Bill of rights**

16. What is the significance of the English Bill of Rights?
17. What influence did the English Bill of Rights have on our government?







# ELECTIVES



# Los artículos

Completa el recuadro con los artículos que faltan.

	Masculino		Femenino	
	Singular	Plural	Singular	Plural
Definidos	el	los	la	las
Indefinidos	un	unos	una	unas

Marca con una X los rectángulos donde hay artículos definidos.

el	yo	pera	las
tú	padre	la	uña
nosotras	los	blanco	niño

Marca con una X los rectángulos donde hay artículos indefinidos.

niña	anillo	los	una
ella	un	usted	prueba
unos	yo	unas	gato



# Los artículos

Completa los espacios con los artículos que corresponden.

## Definidos

## Indefinidos

Singular

Plural

Singular

Plural

1

\_\_\_\_\_ perro

\_\_\_\_\_ perros

\_\_\_\_\_ perro

\_\_\_\_\_ perros

2

\_\_\_\_\_ silla

\_\_\_\_\_ sillas

\_\_\_\_\_ silla

\_\_\_\_\_ sillas

3

\_\_\_\_\_ niño

\_\_\_\_\_ niños

\_\_\_\_\_ niño

\_\_\_\_\_ niños

4

\_\_\_\_\_ mesa

\_\_\_\_\_ mesas

\_\_\_\_\_ mesa

\_\_\_\_\_ mesas

5

\_\_\_\_\_ vaso

\_\_\_\_\_ vasos

\_\_\_\_\_ vaso

\_\_\_\_\_ vasos

6

\_\_\_\_\_ casa

\_\_\_\_\_ casas

\_\_\_\_\_ casa

\_\_\_\_\_ casas

7

\_\_\_\_\_ anillo

\_\_\_\_\_ anillos

\_\_\_\_\_ anillo

\_\_\_\_\_ anillos

8

\_\_\_\_\_ niña

\_\_\_\_\_ niñas

\_\_\_\_\_ niña

\_\_\_\_\_ niñas

9

\_\_\_\_\_ libro

\_\_\_\_\_ libros

\_\_\_\_\_ libro

\_\_\_\_\_ libros

10

\_\_\_\_\_ boca

\_\_\_\_\_ bocas

\_\_\_\_\_ boca

\_\_\_\_\_ bocas

11

\_\_\_\_\_ uña

\_\_\_\_\_ unas

\_\_\_\_\_ uña

\_\_\_\_\_ uñas

12

\_\_\_\_\_ plato

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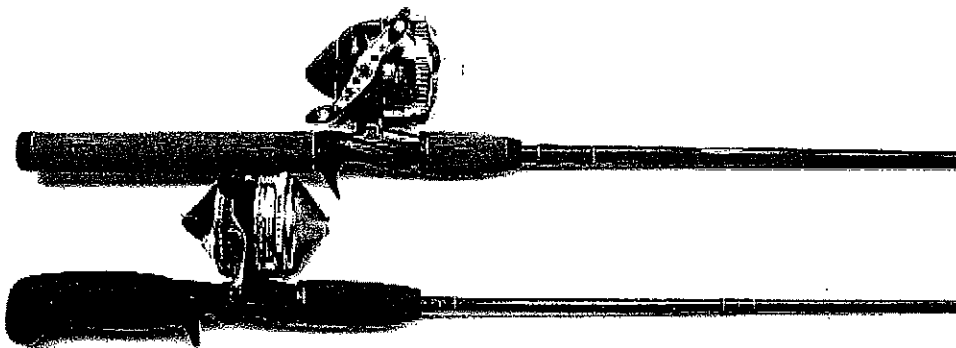


# Outdoor Adventure 4-13-20

Last week we looked at fish species. We also learned a little about how to identify species and some of the environments they live in and what they eat. This week we will focus on how to catch some of those species and the gear you can use to do that. Just like you need cleats to play soccer or a reed to play the flute, the tools you use when fishing can make a difference in the amount of success you have. Let's look at some of those tools now.

<http://learninghowtofish.com/fishing-equipment/fishing-rods-reels/>

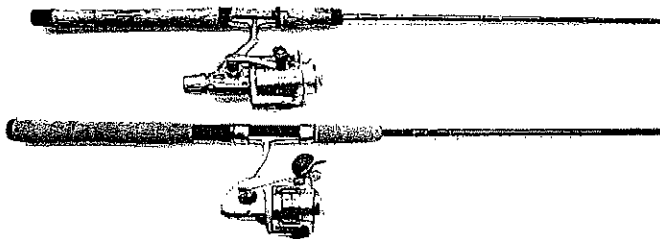
## Spincasting



This is the preferred set-up for the inexperienced angler. Spincasting outfits are excellent in teaching the beginning angler and children the mechanics of casting. The spin cast reel is mounted above the rod with the reel **spool** enclosed with a nose cone cover, this prevents line snarling and backlash's are associated with bait casting reels.

Casting is a simple task, the angler presses and holds down a button on the rear of the reel, this disengages the line pick-up pin, upon the forward cast the line comes off the spool. Once the crank handle is turned the pick-up pin is engaged retrieving the line on the spool. Spincast reels have low gear ratios as a result of the size of the spool, which makes it difficult to fish lures that require a fast retrieve such as; spinner baits and buzz baits. For rods buy fiberglass their durability will hold up from breaking.

## Spinning Reel



In casting a spinning reel the angler opens the **bail**, grasping the line with the forefinger, then using a backward snap of the rod followed by a forward cast, the line is drawn off the fixed non rotating spool and not against a rotating spool such as a bait

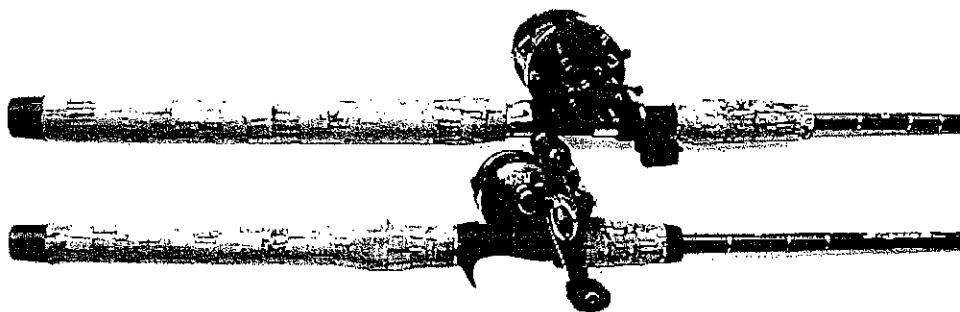


casting reel. Because of this lighter lures can be used where the weight of the lure does not have to pull against a rotating spool.

Spinning rods have large fishing line guides to minimize line friction upon casting.

Spinning outfits operate best using fairly light weight limp flexible **monofilament** fishing lines and are used for bluegills, crappies, perch and walleyes.

## Baitcasting



Baitcasting outfits are excellent for many kinds of fishing, and come in a wide variety of options and types: Round and Low Profile, High and Low Retrieve Speed along with anti-reverse handles and line drags designed to slow runs by large and powerful gamefish. Baitcasting outfits are considered the standard when using heavier lures fishing bass, pike and muskie.

All bait casting reels are mounted above the rod, when casting the angler moves the rod backward then snapping it forward, the line is pulled off the reel by the weight of the lure. In the early years of bait casting reels the angler used their thumb to control the amount of line travel as well as to prevent the spool overrun or backlash.

Today all quality bait casting reels have a spool tension feature for adjusting the centrifugal brake, and or a magnetic 'cast control' to reduce spool overrun during a cast and resultant line snare called a birds nest.

Define these Terms

Rod-

Reel-

Spool-

Drag-

Bonus: List three different types of lines-



Mr. Miles

Directions: Choose one box a day. You can answer it as creatively as you like. Have some fun with it. You can email me at [jmiles@mpisd.net](mailto:jmiles@mpisd.net) at any time and I will get back with you ASAP.

Watch the video from PianoTV on youtube. Specifically the one on Modern Music and Impressionism. Jot down some thoughts.

<https://www.youtube.com/watch?v=bfmbA7fPRsw> (Modernism)

<https://www.youtube.com/watch?v=lof6AHvXCPw> (Impressionism)

What do you know about the United States in regards to Music History? Compile a list of resources to discover about our country in relation to music.



Week 3 Health Activity (4/14-4/17)

Resting Heart Rate and Effects of Workouts

Directions: Record your heart rate after each activity for one minute, you can use your phone as a timer. For you reflection at the end, explain which workout is best for your heart in your opinion and why.

Resting Heart Rate-

Heart rate after 1 minute of pushups-

Heart rate after 1 minute of sit-ups-

Heart rate after jogging for 5 minutes-

Heart rate after sprinting for 1 minute-

Reflection: Which exercise is best for strengthening your heart and why?

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Coach Grubbs Contact Info

Phone: (903) 563-5892 (Cell)

E-Mail: [cgrubbs@mpisd.net](mailto:cgrubbs@mpisd.net)

If you have any questions regarding an assignment of mine (or need help with another assignment) please feel free to call, text, or e-mail me with questions. I know that this whole situation is new, and I want to be here to help y'all. I will make sure that I am replying/answering calls between 8 AM and 5PM every weekday. (If you are working on a computer, save this document and e-mail it to me when you finish. I will have a google classroom set up next week.)





# ACCOMMODATIONS FOR SPACE EXPLORATIONS

## Reflect

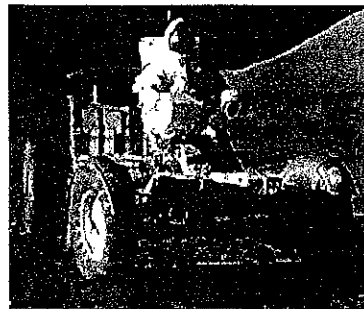
Human beings are adapted to conditions found on Earth. The conditions in space and on the Moon are very different from those on Earth. For example, in space there is no air to breathe or gravity to keep an astronaut from floating away. Can you think of other ways in which conditions in space and on the Moon differ from those on Earth? How do you think these conditions threaten the health and lives of astronauts?

### To survive in space, humans must account for several environmental factors.

The human exploration of space began in the 1960s. Astronauts from all over the world have been traveling into space ever since. Some have traveled as far as Earth's moon, walking and riding over its surface. Others have lived for months at a time aboard the International Space Station, which floats in orbit about 200 miles above the planet's surface. However, no matter how they make the journey, astronauts always are exposed to a hostile and potentially deadly environment.

Temperatures in space plummet far below 0°C, the freezing point of water. At the bottom of some craters on the Moon, temperatures have been measured at less than -238°C (-397°F). Oxygen, which sustains life on Earth, is absent in space and on the Moon. Harmful radiation from the Sun and other parts of the galaxy shoots through space. This radiation has so much energy that it can destroy living tissue that is not protected by special suits. Without gravity to support them, human bones and muscles can become extremely weak.

Yet, astronauts have survived being exposed to this environment, and they have returned to Earth in good shape. How is this possible? Engineers have designed life support systems for astronauts. These include space suits, space capsules, space vehicles, and space habitats that protect humans against the harmful effects of the space environment.



Life support systems have allowed astronauts to work outside the International Space Station (left) and to ride on the Moon's surface (right) without being harmed.



# ACCOMMODATIONS FOR SPACE EXPLORATIONS

Astronauts in space vehicles or aboard the International Space Station float weightlessly. Their muscles and bones no longer have to work against the force of gravity. If astronauts do nothing but float, they will lose bone and muscle tissue. They will lose fluids and red cells from their blood, and less oxygen will move through their bodies.

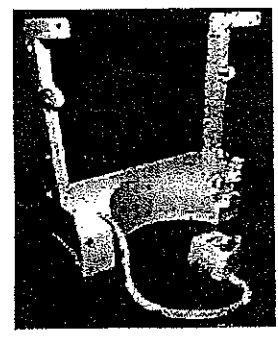
Fortunately, scientists have found ways to keep astronauts healthy in microgravity environments. Astronauts aboard the space station spend several hours a day exercising using stationary bicycles, treadmills, and a piece of equipment called a Resistance Exercise Device (RED). The RED is like a weight-lifting machine equipped with rubber cords. Astronauts use their hands, arms, legs, feet, and other body parts to pull the cords. Straps and harnesses keep the astronauts from floating away as they exercise!

## What Do You Think?

How do you think astronauts move around their spacecrafts in a microgravity environment? How do you think they sleep without floating out of bed? What are some other challenges of living without gravity that the astronauts deal with?

### Getting Technical: SAFER

When astronauts move or work outside a space vehicle, they use strong cords to attach themselves to the vehicle. If this cord were to break or come loose, the astronaut would be in danger of floating away. As an additional safeguard, space scientists and engineers designed a kind of life preserver called SAFER. SAFER stands for Simplified Aid for EVA Rescue. (Remember, EVA refers to activity outside of a space vehicle.)



The SAFER backpack allows astronauts to control the direction in which they float.

You might think of SAFER as a life preserver that is worn like a backpack. SAFER is equipped with containers of compressed nitrogen gas. An astronaut floating away from a space vehicle releases jets of nitrogen from ports located around the backpack. This thrusts the astronaut in the direction opposite to where the gas is flowing. Astronauts use a kind of joystick to control which ports release nitrogen. This allows astronauts to maneuver themselves safely back to their vehicle.

### What do you know?

Astronauts in space require life support systems they don't need on Earth. These systems are necessary because conditions in space are very different from conditions on Earth.

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## Dance I and Dance II (ADT)-

Weeks of April 13<sup>th</sup>- May 4<sup>TH</sup>

Hey guys!!! I hope everyone is doing well and STAYING HOME!!! Make sure you are stretching Every day and practicing your skills. I have set up a Remind in order for us to keep in contact- [www.remind.com/join/mpjhd](http://www.remind.com/join/mpjhd) I can't wait to hear from you all. Feel free to send me videos of you dancing. LOVE AND MISS YOU!!!

COACH D ©\_ericadance13@hotmail.com

Mondays- Stretch (30 minutes; be sure to practice splits)

Tuesdays- Across the Floor Skills

Wednesdays- Center Skills

Thursdays- Review all Dances that we learned

Fridays- Freestyle Friday- (Learn any style dance routine from YouTube or TikTok) If you do not have access to either of those, create your own.

From Ms. H: If you would like to have a zoom lesson with me, please contact me and let me know. Also, if you want to send me a video of what you are working on do it!! I look forward to hearing from you!! You can even send me a TIKTOK. My contact info is: [aliciaghargett@gmail.com](mailto:aliciaghargett@gmail.com) Feel free to message or contact me on remind as well.

## **Honors Band/Symphonic Band April 13th- May 4TH (YOU MUST COMPLETE 1-3 DAILY)**

1. 10 minutes- Mouthpiece warm-up/face buzz
  - Breathing exercises, Long tones, sirens, lip slurs
2. 10 minutes- Instrument warm-up
  - Lip Slurs, scales in whole notes
3. 10 minutes- Scale Studies
  - Work on all scales (SCALE PATTERN LIKE ALL-REGION)
  - Blue Book Exercises
  - If you don't have scales, you can work on note recognition/memory
4. 15-20 minutes- Band Repertoire
  - Work on Contest Music
  - Work on fun music (you can find sheet music online to work on)
5. 20-30 minutes- Friday Music Fun Day (send me your videos)
  - Play some music games
  - Watch some fun music videos
  - Learn any song your choice
  - [http://www.musictechteacher.com/music\\_quizzes/music\\_quizzes.htm](http://www.musictechteacher.com/music_quizzes/music_quizzes.htm)



## PE Activities

Hi guys, hope you're all well and doing great.

While you're home, we just want to be sure you stay in shape. So, I'm sending you a list of workouts you can do at home.

Each Day: Before starting your workout, be sure to stretch first.

Remember to stretch your arms, legs and back.

1. Jumping Jacks.....20
2. Squat Jumps.....10
3. Push Ups.....10
4. Sit Ups.....20
5. Toe Touches.....20
6. One Minute Plank
7. Run In Place.....1 Minute

### Tennis:

**HELLO STUDENTS! Coach Washington and I miss you very much. We hope that you are home resting, staying out of trouble and enjoying the extra time with your families. We have a court update: OUR COURTS HAVE BEEN RESURFACED!! They are done and ready for you guys to come back and hit! If you have your racket at home try and get out of the house and dribble a ball or use a wall outside to volley with.**

**We would also like you to get your physical activity in DAILY. Please do a 10 minute walk, 25 jumping jacks, 10 lunges, 10 squats, 10 push ups. Again, we miss you and cannot wait to see you.**





## Business Marketing Lesson

Week 3 (Monday April 6<sup>th</sup> to Friday April 10<sup>th</sup>)

I've picked out some questions from our Personal Financial Literacy module worksheets. Do your best on answering them.

1. What does it mean to have a career?
2. Would you like your employer to put your paycheck directly into your account or give you a hard copy of your check & you take it to your bank of choice & deposit it yourself? Tell me why you picked your choice of payment?
3. What is the difference between a debit card & a credit card?
4. List some different ways to make money other than your current job?
5. Explain what a budget is and list some ways it can help you?



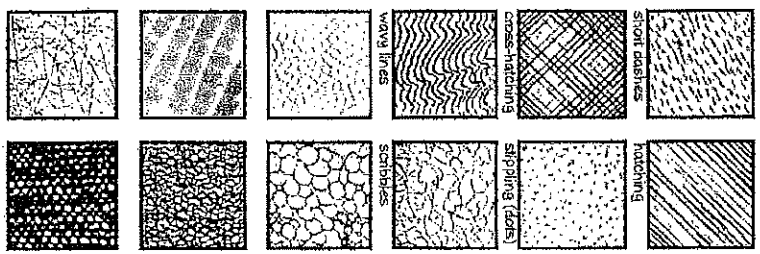
# Student Art Guide

HELPING ART STUDENTS EXCEL

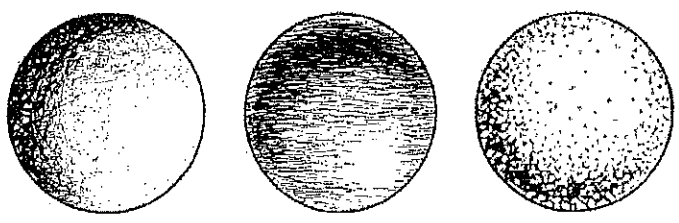
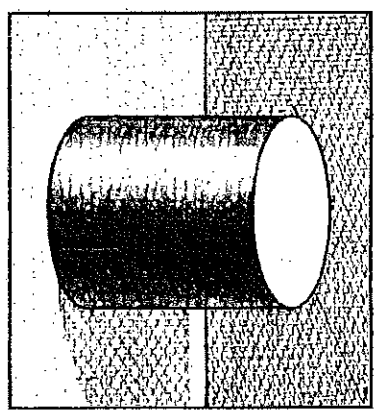
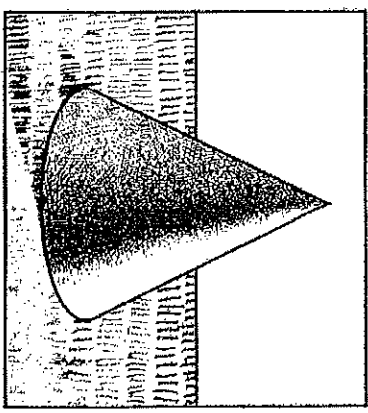
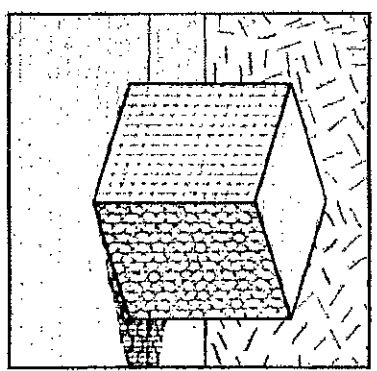
This worksheet is part of *Line Drawing: A Guide for Art Students*

## Line Drawing Techniques

www.studentartguide.com



1. Use a different line technique to fill each of the 12 small boxes. Invent your own techniques to fill the last 8 boxes.
2. Use these techniques to apply tone to the geometric objects drawn to the right. Select your own light source.
3. Connect the dots below with three straight lines: one very light, one mid-tone, and one very dark.

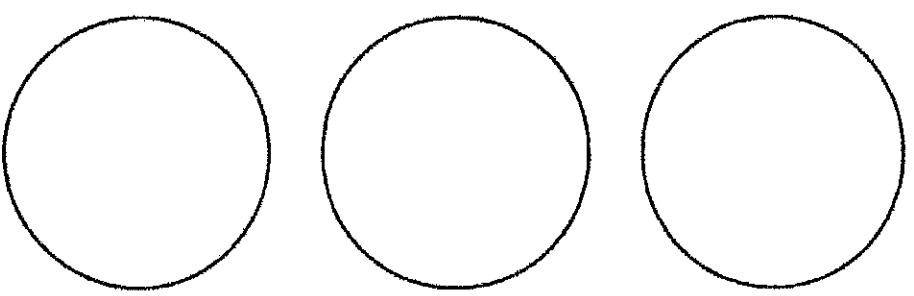
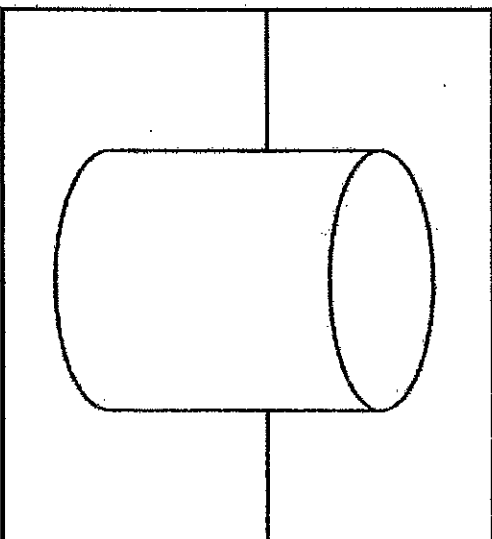
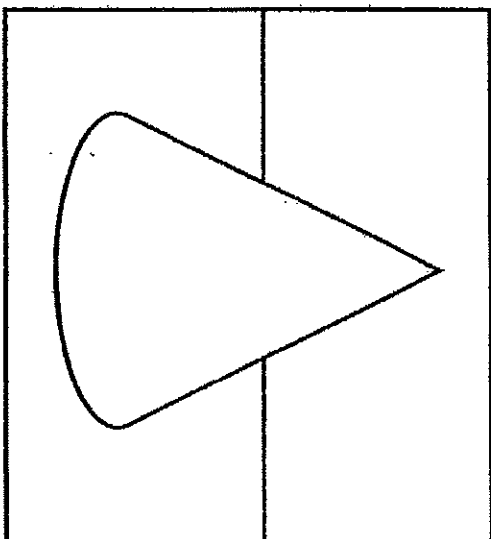
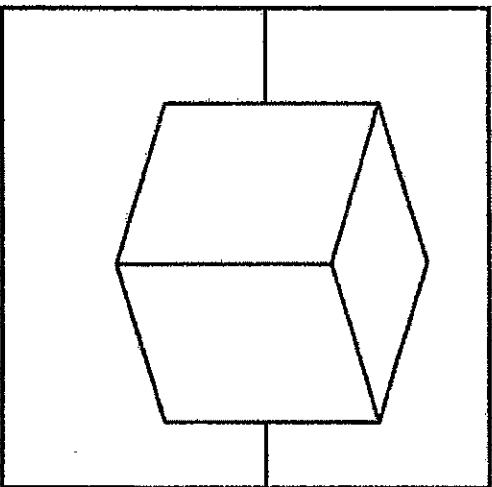




# Line Drawing Techniques

cross-hatching	hatching
parallel lines	stippling (dots)
scribbles	

1. Use a different line technique to fill each of the 12 small boxes. Invent your own techniques to fill the last 6 boxes.
2. Use these techniques to apply tone to the geometric objects drawn to the right. Select your own light source.
3. Connect the dots below with three straight lines: one very light, one mid-tone, and one very dark.





Mrs.Lugo week 3

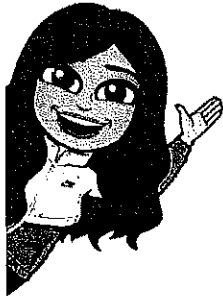
<https://www.studentartguide.com/articles/line-drawings>







Hello!



This Monday I will post Google Classroom announcements, athletic activities, and video call times if you want to check in (once I figure out zoom). Everything can be found in Google Classroom.

Daily Starters are optional but I will check them daily if you have anything to share with me. 🐾

-Coach Buhler

## Week of April 13-17



### ANNOUNCEMENTS

- Happy Birthday:
  - Jordan West April 19th!

## What are we learning this week?

### 🎯 Learning Targets:

- **STUDENT-ATHLETE WILL BECOME A LIFE-LONG LEARNER**
  - I will acquire the skills for academic excellence
  - I will acquire time-management skills
  - I will acquire the ability to communicate effectively

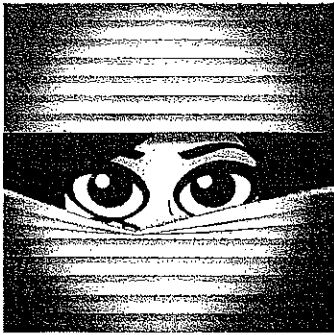
- Navigate online learning using Google Classroom.
- Check in daily. [HERE!](#)
- Start a Covid-19 Journal via google docs. [HERE!](#)
- Utilize FlipGrid for discussions, mini lessons, group activities, etc. [HERE!](#)  
→ Directions are in Google Classroom



### DAILY STARTERS (posted in Google Classroom)

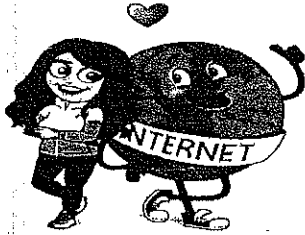
- **Tuesday/Wednesday:** What are the physical things I do really well in my sport?
- **Thursday/Friday:** What are the mental things I do really well in my sport?





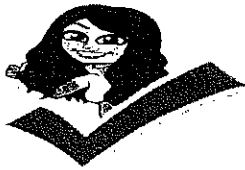
### History Has Its Eyes on You!

- Do not throw away your shot! The Covid-19 virus has had a ripple effect on a global level.
- You are a part of living history! Let's document it! Keep a journal over the next 5+ weeks. This can be handwritten, typed, in photographs, videos, or drawings. Record events, day to day activities, fears and feelings.
- Interview your parents, siblings, & friends. When this is all over **SAVE IT!** You are literally creating a **Primary** source of your own history.



### TIGERS STAY CONNECTED

- [Click Here](#) for the Flipgrid Grid.
- Record 3 Workouts of the Day In your FlipGrid.



### Reminders:

- Drop off any school issued Lady Tiger Athletics clothing on Mondays from 11am-1pm!

## Is it Gym Time? Let's Workout!

### Daily Workouts! Complete 3 Sets of Each

#### Monday:

- 15 Burpees
- 15 Body Squat
- 15 Split Jumps
- 15 Calf Raises
- 30 Bicycles

#### Tuesday:

- 15 Push-up
- 15 Inverted Row
- 15 Chin Ups
- 30 sec Side Planks
- 30 sec Push Up Planks

#### Wednesday:

- Speed Work
- 1 Mile Run

#### Thursday:

- 15 Box Jumps
- 15 Sumo Squats
- 15 Tuck Jumps
- 15 Lateral Lunges
- 30 Flutter Kicks
- 30 Toe Touches

#### Friday:

- 15 Inchworm Push-ups
- 15 Pull-ups
- 15 Plate Hand Step Ups
- 15 Dips
- 30 sec Plank to Push-up Hold
- 30 Lying Heel Touch Side Crunch



