Name_____

Date_____

8th Grade

Week Two

April 6-10

Mount Pleasant Junior High

English

Week 2: April 6-April 10, 2020

Directions: Read the following passages and answer the questions that follow.

The Great Stink

In 1858, London was caught in the grip of a horrifying health crisis: Its largest river was overflowing with poop.

by Allison Friedman

Let's journey to the city of London, England, in the summer of 1858. Horse-drawn carriages clipclop through the streets. Ladies wearing giant, tentlike skirts glide past shop windows. Kids stand on street corners, selling newspapers and cigars and fried fish.

But you don't notice any of that. All you can think about is the overpowering, stomach-turning, eye-watering smell of poop.

As you will soon discover, the entire city is caught in the grip of a stinky crisis. For years, Londoners have been dumping human waste into the Thames [TEMZ], the great river that rushes through the city. Now, London is suffering the hottest summer in recent history. The steaming heat is cooking the filthy river into a bubbling, foul-smelling stew. Newspapers are calling this crisis "the Great Stink."

The problem isn't merely gross. It's also deadly. Over the past 50 years, tens of thousands of people have died from drinking the polluted water of the River Thames. Can the Great Stink force the city to clean up the Thames before thousands more are sickened?

The Problem of Poop

For as long as humans have walked the earth, figuring out what to do with human waste has been one of our greatest challenges. In ancient South Asian cities, clay pipes and brick channels carried waste away from homes. An intricate web of stone sewers lay underneath the ancient city of Rome to take waste out of the city. In China some 1,000 years ago, sewage was pumped through dome-shaped tunnels.

Until the early 1800s, London's system for dealing with waste was fairly simple. Most homes had a bathroom. People did their business on a wooden box with a hole that sat above an underground pit called a cesspool. These cesspools were usually 6 feet deep and 4 feet wide. When they were full, a "night soil man" would shovel out the waste and sell it to farmers to use as fertilizer. (Poop was known as night soil because it was carted away in the middle of the night, when the powerful odor wouldn't disturb people. But in the 19th century, London—and all of England—was changing. Thousands were leaving their farms to work at factories in cities.

Between 1800 and 1850, London's population more than doubled. By the middle of the century, London was the biggest city in the world, with 2 million people.

Soon there was too much night soil to collect and not enough farmers to buy it. More and more people were forced to empty their cesspools into the city's creaky old sewers. The sewers, however, were never designed for human waste—they were built to drain rainwater into the Thames to prevent flooding.

To make matters worse, a dazzling new invention was becoming increasingly popular: the flush toilet. Waste could now be magically washed away with the pull of a chain. But because toilets used a lot of water, they caused the cesspools to overflow. To avoid a goopy mess, people began connecting their toilets directly to the sewers—and therefore to the river.

Overloaded with human waste, the Thames grew thick, brown, and foul. Over time, the smell became a stench, and the stench became a reek. And then, in the scorching summer of 1858, it became a crisis.

A Whiff on the Wind

Londoners back then were no strangers to filth. Soot from factories blackened the air. Mountains of dung from thousands of horses choked the streets. Families crammed into tiny apartments thick with the smell of sweat. And everywhere was garbage: broken dishes, rotting food, animal bones.

Still, the Great Stink of 1858 was an odor more putrid than the city had ever experienced. Londoners fainted in the streets. People miles away threw up after catching a whiff on the wind. Government leaders, who worked in a building beside the Thames, were seen fleeing with tears streaming from their eyes.

Londoners weren't just disgusted by the stink—
they were terrified. At the time, it was widely believed that diseases spread through miasma: dirty, smelly air. And the most feared disease of all? Cholera, a violent stomach sickness that could kill a person within 24 hours. London had already suffered three major cholera epidemics. More than 30,000 people had died. Londoners worried that the Great Stink would unleash a new wave of death across the city.

What few people in 1858 understood was that it wasn't the smell of the river that was deadly; it was the water. Poop is crawling with germs that can cause dozens of diseases, including cholera. The poop-filled Thames was London's main source of drinking water.
People had essentially been gulping down poison.

Something Had to Be Done

Even if government leaders didn't understand exactly why the Great Stink was dangerous, they knew something had to be done

fast. With handkerchiefs pressed to their noses, they quickly passed a law mandating the construction of a new sewer system. The sewers would run underground alongside the river rather than into it, carrying waste out of the city and away from where people lived. (In later years, treatment plants were added to clean the waste, making it safe to release into the environment.)

It took thousands of workers, 318 million bricks, 3.5 million pounds of concrete, and what would be $6 billion in today's money to construct London's new sewer system.

The sewer system officially opened in 1865. And soon the Thames was poop free.

In 1866, one final cholera **epidemic** struck London, but it was limited to a neighborhood that had not yet been connected to the new sewer system. This helped people begin to realize that pollute d water, not miasma, was the source of cholera and other diseases. By the 1870s, cholera had vanished from the city.

A New Crisis

London's new sewer system inspired similar projects in cities around the world, including in U.S. cities like New York. Many parts of those systems are still being used today, more than a century later. Over the years, however, these antique sewers have started to fall apart. Since the 1800s, many city populations have continued to multiply. Climate change is triggering heavier storms that overload pipes with rainwater.

Under these pressures, the original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow. In some places, waste has been oozing into the drinking water supply.

Many experts say we may be approaching a new sewage crisis. If we don't take action, we could soon be holding our noses through the Great Stink Part 2.

Toilets of the Future

These toilets could help solve one of the world's most serious problems: how to safely get rid of human waste.

by Mackenzie Carro

Here in the U.S., most of us probably don't think much about toilets. We go, we flush, we wash our hands, we move on. But what if your home didn't have a toilet? What if none of the homes in your town had a toilet? What would happen to all that waste? Before long, there would be a crisis, just as there was in London back in 1858.

Today, 4.5 billion people around the world do not have access to safe sanitation—that is, a way to dispose of human waste that won't harm people or the environment. As a result, untreated human waste ends up in food and water sources. According to the World Health Organization, hundreds of thousands of people die every year from diseases related to unsafe sanitation. Millions more are sickened.

This sanitation crisis mainly affects developing countries, which tend to have high levels of poverty. It might seem like the answer is to build more toilets and sewer systems in these places, but it's not that simple. Conventional sewer systems require a lot of money to build and a lot of water to operate. Many developing countries don't have enough of either.

The U.S. faces sanitation challenges too. In the U.S., some aging sewers are crumbling under the strain of too many people using them. Some towns are running out of fresh water.

Could one of these innovative waterless toilets be the solution to today's sanitation challenges?

Self-powering toilet

The Nano Membrane toilet gets rid of waste by burning it. When you close the lid, the waste drops into a pan. From there, liquid waste—aka urine—is filtered into clean water that can be used for watering plants, but not for drinking. Any solid waste—aka poop—is burned into ash. The best part? The whole process generates enough electricity to power the toilet, as well as other, small devices—like your smartphone.

Worm toilet

The Tiger Toilet breaks down waste with worms. Beneath the toilet, and out of view of users, lives a colony of tiger worms. These critters eat organic waste— including feces. As the worms digest waste, harmful bacteria is removed. In the end, all that's left is a mix of water, carbon dioxide, and some harmless worm poo that can be used as fertilizer.

Composting toilet

Another new toilet turns waste into fertilizer using heat. Here's how it works: Human waste is kept in a chamber attached to the toilet. The temperature inside the chamber is very high. This high heat, along with oxygen, spurs the growth of bacteria that naturally breaks down waste over time. Eventually, what's left can be used as fertilizer in gardens and backyards. But be careful: not all composting toilets produce fertilizer that is safe to use for growing food.

1. Using context clues, what does the bolded word "epidemic" mean in "The Great Stink?"

_____

_____

2. Using context clues, what does the bolded word "putrid" mean in "The Great Stink?"

_____

_____

3. Choose one piece of text evidence from "The Great Stink" that best supports the statement below. Then, complete the sentence to explain your choice.

"The 19th century was a rapid time of change in London."

A – "Kids stand on street corners, selling newspapers and fried catfish."
B – " When they were full, a 'night soil man' would shovel out the waste and sell it to farmers to use as fertilizer."
C – "Between 1800 and 1850, London's population had more than doubled."

I chose _____ because _____

_____

4. Reread the section, "Problem of Poop." Which statement below best expresses a central idea of this selection?

A – Human waste can be used as fertilizer.
B – At the time of the Great Stink, London was home to 2 million people.
C – Finding ways to dispose of human waste has been a challenge for a long time.
D – Flushing toilets caused the Great Stink.

5. Read the details from the section "A New Crisis" listed below. On the lines under the details, write a central idea that these details support.

- "Under these pressures, the original sewers—once a dazzling modern wonder—have begun to leak, break, clog and overflow.
- "In some places, waste has been oozing into the drinking water supply."
- "Over the years, however, these antique sewers have started to fall apart."

6. What does the phrase, "necessity is the mother to invention" mean to you? (5-8 sentences)

7. What makes the articles "The Great Stink" and "Toilets of the Future" different? How do they compare?

ALGEBRA

Finding Slope from 2 Points

Alg WK 2

Slope Formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Special Cases:

$\frac{0}{\#} \rightarrow$ slope = 0 $\qquad$ $\frac{\#}{0} \rightarrow$ slope is undefined

Ex: Find the slope of the line that passes through the points (-9, -3) and (7, -7)

$$m = \frac{-7 - (-3)}{7 - (-9)} = \frac{-4}{16} = \boxed{-\frac{1}{4}}$$

Slope-Intercept Form

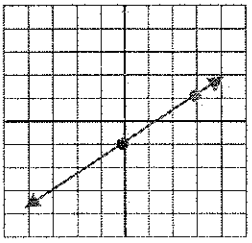
$y = mx + b$

m = slope & b = y-intercept

Graphing from Slope-Intercept Form:

1. Make a point at the y-intercept.
2. Use the slope $\left(\frac{\text{rise}}{\text{run}}\right)$ to make more points.
3. Connect the points to form a line.

Ex: Graph $y = \frac{2}{3}x - 1$



y-intercept is -1
slope = $\frac{2}{3}$, (so from the y-intercept go up 2 & right 3)

Standard Form

$Ax + By = C$

A, B, & C are integers & A is not negative

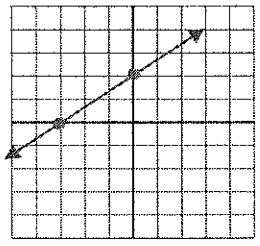
Graphing Using Intercepts:

1. Find the x-intercept by substituting 0 for y.
2. Find the y-intercept by substituting 0 for x.
3. Make a point at each intercept and then connect the points to form a line.

Ex: Graph $2x - 3y = -6$

x-intercept: $2x - 3(0) = -6$
$2x = -6 \rightarrow x = -3$
$(-3, 0)$

y-intercept: $2(0) - 3y = -6$
$-3y = -6 \rightarrow y = 2$
$(0, 2)$



Point-Slope Form

$y - y_1 = m(x - x_1)$

m = slope & (x_1, y_1) is a point on the graph

Converting Point-Slope Form to Slope-Intercept Form:

1. Distribute m.
2. Move y_1 to the other side of the equation.

Converting Slope-Intercept Form to Standard Form:

1. Bring the x term to the left.
2. If there are fractions in the equation, multiply everything through by the least common denominator.
3. If A is negative, multiply everything through by -1.

Ex: Write the equation of the line passing through the points (-1, 2) and (3, 4) in point-slope form. Then convert it to slope-intercept and standard form.

$$m = \frac{4 - 2}{3 - (-1)} = \frac{2}{4} = \frac{1}{2}$$

Point-Slope Form: $\boxed{y - 2 = \frac{1}{2}(x + 1)}$

Convert to Slope-Intercept Form:

$\rightarrow y - 2 = \frac{1}{2}x + \frac{1}{2} \rightarrow \boxed{y = \frac{1}{2}x + \frac{5}{2}}$

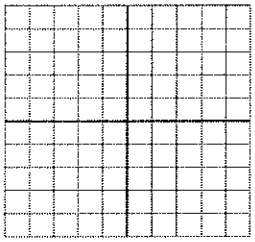
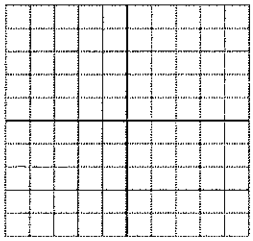
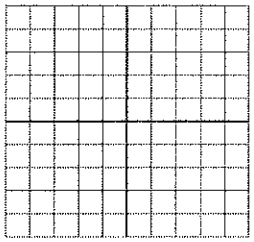
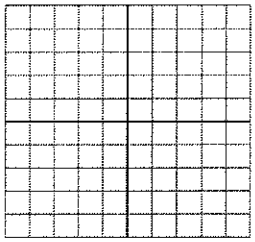
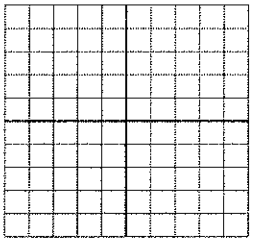
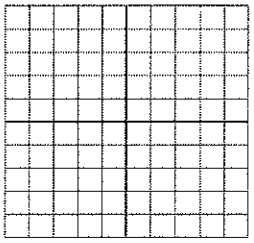
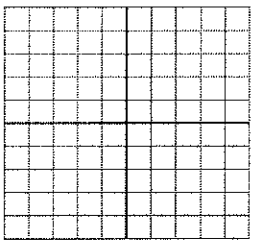
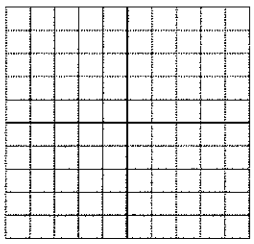
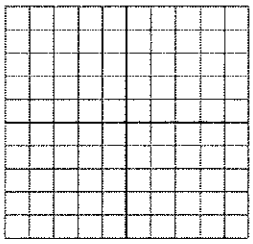
Convert to Standard Form:

$\rightarrow -2\left(-\frac{1}{2}x + y = \frac{5}{2}\right) \rightarrow \boxed{x - 2y = -5}$

Find the slope of the line that passes through the pair of points.

25. (9, -3) and (9, -8)	26. (-8, 5) and (3, -6)	27. (7, -1) and (15, 9)

Graph each line.

28. $y = -\frac{3}{2}x + 2$ 	29. $y = x - 3$ 	30. $y = \frac{1}{3}x + 5$ 
31. $2x - y = -2$ 	32. $x + y = 4$ 	33. $3x + 4y = -12$ 
34. $y + 3 = \frac{1}{2}(x + 2)$ 	35. $y - 1 = \frac{2}{3}(x - 3)$ 	36. $y - 2 = 0$ 

Write the equation of the line in point-slope, slope-intercept, and standard form.

37. Line passing through point (3, 5) with a slope of 1	38. Line passing through points (-4, 2) and (0, 3)	39. Line passing through points (1, 3) and (2, 5)

Parallel & Perpendicular Lines

Parallel Lines have the *same slope* but different y-intercepts.

Perpendicular Lines have *opposite reciprocal slopes.*

Writing Equations of Parallel Lines:

1. Find the slope of the original line by first converting it to slope-intercept form if it is in Standard Form. The slope of the line parallel will have that same slope.
2. Use the given point along with the slope you just found to write the equation of the line in point-slope form.
3. Convert the point-slope form equation to slope-intercept form.

Ex: Write the equation of the line that is parallel to the line $y = 3x - 5$ and passes through the point $(-2, 4)$.

$y = 3x - 5$

$m = 3$, so slope of parallel line is 3, too

→ $y - 4 = 3(x + 2)$

→ $y - 4 = 3x + 6$

→ $\boxed{y = 3x + 10}$

Writing Equations of Perpendicular Lines:

1. Find the slope of the original line. The slope of the line perpendicular will have the opposite (negative) reciprocal slope.
2. Use the given point along with the slope you just found to write the equation of the line in point-slope form.
3. Convert the point-slope form equation to slope-intercept form.

Ex: Write the equation of the line that is perpendicular to the line $x - 3y = -6$ and passes through the point $(-1, 1)$.

$x - 3y = -6$ → $-3y = -x - 6$

→ $y = \frac{1}{3}x + 2$

$m = \frac{1}{3}$, so slope of perpendicular line is -3

→ $y - 1 = -3(x + 1)$

→ $y - 1 = -3x - 3$

→ $\boxed{y = -3x - 2}$

Linear Inequalities

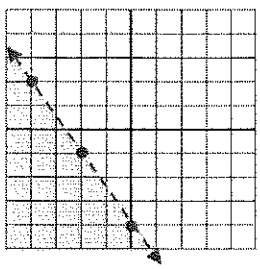
1. Convert the linear inequality in slope-intercept form. Be sure the y is on the left and remember to flip the inequality sign if you multiply or divide by a negative.
2. Graph the line as if it is an equation, except use a dotted line if the inequality sign is $<$ or $>$. If the sign is $\leq$ or $\geq$, use a regular solid line.
3. Shade above the line for a "greater than" inequality ($>$ or $\geq$). Shade below the line for a "less than" inequality ($<$ or $\leq$). (For vertical lines, shade to the right for greater than and to the left for less than).

Ex: $-3x - 2y > 8$

$$\begin{array}{r} -3x - 2y > 8 \\ +3x \qquad +3x \\ \hline -2y > 3x + 8 \end{array}$$

$$\frac{-2y}{-2} > \frac{3x}{-2} + \frac{8}{-2}$$

$$y < -\frac{3}{2}x - 4$$



Determine whether the lines are parallel, perpendicular, or neither. Justify your answer.

40. $y = 2x - 8$
$y = \frac{1}{2}x + 6$

41. $y = x$
$x + y = -2$

42. $3x + 2y = 18$
$y + 4 = -\frac{3}{2}(x - 4)$

Write the equation of the line parallel to the given line that passes through the given point in slope-intercept form.

43. $y = -4x - 2$; $(0, -1)$

44. $2x - y = -4$; $(2, 5)$

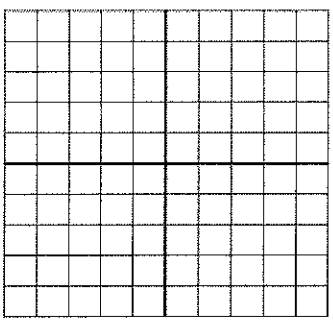
Write the equation of the line perpendicular to the given line that passes through the given point in slope-intercept form.

45. $y = \frac{2}{3}x - 9$; $(-6, -2)$

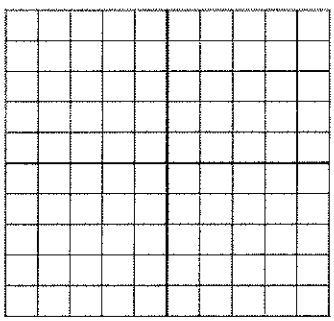
46. $4x + y = -6$; $(4, 5)$

Graph the solution to each linear inequality.

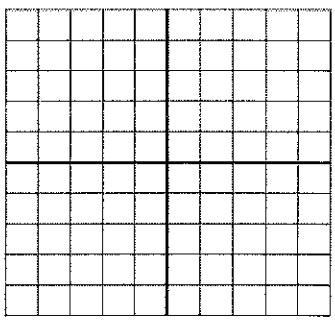
47. $y \leq -4x - 3$



48. $2x - y < 1$



49. $x + 3y > 3$



MATH

8th Grade Math Department
Category 3 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 closet app we have found to our classroom calculators.

- Category 3 Review will focus on transformations, volume and surface area, and pythagorean theorem.

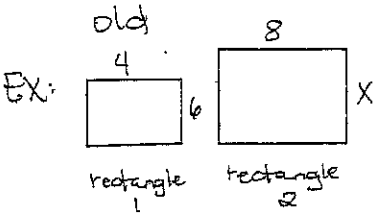
- If you will be working online the following assignments will be available to you through google classroom.

- 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

Scale Factor (K)

$K = \frac{\text{new}}{\text{old}}$

EX:



$K = \frac{\text{new}}{\text{old}} = \frac{8}{4} = (2)$

To find x, multiply scale factor by the corresponding value.

EX: $X = 6K$ or $X = 6(2) = (12)$

Volume + Surface Area

what is the base of the shape? Use that formula in place of "B"

AREA	
Triangle	$A = \frac{1}{2}bh$
Rectangle or parallelogram	$A = bh$
Trapezoid	$A = \frac{1}{2}(b_1 + b_2)h$
Circle	$A = \pi r^2$

SURFACE AREA	Lateral	Total
Prism	$S = Ph$	$S = Ph + 2B$
Cylinder	$S = 2\pi rh$	$S = 2\pi rh + 2\pi r^2$

VOLUME	
Prism or cylinder	$V = Bh$
Pyramid or cone	$V = \frac{1}{3}Bh$
Sphere	$V = \frac{4}{3}\pi r^3$

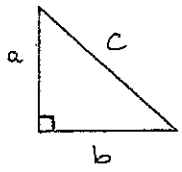
r = radius (d ÷ 2)

h = height

P = Perimeter of the Base

B = Area of the Base

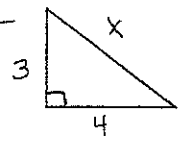
Pythagorean Theorem: $a^2 + b^2 = c^2$



a, b > legs

c - hypotenuse (longest side)

EX #1:



$a^2 + b^2 = c^2$

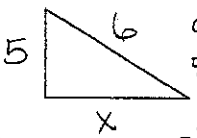
$3^2 + 4^2 = c^2$

$9 + 16 = c^2$

$\sqrt{25} = \sqrt{c^2}$

$(5 = c)$

EX #2:



$a^2 + b^2 = c^2$

$5^2 + x^2 = 6^2$

$25 + x^2 = 36$

$-25 \quad -25$

$x^2 = 11$

$(x = \sqrt{11})$

Translations (slide):

$(x, y) \rightarrow (x \pm a, y \pm b)$

Reflections (flip):

Flip over X axis $(x, y) \rightarrow (x, -y)$

Flip over Y axis $(x, y) \rightarrow (-x, y)$

Dilations (enlargement or reduction):

$(x, y) \rightarrow (kx, ky)$

Rotations (turn):

90° cw / 270° ccw $(x, y) \rightarrow (y, -x)$

180° cw / 180° ccw $(x, y) \rightarrow (-x, -y)$

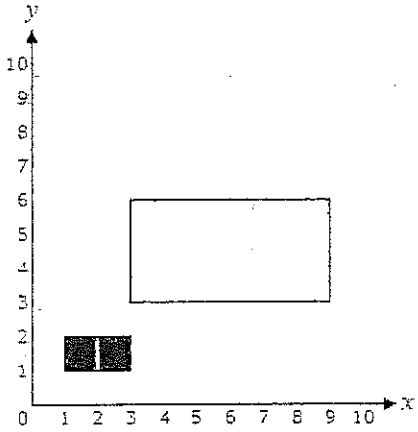
270° cw / 90° ccw $(x, y) \rightarrow (-y, x)$

360° cw / 360° ccw $(x, y) \rightarrow (x, y)$

Transformations

Practice

1. Which algebraic expression matches the dilation from the large rectangle to the small rectangle?



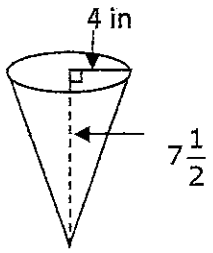
A. $(x, y) \rightarrow (2x, 2y)$

B. $(x, y) \rightarrow \left(\frac{1}{3}x, \frac{1}{3}y\right)$

C. $(x, y) \rightarrow (3x, 3y)$

D. $(x, y) \rightarrow \left(\frac{1}{2}x, \frac{1}{2}y\right)$

2. Lucia made a funnel out of a piece of paper. What is the volume of the funnel?



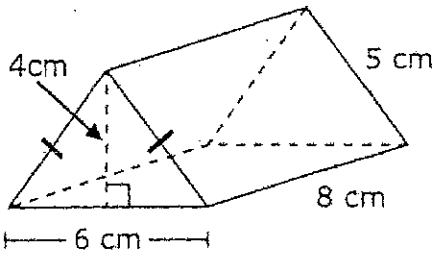
F 94.2 in^3

G 31.4 in^3

H 62.8 in^3

J 125.7 in^3

3. A triangular prism and its dimensions are shown in the diagram. What is the lateral surface area of this triangular prism in square centimeters?



A 128 cm^2

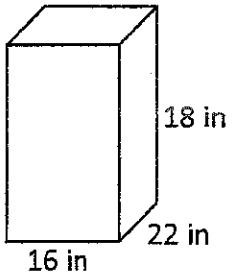
B 192 cm^2

C 120 cm^2

D 144 cm^2

4. Elizabeth wants to wrap the box below with shipping paper.

How many square inches of shipping paper will Elizabeth need to cover the entire box?



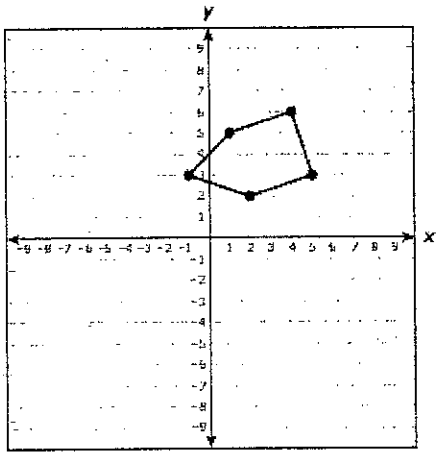
F 6336 square inches

G 2072 square inches

H 1368 square inches

J 704 square inches

5. The coordinate grid shows a pentagon. The pentagon is translated 1 unit to the left and 10 units down to create a new pentagon.



Which rule describes this transformation?

A. $(x, y) \rightarrow (x - 1, y - 10)$

B. $(x, y) \rightarrow (x + 1, y - 10)$

C. $(x, y) \rightarrow (x - 1, y + 10)$

D. $(x, y) \rightarrow (x + 1, y + 10)$

6. Which representation of a transformation on a coordinate grid does not preserve congruence?

F. $(x, y) \rightarrow (\frac{1}{7}x, \frac{1}{7}y)$

G. $(x, y) \rightarrow (x + 7, y + 7)$

H. $(x, y) \rightarrow (x, -y)$

J. $(x, y) \rightarrow (y, -x)$

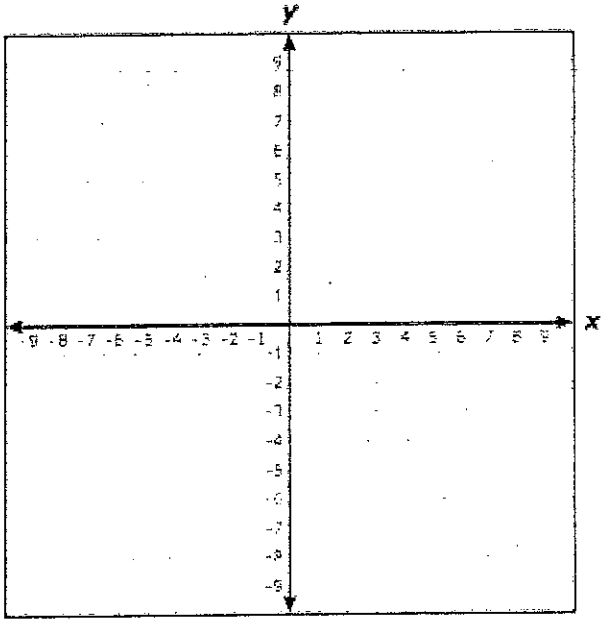
7. The coordinates of the vertices of a quadrilateral are P (1, 2), R (1, 4), S (3, 4), and T (4, 2). Quadrilateral $PRST$ is reflected across the y-axis to create quadrilateral $P'R'S'T'$. Which rule describes this transformation?

A. $(x, y) \rightarrow (x, -y)$

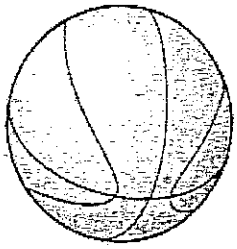
B. $(x, y) \rightarrow (-x, y)$

C. $(x, y) \rightarrow (y, -x)$

D. $(x, y) \rightarrow (-y, x)$



8. A basketball has a diameter of 9 inches. Which of the following is the best estimate of the volume of the basketball?



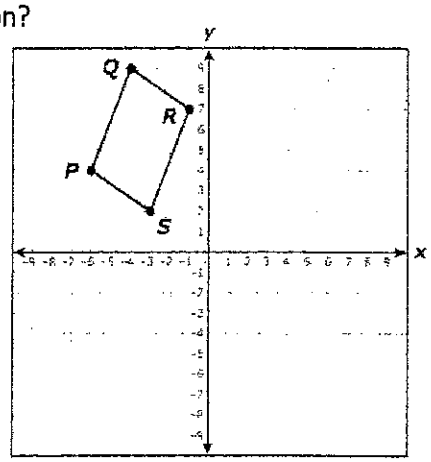
F 3050 in^3

G 380 in^3

H 1000 in^3

J 65 in^3

9. Parallelogram PQRS is rotated 90° clockwise about the origin to create parallelogram P'Q'R'S'. Which rule describes this transformation?



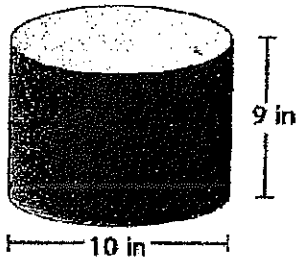
A. $(x, y) \rightarrow (x, -y)$

B. $(x, y) \rightarrow (-x, y)$

C. $(x, y) \rightarrow (y, x)$

D. $(x, y) \rightarrow (y, -x)$

10. A cylinder is 9 inches tall and has a diameter of 10 inches.



What is the lateral surface area of the cylinder?

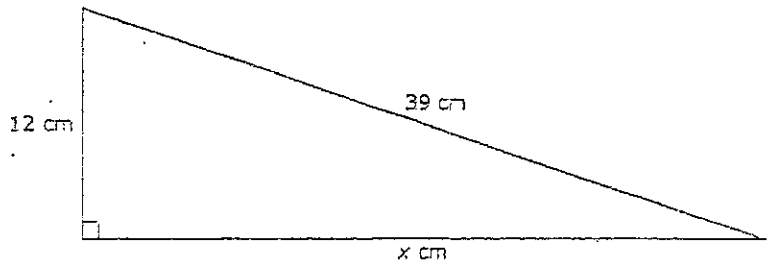
F 90 in^2

G 141.37 in^2

H 439.82 in^2

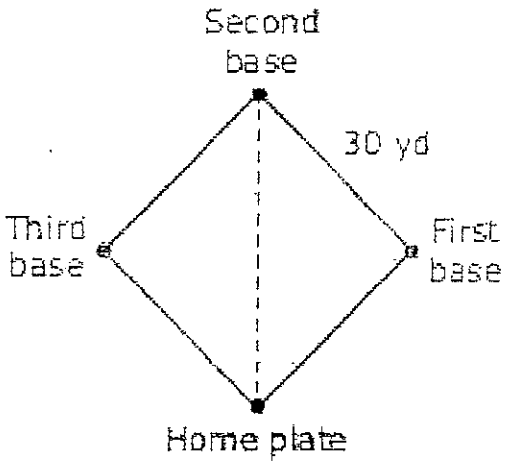
J 282.74 in^2

11. A right triangle and two of its side lengths are shown in the diagram. Which measurement is closest to the value of x in centimeters?



A. 37.1 cm
B. 40.8cm
C. 27 cm
D. 51 cm

12. A major-league baseball diamond is shaped like a square with side lengths of 30 yards, as shown in the diagram. Which measurement is closest to the distance in yards between home plate and second base?



F 60 yd
G 42 yd
H 54 yd
J 120 yd

HISTORY

Jamestown Colony (1607)

Original Jamestown Colony

Jamestown is Founded (1607)

In 1607, the **Virginia Company** of London financed an expedition to Chesapeake Bay that included more than 100 colonists. They sailed up the James River until they found a spot to settle. They named the first permanent English settlement Jamestown in honor of King James.

From the start, the Jamestown colonists endured terrible hardships. The site of the colony was swampy and full of malaria-carrying mosquitoes. This disease made the colonists sick with fever. Many also became ill from drinking the river water. To make matters worse, the London Company had incorrectly told the settlers that the colony would be rich in gold. They spent their days searching for gold rather than building houses and growing food.

The climate was also a hardship. The colonists soon learned that the summers were hot and humid and the winters bitter cold. As one colonist recalled, "There were never Englishmen left in a foreign country in such misery as we were in this newly discovered Virginia."

Note Questions:

1. What is the significance of the Jamestown colony?

2. What hardships did the Jamestown colonists have to endure?

Captain John Smith

Jamestown Grows

By January 1608, only 38 colonists remained alive. Later that year, **John Smith**, a soldier and adventurer, took control. To make sure the colonists worked, Smith announced, "He that will not work shall not eat." Smith's methods worked. He ordered an existing wall extended around Jamestown. He also persuaded the Powhatan tribe to trade their corn to the colonists. In 1609, Smith was injured in a gunpowder explosion and returned to England. That same year, 800 more English settlers arrived in Jamestown.

Because of growing tensions between the settlers and Native Americans, the **Powhatan** stopped trading food and attacked the settlers. The settlers did not dare leave the fort. During the "starving time," the colonists ate rats, mice, and snakes. Only 60 of the colonists were still alive by 1610.

Notes Question:

1. How did Captain John Smith help the Jamestown colony?

John Rolfe planting tobacco

Tobacco Saves Jamestown

In 1612, **John Rolfe** developed a high-grade tobacco that the colonists learned to grow. It quickly became very popular in England. The success of tobacco growing changed Jamestown in many ways. The Virginia Company thought of the colonists as employees. The colonists, however, wanted a share of the profits.

The company responded by letting settlers own land. Settlers worked harder when the land was their own. The company offered a 50-acre land grant for each man, woman, or child who could pay his or her way to the colony. Those who could not afford passage to America were encouraged to become **indentured servants**. These men and women sold their labor to the person who paid their passage to the colony. After working for a number of years, they were free to farm or take up a trade of their own.

The colonists soon became annoyed at the strict rule of the governor, who represented the Virginia Company's interests back in London. To provide for more local control, the company decided that burgesses, or elected representatives, of the colonists would meet once a year in an assembly. The **House of Burgesses**, created in 1619, became the first representative assembly in the American colonies.

Notes Questions:

1. How did John Rolfe help the Jamestown colony?

2. How did some people pay for their passage to Jamestown?

3. What is the House of Burgesses and why was it created?

Summary:
Summarize the events, people and hardships of the Jamestown Colony using the language of a historian.

Check it Out!

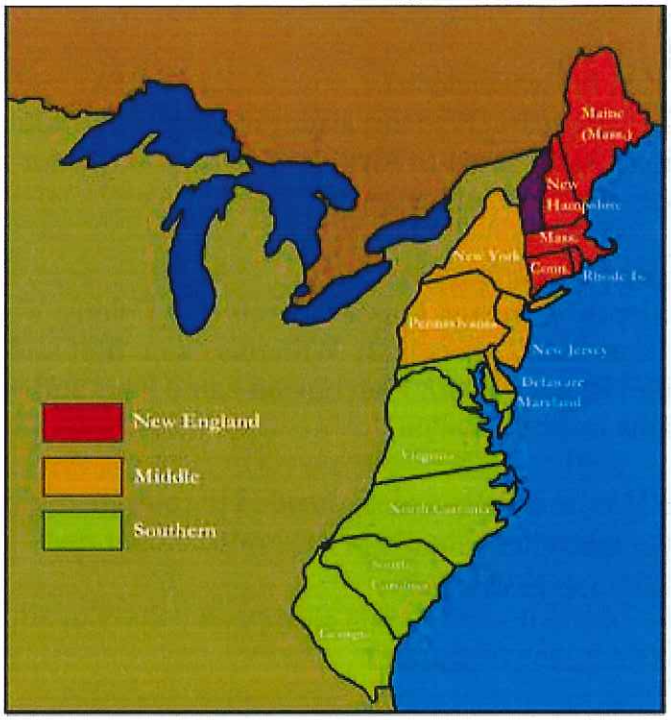
Article and Video

Researchers: Jamestown settlers resorted to cannibalism (Click here to go to article)

By **Elizabeth Landau**, CNN

The 13 British Colonies

Regional Overview



New England Colonies

Colonies- Massachusetts, New Hampshire, Rhode Island, Connecticut

Climate/Geography – Colonists in the New England colonies endured bitterly cold winters and mild summers. Land was flat close to the coastline but became hilly and mountainous farther inland. Soil was generally rocky, making farming difficult. Cold winters reduced the spread of disease.

Religion – The New England colonies were dominated by the Puritans, reformers seeking to "purify" Christianity, who came over from England to practice religion without persecution. Puritans followed strict rules and were intolerant of other religions, eventually absorbing the separatist Pilgrims in Massachusetts by 1629. Life in New England was dominated by the church, and there were severe consequences for those who failed to attend, or, those who spoke out against the Puritan ways. Singing and celebrating holidays were among things prohibited in Puritan New England.

Economy – New England's economy was largely dependent on the ocean. Fishing (especially codfish) was most important to the New England economy, though whaling, trapping, shipbuilding, and logging were important also. Eventually, many New England

shippers grew wealthy buying slaves from West Africa in return for rum, and selling slaves to the West Indies in return for molasses. This process was called the "triangular trade."

Important Founders:
William Bradford (Plymouth Colony in Massachusetts)
William Bradford was an English Separatist (Pilgrim) leader in Plymouth Colony. He was a signer of the Mayflower Compact and served as Plymouth Colony Governor five times covering about thirty years between 1621 and 1657.

Roger Williams and Anne Hutchinson (Rhode Island)
Williams and Hutchinson were residents of Puritan Massachusetts Bay Colony. They began to preach ideals that the Puritans didn't agree with. Williams came first and was banished. He went south and founded Rhode Island. Hutchinson came later and when she was banished, she joined Williams in Rhode Island.

Roger Williams believed that the Massachusetts Colony needed to tolerate different religious beliefs and the church and government should be separate. Roger fled Massachusetts and found the settlement of Providence.
Later, it became the colony of Rhode Island it was the first European colony to allow people to different religious beliefs (Religious tolerance).

Anne Hutchinson was brought to trial in Massachusetts because she believed people should pray directly to God rather than depend upon church teachings. She was forced to leave Massachusetts so she traveled to Rhode Island and started the settlement of Portsmouth.

Thomas Hooker
Thomas Hooker was a prominent Puritan colonial leader, who founded the Colony of Connecticut after disagreeing with Puritan leaders in Massachusetts. He believed in government by the people, for the people. Connecticut ratified the Fundamental Orders of Connecticut which would be the first written constitution in America. It marked the beginnings of American democracy,and Thomas Hooker was a major influence on it. The government of the United States today is more similar to that of Connecticut than to that of any of the other thirteen colonies.

Middle Colonies

Colonies- New York, New Jersey, Pennsylvania, Delaware

Climate/Geography – The Middle colonies spanned the Mid-Atlantic region of America and were temperate in climate with warm summers and cold winters. Geography ranged from coastal plains along the coastline, piedmont (rolling hills) in the middle, and mountains farther inland. This area had good coastal harbors for shipping. Climate and land were ideal for agriculture. These colonies were known as the "breadbasket" because of the large amounts of barley, wheat, oats, and rye that were grown here.

Religion – Religion in the Middle Colonies was varied as no single religion seemed to dominate the entire region. Religious tolerance attracted immigrants from a wide-range of foreign countries who practiced many different religions. Quakers, Catholics, Jews, Lutherans and Presbyterians were among those religious groups that had significant numbers in the middle colonies.

Economy – The Middle Colonies enjoyed a successful and diverse economy. Largely agricultural, farms in this region grew numerous kinds of crops, most notably grains and oats. Logging, shipbuilding, textiles production, and paper-making were also important in the Middle Colonies. Big cities such as Philadelphia and New York were major shipping hubs, and craftsmen such as blacksmiths, silversmiths, cobblers, wheelwrights, wigmakers, milliners, and others contributed to the economies of such cities.

Important Founders:
William Penn (Pennsylvania)**William Penn** was born in London, England. He was educated in theology and the law. In his twenties he converted to the Quaker religion and was jailed several times for his resistance to the Church of England. In 1681, he received a royal charter to form a new colony in America, to be named Pennsylvania; he envisioned this territory as a peaceful refuge for members of all religious beliefs (religious tolerance).

Southern Colonies

Colonies- Maryland, Virginia, North and South Carolina, Georgia

Climate/Geography – The Southern Colonies enjoyed warm climate with hot summers and mild winters. Geography ranged from coastal plains in the east to piedmont farther inland. The westernmost regions were mountainous. The soil was perfect for farming and the growing season was longer than in any other region. Hot summers, however, propagated diseases such as malaria and yellow fever.

Religion – Most people in the Southern Colonies were Anglican (Baptist or Presbyterian), though most of the original settlers from the Maryland colony were Catholic, as Lord Baltimore founded it as a refuge for English Catholics. Religion did not have the same impact on communities in the New England colonies or the Mid-Atlantic colonies because people lived on plantations that were often distant and spread out from one another.

Economy – The Southern economy was almost entirely based on farming. Rice, indigo, tobacco, sugarcane, and cotton were cash crops. Crops were grown on large plantations where slaves and indentured servants worked the land. In fact, Charleston, South Carolina became one of the centers of the American slave trade in the 1700's.

Important Founders:
James Oglethorpe (Georgia) As visionary, social reformer, and military leader, James Oglethorpe conceived of and implemented his plan to establish the colony of Georgia as a haven for debtors. His idea began when a friend was placed in prison for not being able to pay his debts which resulted in Oglethorpe's friend dying of smallpoxs that he contracted from another prisoner. As a result, Oglethorpe began a campaign for prison reform. Prison reform did not, however, solve the larger plight of the large number of poor people in England. Oglethorpe and several colleagues from the jails committee began exploring the possibility of creating a new colony in America. They believed that if given a chance, England's "worthy poor" could be transformed into farmers, merchants, and artisans.

Colonial Region Checklist

Place the correct colonial region beside the stated characteristic. Also Colony Name if Known.

(NEW ENGLAND COLONIES= **NC**, MIDDLE COLONIES=**MC**, SOUTHERN COLONIE=**SC**)

Lots of Slaves	
Large wheat Farms	
Lumber production and shipbuilding/fishing	
Large plantations	
Thin rocky soil	
Mild winters	
Short Growing seasons	
Subsistence farming	

Diversity in population	
Economic activity based on Agriculture	
Harsh cold winters	
Bread Basket Colonies	
Founded for Religious Reasons	
Founded for Economic Reason	
Quakers found here	
Catholics found here	

Debtors found here	
Dutch Settled here 1st	
Location of 1st Colony	
Pilgrims Settled here	
Eight Nobles were founders here	
William Penn was here	
Thomas Hooker was here	
Rich Soil and good weather for growing cash crops	

SCIENCE

8th grade science

All students please join the SCIENCE google classroom page

Class Code: ojdp6fc

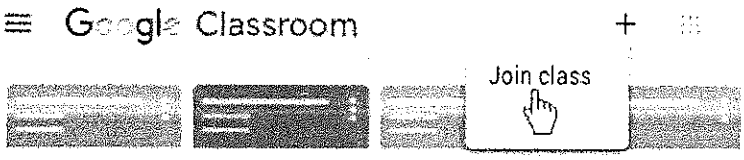
Login to google under your stu account.

Firstname.lastname@stu.mpisd.net

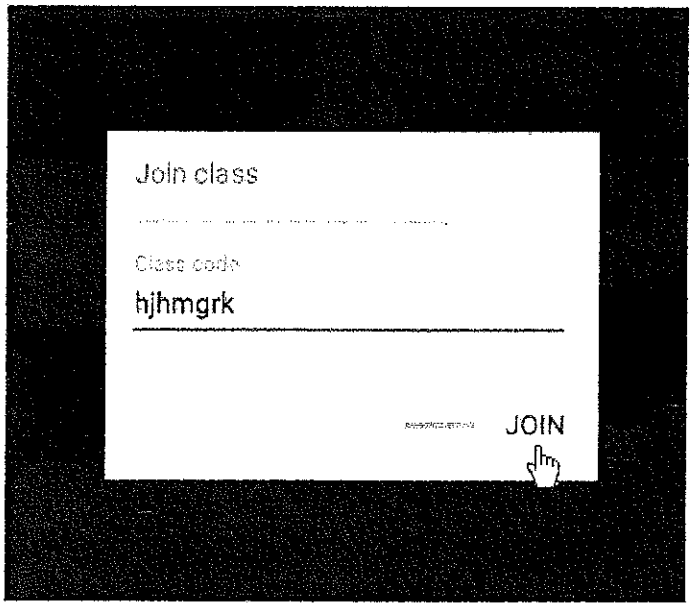
Password: (your birthday)MMDDYYYYmpd

Join a class with a class code

1. Go to classroom.google.com.
2. At the top, click Add + > Join class.



3. Enter the class code ojdp6fc and click Join.



Unit 9

CORAL REEF STRUCTURE AND FOOD WEB

Worksheet

Name _____ Period _____

Within every ecosystem, physical conditions such as temperature and the amount of sunlight affect and are affected by the organisms in an environment, such as plants, animals, and microscopic organisms. Each dynamic ecosystem consists of many interacting parts, each using energy and producing wastes. Many kinds of living things make up the coral reef community: producers (plants), filter feeders (animals that take in microscopic plants and animals from the water), grazers (algae eaters), predators (animals that eat other animals), and scavengers (animals that eat the remains of dead creatures). A complex food web connects all of these living things.

Examine carefully the diagram on the following page. At the highest point (crest) of the reef, large, dome-shaped, brain coral forms huge boulders. Colorful parrotfish, their large front teeth fused together like a parrot's beak, scrape algae off the coral rock. Nearby, the queen angelfish sports an electric-blue, crown-like growth and eats sponges, which in turn feed on microscopic life. On the outer reef, Elkhorn coral extends its branches like signposts and withstands the constant pounding of the waves. Sea fans expose themselves to the prevailing current to receive food, while predators like the barracuda ready themselves for the hunt. Between the reef and the shore is a quieter environment known as the lagoon. Here the turtle grass is dense, protecting the young members of reef species. Schools of French grunts, who stay among the corals all day, move to the grass beds at night to hunt for small crustaceans like grass shrimp. Nearby, a pink-tipped anemone floats food its way by waving its tentacles.

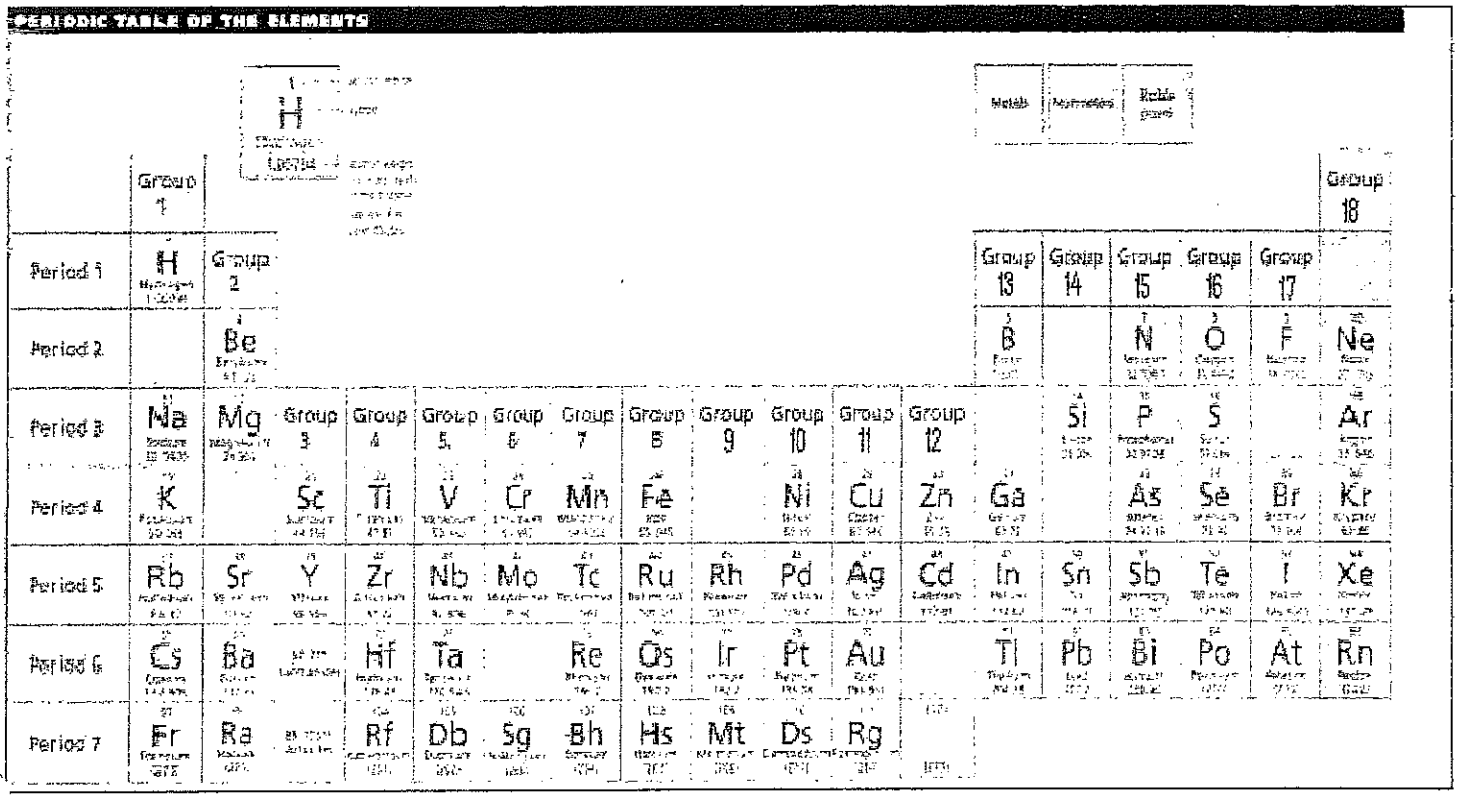
Complete the following activity by filling in the appropriate the answers. These organisms are an example of members of a vast coral reef food web. When you are finished, we will discuss the correct answers.

Corals such as the _____1_____ coral live in the highest part of the reef, the _____2_____. Corals are tiny animals that live together in large, stony colonies as big as boulders. Inside the coral are _____3_____ that produce food and oxygen using sunlight. A _____4_____ grazes on the coral to get food. The crashing waves circulate _____5_____ and _____6_____. A nearby _____7_____ is a filter feeder that uses waves to capture its dinner. The _____8_____ is a predator that patrols the _____9_____ reef, looking for other fish. In the calmer waters of the _____10_____, a little _____11_____ scavenges through the lagoon. Watch out! A hungry _____12_____ is coming closer. Nearby, a _____13_____ waves its tentacles to take in its food.

BEACH
LAGOON
REEF CREST
OUTER REEF
Turtle grass
Coral algae
Brain coral
Parrotfish
Waves circulate food and oxygen
Sea fan
Elkhorn coral
Grass shrimp
Pink-tipped anemone
French grunt
Sponge
Queen angelfish
Barracuda

6th grade Science

FIND THE MISSING ELEMENTS



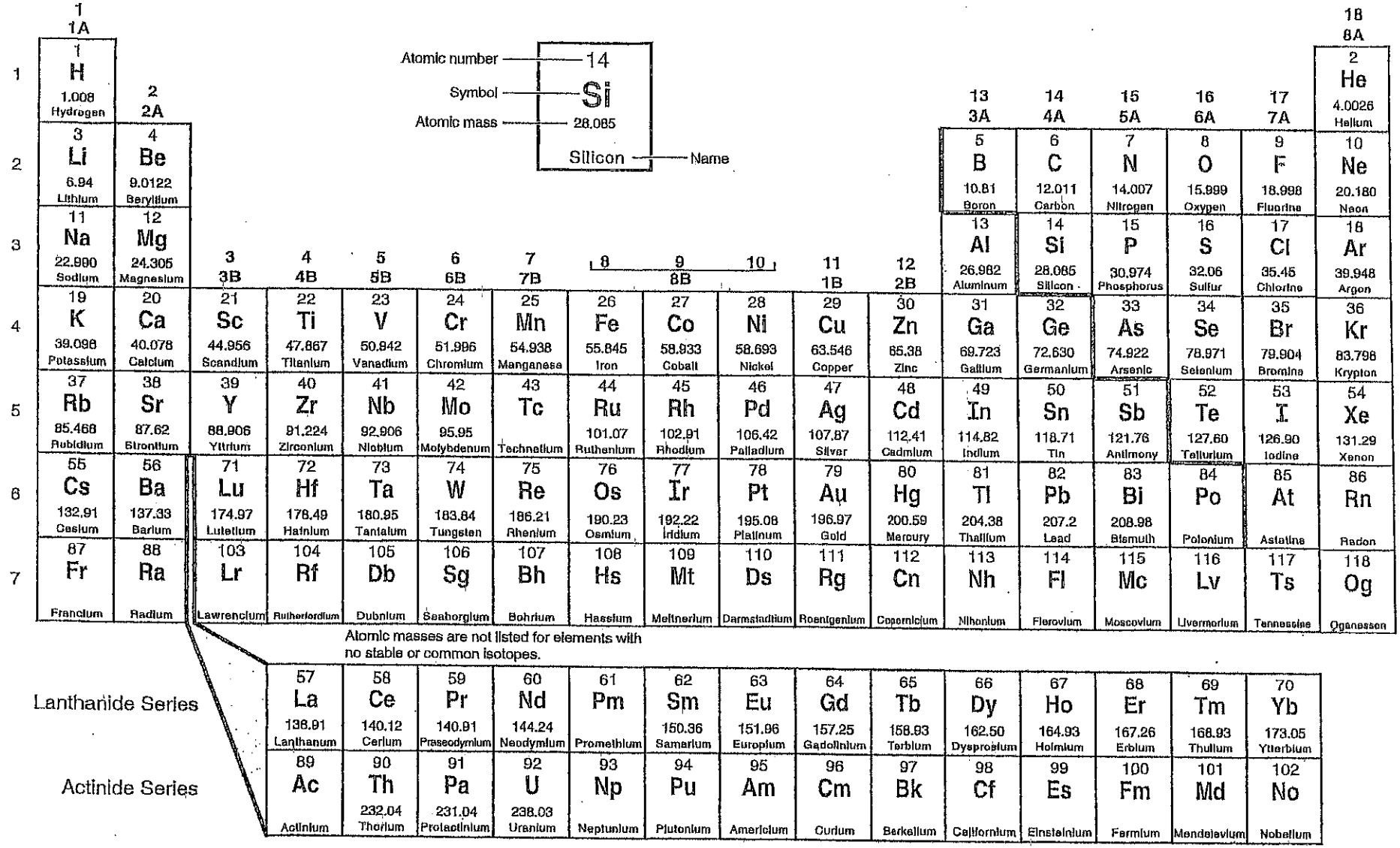
Common Periodic Properties of the Elements in the Periodic Table	
Group 1: very reactive and good conductors	Group 18: all non-reactive gases
Group 2: gray-white metals and good conductors	Atomic mass increases as you go down in groups.
Group 3 to 12: transition metals and good conductors.	In the metals, the elements become less reactive as you move from left to right.
Group 17: very reactive gases	There are two liquid elements.

Use the periodic table and chart above to find the missing elements. Identify the element and write its atomic number, symbol, and atomic mass (amu) on the blanks below.

1. Missing Element #1: It is a metal that is very reactive: _____
2. Missing Element #2: It is a reactive gas: _____
3. Missing Element #3: It is a heavy transition metal that is not very reactive : _____
4. Missing Element #4: It is a gas that is not reactive at all:_____
5. Missing Element #5: It is a light non-metal: _____

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS

PERIODIC TABLE OF THE ELEMENTS



	1 1A	2 2A	3 3B	4 4B	5 5B	6 6B	7 7B	8	9 8B	10	11 1B	12 2B	13 3A	14 4A	15 5A	16 6A	17 7A	18 8A
1	1 H 1.008 Hydrogen																	2 He 4.0026 Helium
2	3 Li 6.94 Lithium	4 Be 9.0122 Beryllium											5 B 10.81 Boron	6 C 12.011 Carbon	7 N 14.007 Nitrogen	8 O 15.999 Oxygen	9 F 18.998 Fluorine	10 Ne 20.180 Neon
3	11 Na 22.990 Sodium	12 Mg 24.305 Magnesium											13 Al 26.982 Aluminum	14 Si 28.085 Silicon	15 P 30.974 Phosphorus	16 S 32.06 Sulfur	17 Cl 35.45 Chlorine	18 Ar 39.948 Argon
4	19 K 39.098 Potassium	20 Ca 40.078 Calcium	21 Sc 44.956 Scandium	22 Ti 47.867 Titanium	23 V 50.942 Vanadium	24 Cr 51.996 Chromium	25 Mn 54.938 Manganese	26 Fe 55.845 Iron	27 Co 58.933 Cobalt	28 Ni 58.693 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.723 Gallium	32 Ge 72.630 Germanium	33 As 74.922 Arsenic	34 Se 78.971 Selenium	35 Br 79.904 Bromine	36 Kr 83.798 Krypton
5	37 Rb 85.468 Rubidium	38 Sr 87.62 Strontium	39 Y 88.906 Yttrium	40 Zr 91.224 Zirconium	41 Nb 92.906 Niobium	42 Mo 95.95 Molybdenum	43 Tc Technetium	44 Ru 101.07 Ruthenium	45 Rh 102.91 Rhodium	46 Pd 106.42 Palladium	47 Ag 107.87 Silver	48 Cd 112.41 Cadmium	49 In 114.82 Indium	50 Sn 118.71 Tin	51 Sb 121.76 Antimony	52 Te 127.60 Tellurium	53 I 126.90 Iodine	54 Xe 131.29 Xenon
6	55 Cs 132.91 Cesium	56 Ba 137.33 Barium	71 Lu 174.97 Lutetium	72 Hf 178.49 Hafnium	73 Ta 180.95 Tantalum	74 W 183.84 Tungsten	75 Re 186.21 Rhenium	76 Os 190.23 Osmium	77 Ir 192.22 Iridium	78 Pt 195.08 Platinum	79 Au 196.97 Gold	80 Hg 200.59 Mercury	81 Tl 204.38 Thallium	82 Pb 207.2 Lead	83 Bi 208.98 Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon
7	87 Fr Francium	88 Ra Radium	103 Lr Lawrencium	104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110 Ds Darmstadtium	111 Rg Roentgenium	112 Cn Copernicium	113 Nh Nihonium	114 Fl Flerovium	115 Mc Moscovium	116 Lv Livermorium	117 Ts Tennessine	118 Og Oganesson

Lanthanide Series	57 La 138.91 Lanthanum	58 Ce 140.12 Cerium	59 Pr 140.91 Praseodymium	60 Nd 144.24 Neodymium	61 Pm Promethium	62 Sm 150.36 Samarium	63 Eu 151.96 Europium	64 Gd 157.25 Gadolinium	65 Tb 158.93 Terbium	66 Dy 162.50 Dysprosium	67 Ho 164.93 Holmium	68 Er 167.26 Erbium	69 Tm 168.93 Thulium	70 Yb 173.05 Ytterbium
Actinide Series	89 Ac Actinium	90 Th 232.04 Thorium	91 Pa 231.04 Protactinium	92 U 238.03 Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium

Source: International Union of Pure and Applied Chemistry

Updated 2017

NAME_____PERIOD____

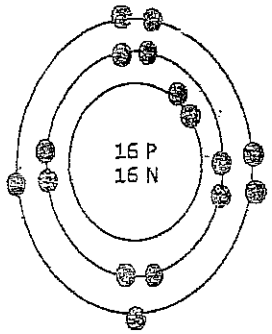
INTERPRETING ATOMIC STRUCTURE

Black Dots are electrons

1.

____ atomic number
____ atomic mass

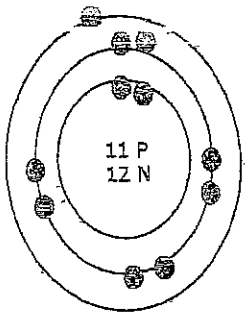
____ number of valence electrons



2.

____ atomic number
____ atomic mass

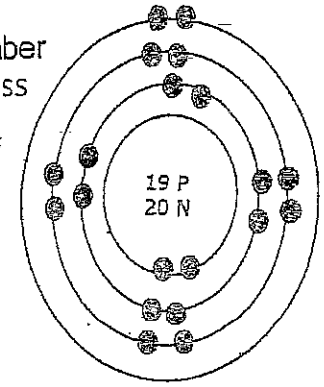
____ number of valence electrons



3.

____ atomic number
____ atomic mass

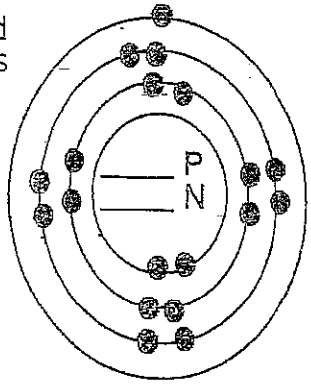
____ number of valence electrons



4.

Fill in the nucleus so that the atomic number is 18 and the atomic mass is 40

____ number of valence electrons

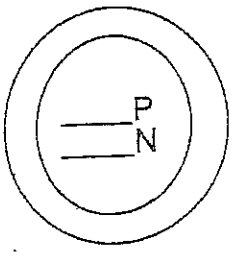


5.

Fill in the nucleus so that the atomic number is 4 and the atomic mass is 9

How many valence electrons will it have?

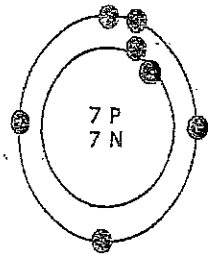
____



6.

____ atomic number
____ atomic mass

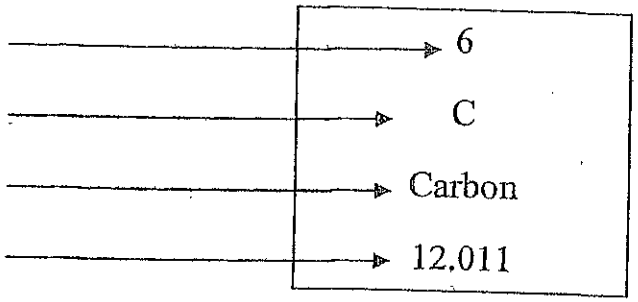
____ number of valence electrons

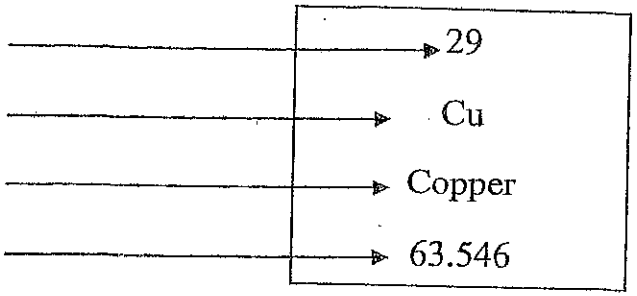


Reviewing the Periodic Table

The Periodic Table organizes information about elements and their properties. Each box on the Periodic Table represents one element. The number at the top of the box is the atomic number. The number at the bottom of the box is the atomic mass. The first letter of the chemical symbol for each element is a capital letter. If there is a second letter it will always be in lower case. Elements are classified as metals, metalloids and nonmetals. On the left side of the Periodic Table we find the metals. On the right side of the Periodic Table we find the nonmetals. The elements along the zigzag line are called metalloids. The vertical columns on the Periodic Table are called groups or families. The horizontal rows on the Periodic Table are called periods.

Use the large square with Si in it to label the following boxes from the periodic table.





What's on the table?

Materials: Copy of the Periodic Table, colored pencils
Directions: Find the information below on your Periodic Table.

1. How many groups are on the periodic table?

   _____

2. How many periods are on the periodic table? _____

4. Find the zigzag line that starts in the group 13. Outline them purple.

5. On the right side of the zigzag line are the nonmetals. Outline them yellow.

6. Metals are located on the left side of the periodic table. The only element on the left side of the periodic table that is **NOT** a metal is hydrogen. Outline hydrogen in yellow.

7. The rest of the elements are metals. Outline them in green.

8. What is element found in group 1 and period 4? ___

9. In what group will you find copper? _____

10. In what period will you find silver? _____

11. What element has the symbol He? _____

12. What element has the symbol Cl? _____

13. What element has the symbol C? _____

14. How is chlorine classified? _____

15. How is silicon classified? _____

16. How is calcium classified? _____

How to Count Atoms

Worksheet

1. The **symbol** of an element represents one atom of that element.
   e.g., Ba =

2. A **subscript** is a number written at the **lower right** corner **behind the symbol** of an element. If there is more than one atom of the element, then a subscript is used to indicate the number of atoms.
   e.g., Cl_2 =

3. A **subscript outside a bracket** multiples all the elements inside the brackets.
   e.g., $Ca_3(PO_4)_2$ =

   Ca = _____
   P = _____
   O = _____

3. A **coefficient** is a number written **in front of a chemical symbol** and indicates the number of atoms of that element or number of molecules
   e.g., 3C = ____
   $2NaSO_4$ = _____ _____ _____
   A **subscript** is a number written **after an atom in a formula** and indicates the number of atoms of the kind in the molecule.
   e.g H_2SO_4 The subscript of H = 2 and the subscript of O = ____

Note: a coefficient multiples the number of atoms of each element in the formula

e.g.,
2 H_2O
_____ molecules of H_2O
_____ H (hydrogen)
_____ O (oxygen)

3 Na_2SO_4
_____ molecules of Na_2SO4
_____ Na (copper)
_____ S (sulphur)
_____ O (oxygen)

4 $Pb(NO_3)_2$
_____ molecules of $Pb(NO_3)_2$
_____ Pb (Lead)
_____ N (nitrogen)
_____ O (oxygen)

Counting Atoms

Worksheet
Count the atoms present in the different compounds by using the coefficients and subscripts.

K_2CO_3

Type of Atom	# of Atoms
_____	_____
_____	_____
_____	_____
Total	_____

$Ba_3(PO_4)_2$

Type of Atom	# of Atoms
_____	_____
_____	_____
_____	_____
Total	_____

Na_2CrO_4

Type of Atom	# of Atoms
_____	_____
_____	_____
_____	_____
Total	_____

3 $CaCl_2$

Type of Atom	# of Atoms
_____	_____
_____	_____
Total	_____

$NH_4C_2H_3O_2$

Type of Atom	# of Atoms
_____	_____
_____	_____
_____	_____
_____	_____
Total	_____

4 $Al_2(CO_3)_3$

Type of Atom	# of Atoms
_____	_____
_____	_____
_____	_____
Total	_____

$Pb(NO_3)_2$

Type of Atoms	# of Atoms
_____	_____
_____	_____
_____	_____
Total	_____

2 $(NH_4)_2Cr_2O_7$

Type of Atom	# of Atoms
_____	_____
_____	_____
_____	_____
_____	_____
Total	_____

ELECTIVES

Business Marketing Lesson

Week 2 (Monday March 30th to Friday April 3rd)

Students may choose either Option 1 or Option 2: You can do both if you like!! You can put your answers on the front & back of this paper.

Option 1:

If you have access to the internet, I want you to look up a current business article. After reading the article, write a two paragraph description of the company. This should be patterned after our presentations in class each Friday.

Option 2:

List 3 businesses that you could see yourself working for in the future & tell me why you chose that company.

Here is the link to the business marketing site if you'd like to login & work on current module.

https://learn.aeseducation.com/ Remember your login name is ID@student.mpisd.net & the password you created. If for some reason you can't login or forgot your password please email me jjones2@mpisd.net & I can reset both of them if needed. I know not all of our students aren't done with Personal Financial Literacy module so it's currently still open.

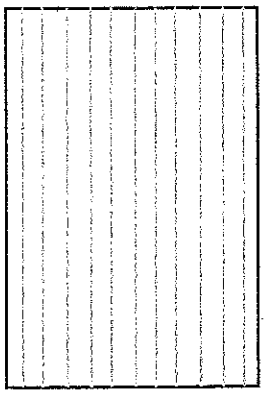
Mrs. Lugo AA I and AA II WK2

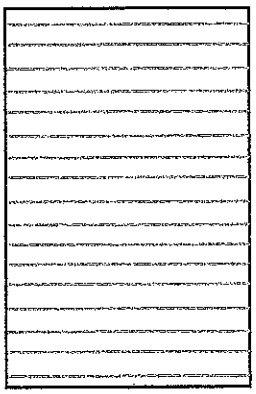
LINE

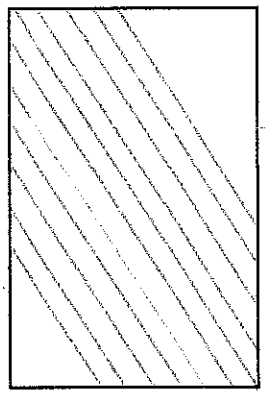
A mark made by a pointed tool, can be long, short, straight, curved, thick or thin. Lines can be geometric or organic.

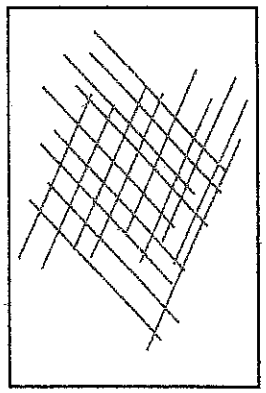
GEOMETRIC

Geometric lines are man-made. They can be horizontal, vertical, diagonal, jagged, etc.


VERTICAL LINES

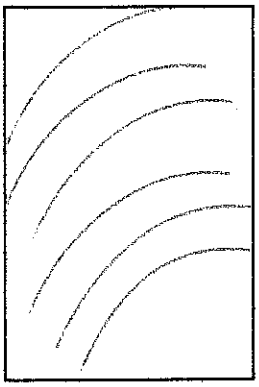

HORIZONTAL LINES

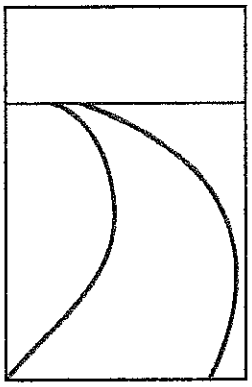

DIAGONAL LINES

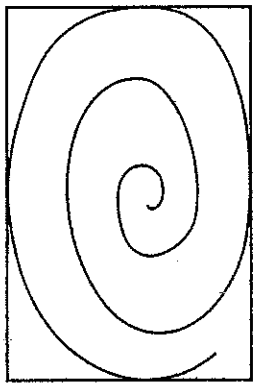

CROSS-HATCHED

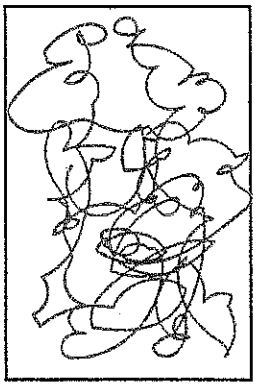
ORGANIC

Organic lines are curved and natural and are often seen in nature.


CURVED LINES

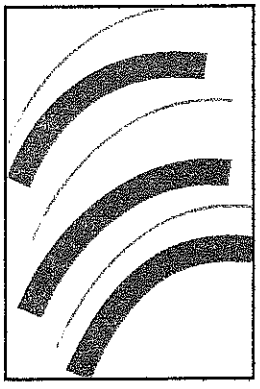

PERSPECTIVE LINES

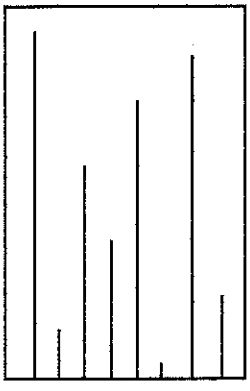

SPIRALING LINES

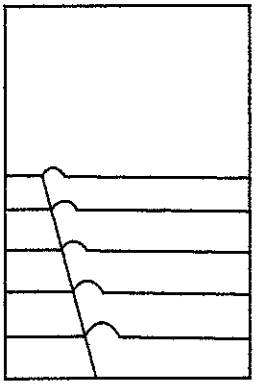

SCRIBBLED

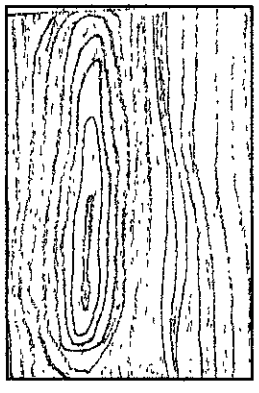
LINE VARIETY

Lines can vary in thickness, in length and can denote texture or movement in art.


THICKNESS


LENGTH


MOVEMENT


TEXTURE

Mrs. Lugo Art I and Art II

Name:_____

GEOMETRIC

Draw a line design using only geometric lines in the box below.

ORGANIC

Draw a line design using only organic lines in the box below.

VARIETY

Draw a line design using both geometric and organic line, vary the length, thickness etc.

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.

Dance I and Dance II (ADT)-

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.

Honors Band/Symphonic Band
(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
- Play some music games
- Watch some fun music videos
- Learn any song your choice
- http://www.musictechteacher.com/music_quizzes/music_quizzes.htm

Los artículos

Translate the following words from English to Spanish. Remember to use the article and noun in their correct singular/plural form.

1. The book
2. The house
3. The horse
4. The tables
5. The beach
6. The eyes
7. The cat
8. The dogs
9. The chairs
10. The skirt
11. The apple
12. The buildings
13. The museum
14. The plants
15. The banks
16. The windows
17. The man
18. The schools
19. The woman
20. The shoes

Translate the following words from Spanish to English. Remember to use the article and noun in their correct singular/plural form.

1. La camisa
2. El padre
3. Un anillo
4. Las niñas
5. El espejo
6. Una amiga
7. Un vaso
8. La prueba
9. Una uña
10. El niño
11. Las botellas
12. Unos platos
13. Las bolsas
14. Unas camisas
15. Las madres
16. Un diccionario
17. Los cuadernos
18. El sombrero
19. Unas peras
20. La boca

Spanish

Los artículos

Complete with the corresponding definite article:

Completa con el artículo definido que corresponda:

El – La – Los – Las.

1. _____ niño rápido.
2. _____ escuelas pequeñas.
3. _____ diccionario barato.
4. _____ mujer vieja.
5. _____ caballo lento.
6. _____ pruebas cortas.
7. _____ padre feliz.
8. _____ plantas grandes.
9. _____ edificios altos.
10. _____ uñas limpias.
11. _____ botellas sucias.
12. _____ anillos caros.
13. _____ falda larga.
14. _____ gatos locos.
15. _____ sillas negras.
16. _____ hombres viejos.
17. _____ boca grande.
18. _____ playa linda.
19. _____ niñas inteligentes.
20. _____ libro azul.

Complete with the corresponding indefinite article:

Completa con el artículo indefinido que corresponda:

Un – Una – Unos – Unas.

1. _____ bolsa nueva.
2. _____ faldas blancas.
3. _____ banco pequeño.
4. _____ platos amarillos.
5. _____ pera grande.
6. _____ vasos limpios.
7. _____ camisa verde.
8. _____ madre inteligente.
9. _____ espejo redondo.
10. _____ sombreros viejos.
11. _____ ojo rojo.
12. _____ zapatos grandes.
13. _____ manzana sabrosa.
14. _____ amigos rápidos.
15. _____ perros blancos.
16. _____ cuaderno viejo.
17. _____ ventanas sucias.
18. _____ mesa redonda.
19. _____ museo nuevo.
20. _____ casas feas.

Outdoor Adventure

This week we will continue learning about fishing and the skills it takes to be a good angler. Learning about our aquatic wildlife and understanding how these species live and function in their environment will help you know where to look, what they eat (predator vs prey) and what processes they go through in their life cycle (Spawn). There's a whole new world underneath the surface of the water and it's a world that has many similarities and many differences to the world we live in above the surface. Let's take a look at some of the main species we have in our local lakes and fisheries.

Blue Catfish

https://www.huntstats.com/blc.html

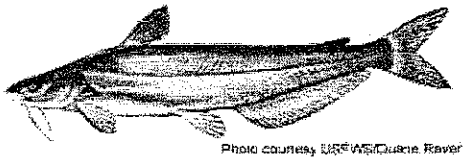


Photo courtesy USFWS/Ouachita River

Description

Ictalurus is Greek meaning "fish cat," and *furcatus* is Latin, meaning "forked," a reference to the species' forked tail fin. Blue catfish have a forked tail, and are sometimes very similar to channel catfish. However, only the Rio Grande population has dark spots on the back and sides. The number of rays in the anal fin is typically 30-35, and coloration is usually slate blue on the back, shading to white on the belly.

Angling Importance

The blue catfish is the largest freshwater sportfish in Texas. Where mature populations exist, 50-pounders are not unusual.

Typically, the largest fish are caught by trotliners, some of whom have landed specimens in excess of 115 pounds. The Texas rod-and-reel record is 100 pounds. Catfish is the second most preferred group of fish among licensed Texas anglers, and blues rank third behind channel and flathead catfish. Like the channel cat, the blue catfish is considered an excellent food fish.

Biology

Blue catfish are primarily large-river fish, occurring in main channels, tributaries, and impoundments of major river systems. They tend to move upstream in the summer in search of cooler temperatures, and downstream in the winter in order to find warmer water.

Their spawning behavior appears to be similar to that of channel catfish. However, most blue catfish are not sexually mature until they reach about 24 inches in length. Like channel catfish, the blue catfish pursues a varied diet, but it tends to eat fish earlier in life.

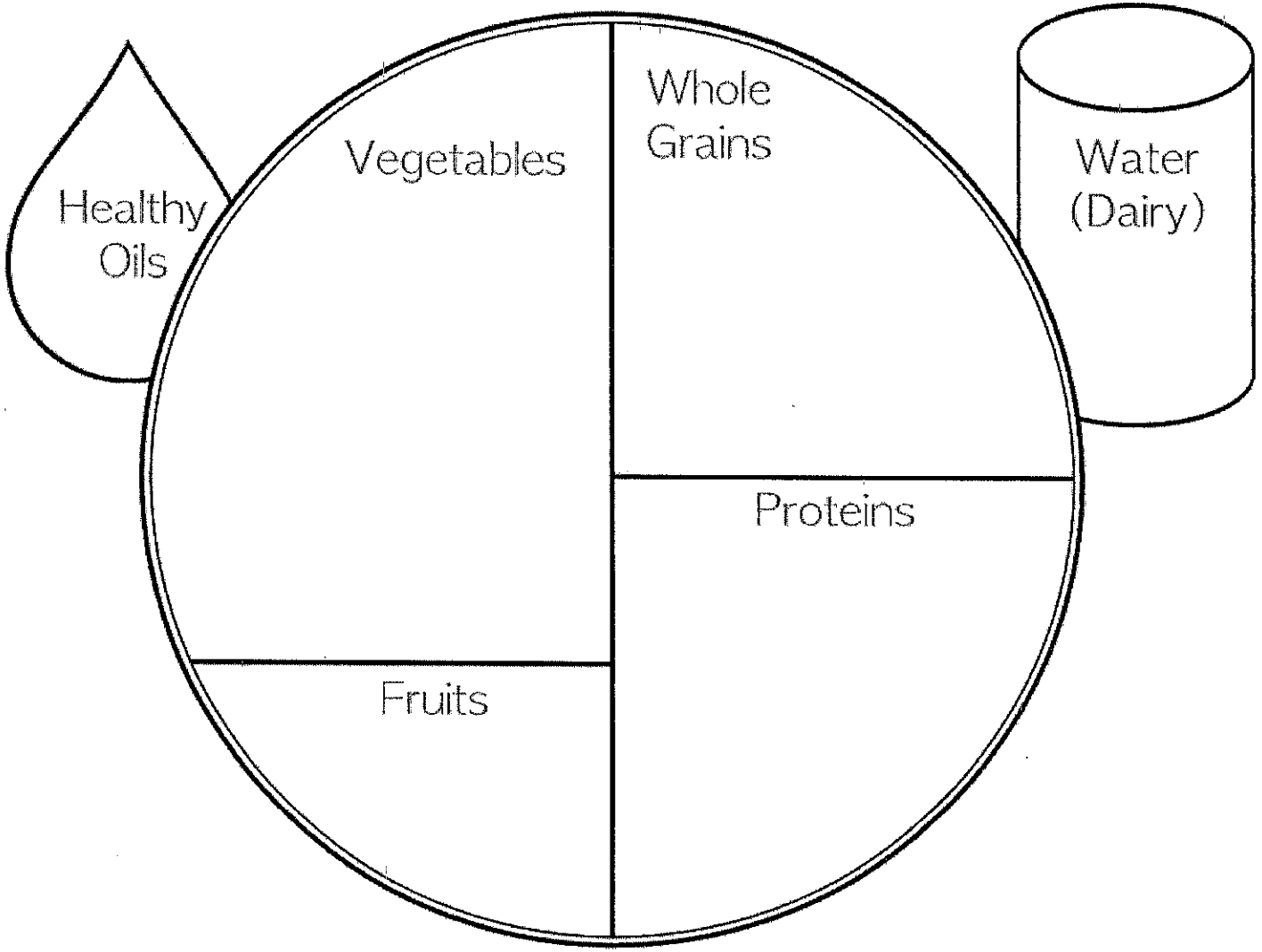
Definitions

Angler-
Aquatic-
Species-
Predator-
Prey-
Environment-
Spawn-

Name _____ _____ Date _____ Period _____

My Healthy Plate

Write each food you eat today in the correct area. Start by adding the breakfast you already ate.



Does your diet fit well into the My Plate template? Why or why not?

Health

STEM

WATERSHEDS

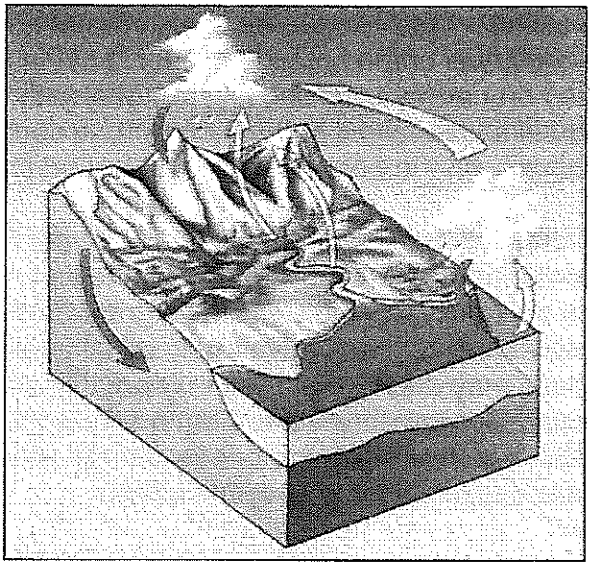
Reflect

You and every other known organism on the planet needs water to survive. In particular, all living things need a supply of clean drinking water. Where does your drinking water come from? What is the risk that your drinking water could run out or become contaminated? What can you do to help protect your drinking water supply?

The Water Cycle

About 70% of Earth's surface is covered with water. This water is stored in many different places, or **reservoirs**. These include liquid reservoirs on Earth's surface, such as oceans, lakes, ponds, streams, and rivers. There is also water in frozen reservoirs such as glaciers and polar ice caps. There is water in and below the ground, in the atmosphere, and in the bodies of organisms, including you!

Water circulates between these reservoirs through the water cycle. Water evaporates and rises as vapor into the atmosphere. Water vapor in the atmosphere condenses to form clouds. Liquid and solid water then fall back to Earth's surface as rain, snow, or other precipitation. Some water flows across Earth's surface as runoff; other water is absorbed into the ground. The areas on or below Earth's surface where this water collects are called **watersheds**. For example, when rainwater runs off of your backyard into a stream, your backyard is part of a watershed.



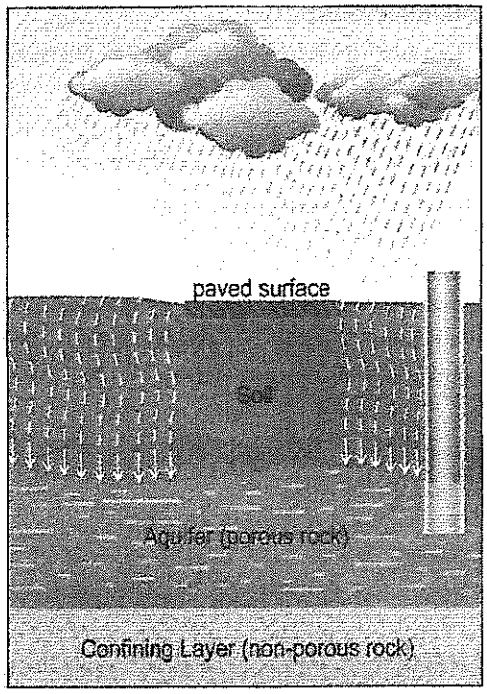
The water cycle describes how water travels across the ground (through **runoff**) and below the ground (as **groundwater**) into reservoirs such as oceans and lakes. Water evaporates from these reservoirs and rises as vapor into the atmosphere. Water vapor in the atmosphere forms clouds through **condensation**. Then it falls back to Earth as rain and snow through **precipitation**.

Groundwater

Like its name suggests, **groundwater** is water found in the ground. Groundwater is stored in underground reservoirs called **aquifers**. An aquifer is made of porous rock, with a layer of non-porous rock below. (**Porous** rock is full of holes, or **pores**, through which water can flow.) The layer of non-porous rock is called a **confining layer**. Groundwater is stored in the holes of the porous rock. It is kept in place by the non-porous confining layer underneath. Some aquifers also have another non-porous confining layer above, with the porous layer sandwiched in between.

Groundwater is a source of drinking water for many people throughout the world. If you have a water well in your backyard, the well draws groundwater from an aquifer. Some areas have many small aquifers. One house may draw water from one aquifer, and a house next door may draw water from a different aquifer. Other aquifers cover expansive areas—they may even supply water to several states.

For example, the Ogallala Aquifer, also known as the High Plains Aquifer, covers an area of 173,000 square miles. The Ogallala Aquifer supplies water to portions of eight different states: Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Wyoming, and Texas. About 27% of America's irrigated farmland uses water from the Ogallala Aquifer. About 82% of the people who live above the Ogallala Aquifer get their drinking water from this massive groundwater supply.



Water from rain and snow trickles through the porous rock to refill—or **recharge**—an aquifer. Paved surfaces such as parking lots block water from reaching the aquifer. A well at the right of the diagram reaches down into the aquifer to bring groundwater back up to Earth's surface.

Theatre Production class

The radio play **the Maltese Falcon** can be found on the link below, we will have a zoom video chat and study it together so you will have to load the **zoom app** on your phone and I will text you the times and meeting code. Please read the play before Wednesday.

http://genericradio.com/series/academyawardtheater

Theatre Arts classes

1. **Read a children's story either online or from a book at home.**
2. **After reading the book I what you to design the set on paper draw and color or use a picture collage to show your vision of how the stage should look for the play version of that story. (assignment for the week of Mar. 30-April 4, 2020).**
3. **Next write a four-scene skit that adapts the story in script form. You may have a narrator plus the characters. Please follow the format we have used in class for script writing. Fill free to change the setting, and time period of the story. (assignment for April 6-10, 2020).**

I'm missing all of you and I hope to see you soon!
Stay safe,
Mrs. Peel