

Tiered Activities To Alter the Depth of a Lesson

Subject Area:

Grade Level:

Topic:

	Basic	Intermediate	Advanced
Outcome/ Performance Indicators			
Assessment			
Instruction/ Learning Activity			
Resources			
Homework			

Pre-assessment:

Tiered Activities To Alter the Depth of a Lesson

Subject Area: Language Arts

Grade Level: 7 - 8

Topic: Persuasive Essay

	Basic	Intermediate	Advanced
Outcome/ Performance Indicators	Students will write a cohesive paragraph with a main idea and supporting details.	Students will state a point of view and cite multiple reasons to defend that viewpoint.	Students will expand the quality of their essay by adding multiple, credible sources of support.
Assessment	Students will describe their opinion about a topic by writing 5-6 detailed sentences explaining their opinion – to be assessed using the NYS independent writing rubric.	Students will use the Learning Activity as a rough draft to develop a multi-paragraph persuasive essay – to be assessed using the NYS independent writing rubric.	Students will write a persuasive essay using multiple reasons, logical explanations and credible sources to support their point of view – to be assessed using the NYS independent writing rubric.
Instruction/ Learning Activity	<p>Students will receive a rubric to help them design and evaluate the cohesiveness of a paragraph.</p> <p>Students will identify their point of view and list 5-6 reasons in support of their opinion.</p>	<p>Teacher will explain/describe the essential elements of a persuasive essay using a graphic organizer.</p> <p>Students will identify a point of view, list 4-5 reasons to support it, and explain each reason with detailed bullets.</p>	<p>Students will learn how to evaluate the credibility of a source and locate multiple sources, quotes, references, etc., to increase the quality of their arguments.</p> <p>Students will develop criteria to identify credible sources.</p>
Resources	List of issues and problems (appealing to students) that have alternate points of view.	List of issues and problems (appealing to students) that have alternate points of view.	Opposing viewpoints series, editorial pages of D&C and USA Today.
Homework	Students will collect good and bad examples of cohesive paragraphs from newspapers, magazines and younger students' work.	Students will collect good and bad examples of persuasive editorials in newspapers and periodicals.	Students will search the web for multiple, credible sources to support their argument.

Pre-assessment: Quick write (short writing sample) a current "hot topic" that is controversial

<p>#1- I am having trouble writing a thesis or coming up with reasons and evidence.</p>	<p>#2- I am having trouble forming a counterargument or call to action.</p>	<p>#3-I am confident in where I am at in my research and do not need help at this time.</p>
<ul style="list-style-type: none"> • Identify what exactly you are having difficulty with and write it down as a question. • Bring your question, your laptop, and your speech materials to the front of the room. • Wait for directions from Mrs. X • When you are finished, join a different group that matches where you are at. 	<ul style="list-style-type: none"> • Identify what exactly you are having difficulty with and write it down as a question. • Bring your question, your laptop, and your speech materials to the back of the room. • Wait for directions from Mr. Y • When you are finished, join a different group that matches where you are at. 	<ul style="list-style-type: none"> • Stay at your seat. • Research independently and <u>quietly</u>. • If you have a question or get stuck, follow the expectations for Split Screen (posted) • Anchor: Empower articles- week 5 <p><i>Co-Teacher 9TH</i> <i>English A</i></p>

Name: _____

1 of 2
Some students
got just this page.
Some this & the
next page.

Thinking Critically About Scenes 1-3 in *Streetcar Named Desire*

You are going to choose **ONE** question from each of the following two categories to explore in an analysis. Please provide a detailed, well-developed response to both questions that you choose. When you are asked to provide textual support, you must do so in order to receive credit. Post your work to the class wiki under the *Streetcar Named Desire* discussion tab.

Group One: 5 points

1. What kind of relationship do Stella and Stanley have? Use evidence from the text to support your answer.
2. How does Stanley differ from Blanche? How are these characters similar? Use evidence from the text to support your answer.
3. A **foil** is a character who purposely has traits opposite from the main character in order to highlight something about the main character. In the play, how is Mitch a foil for Stanley? Use evidence from the text to support your answer.
4. Why does Blanche repeatedly try to hide the fact that she drinks? How does this add to her characterization?

Group Two: 10 points

1. The play has many stage directions referring to music. What music and songs are present in the first three scenes? How does the music relate to the characters?
2. Why is the paper lantern important to Blanche? Go beyond the surface-level meaning to explore the deeper significance of this object.
3. Re-read the following conversation between Stella and Blanche in scene three:

Stella: Stanley's the only one of his crowd that's likely to get anywhere.

Blanche: What makes you think Stanley will?

Stella: Look at him.

Blanche: I've looked at him.

Stella: Then you should know.

What does Stella mean by her comment? How do Stella and Blanche's views of Stanley help to develop their own characters?



INSTRUCTIONS

1. Question: Record the question in column 1
2. It Says: Find quotes to help you answer the question
3. I Say: Using the quotes that you wrote in the "it says" column, answer the question. Be sure to think about what the quote is saying and also about its larger significance in the text.

QUESTION	IT SAYS (Quotes)	I SAY (Your thoughts)

LA 8

Unit: Rhetoric

Activity: "Normalcy Never Again"

Name: _____

1. Identify challenging words that may help you understand the speech better and define them.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

2. Read through the speech (or listen to it) and highlight literary devices, key phrases or ideas. Split up the pages within your group, and annotate your page so you can share out the information.

3. What is the central theme or idea of this speech?

4. Identify the types of imagery listed below.

- a. Metaphor:
- b. Simile:
- c. Allusion:
- d. Imagery:
- e. Symbol:
- f. Repetition:

5. Illustrate three of the most vivid images below:

6. This speech was originally entitled "Normalcy, Never Again." What does that mean?
How does it relate to the speech itself?

7. Identify the 6 'types' of dreams Martin Luther King Jr. references.

1. Before reading the speech, define the following vocabulary words you will encounter in the speech:

1. withering
2. captivity
3. decree
4. manacles
5. languished
6. promissory note
7. gradualism
8. interposition
9. nullification
10. prodigious

2. Read through the speech (or listen to it) and highlight literary devices, key phrases or ideas. Split up the pages within your group, and annotate your page so you can share out the information. Things to consider:
 - a. What are the key points on your page?
 - b. What historical references is Martin Luther King Jr. making based on what you know about this period of time in history?
 - c. Why did he speak with so many literary/poetic devices?
3. What is the central theme or idea of this speech?
4. Identify the types of imagery listed below.
 - a. "chains of discrimination" "lonely island of poverty" "cup of bitterness and hatred" "oasis of freedom"
 - b. "justice rolls down like waters" "righteousness like a mighty stream"

- c. "five score years ago" "we hold these truths to be self-evident...", "my country tis of thee,"
 - d. "sunlit path of racial justice" "quicksands of racial injustice"
 - e. "I have a dream"
5. Illustrate three of the images listed: "chains of discrimination," "lonely island of poverty," "bright day of justice," "cup of bitterness and hatred," "bank of justice is bankrupt," "storms of persecution," or "winds of police brutality"
6. This speech was originally entitled "Normalcy, Never Again." What does that mean? How does it relate to the speech itself?
7. Identify the 6 'types' of dreams Martin Luther King Jr. references. Think about what he is quoting and what he is specifically talking about in each dream.

Co-taught Algebra I

DI Organizer Activity (Artim and Dargan in Co-taught Algebra 1)

After 5 lessons on exponent rules, we decided to put together a review of all of the rules. We designed 3 different organizers for the class and split the class into 3 groups- advanced, proficient, needs work. Each group had 3 or 4 students. There were two proficient groups.

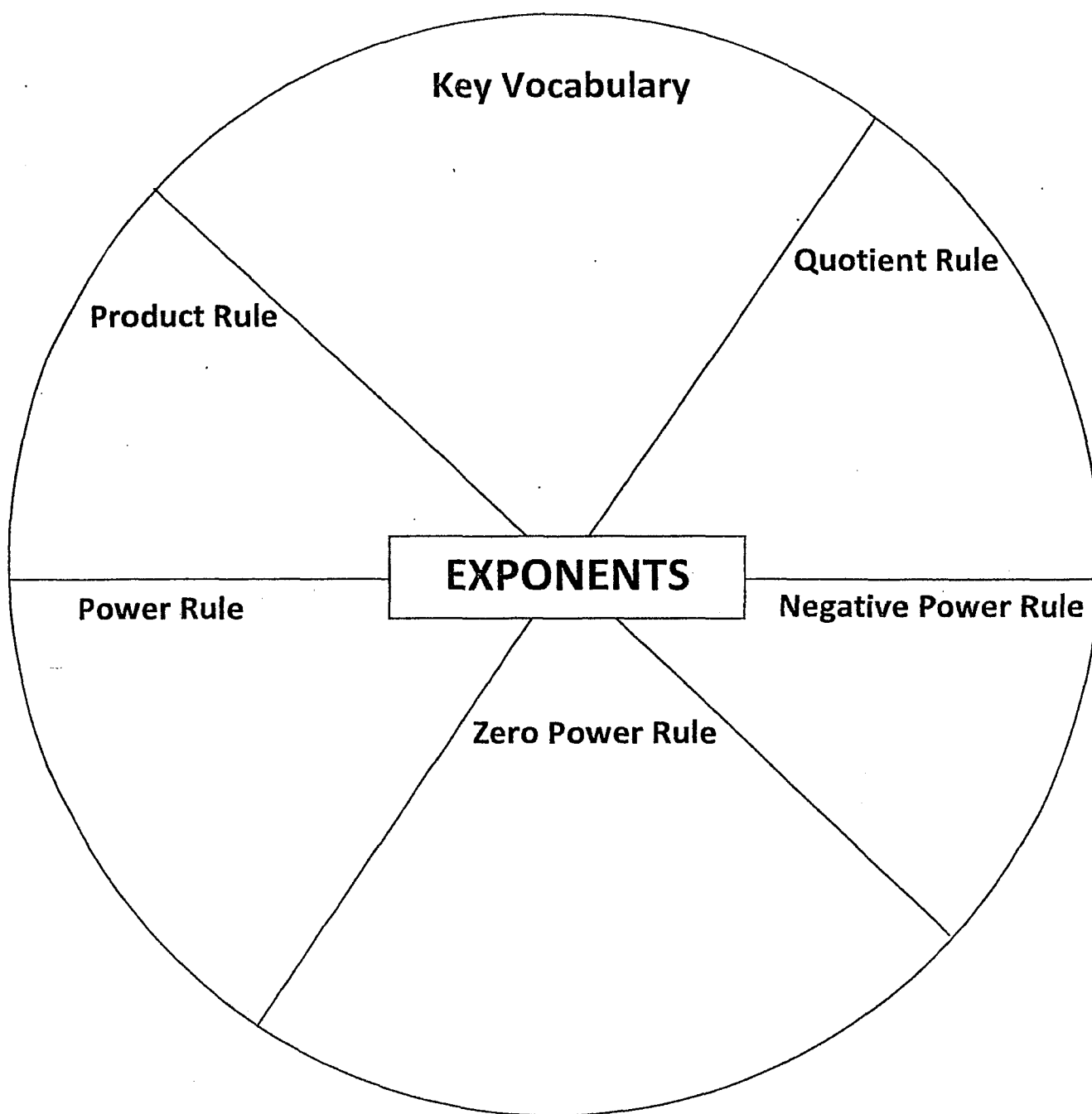
The students were asked to complete the organizer by filling in the missing information on the rules. The Proficient Organizer is attached.

Advanced Organizer - proficient organizer left blank and the students needed to produce the rules/headings and examples

Proficient Organizer - Main headings were given, but students had to fill in the rules and give examples

Needs Work Organizer- Headings and rules were given. Students had to fill in the blanks with missing info.

EXPONENT RULES



LIST THE 4 D.I. PILLARS:

1.	
2.	
3.	
4.	

① "FOUR-SQUARE" SHEET

CAN BE USED AS:

- ANCHOR ACTIVITY
- EXIT SLIP
- MINI-QUIZ
- FORMATIVE OR SUMMATIVE ASSESSMENT

②

FOUR-SQUARE

- CAN BE USED IN ANY SUBJECT AREA
- IS EASY TO PREPARE
- CAN BE SIMPLE OR COMPLEX
- VARIOUS FORMATS (CALCULATIONS, SHORT ANSWER, MULTIPLE CHOICE, ETC.)

③

"D.I. IN A FOUR-SQUARE

- CAN INCREASE DIFFICULTY AS STUDENT MOVES FROM SQUARE 1 TO SQUARE 4
- ALTERNATIVELY, CREATE MULTIPLE VERSIONS OF DIFFERENT DIFFICULTY LEVELS

AREA AND PERIMETER

NAME _____

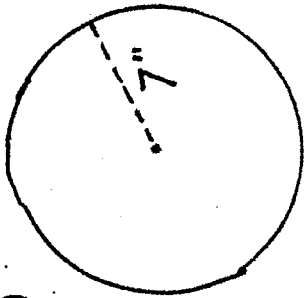
→ SHOW YOUR WORK!

SCORE _____

$$\pi = 3.14$$

$$A = \pi r^2$$

$$C = \pi d$$



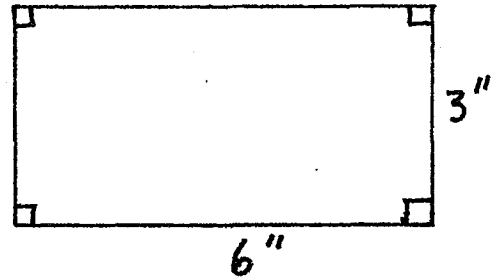
④

CIRCUMFERENCE _____

AREA _____

INCREASING
DIFFICULTY
1 → 4

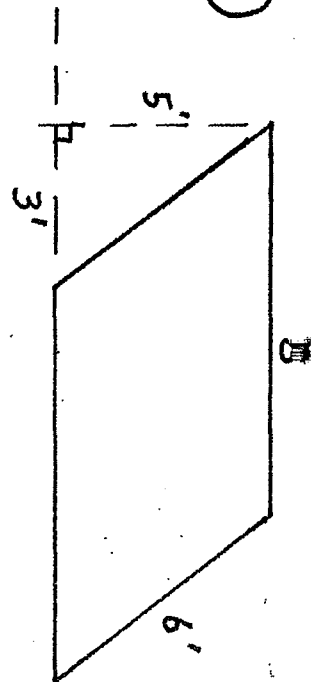
①



AREA _____

PERIMETER _____

②

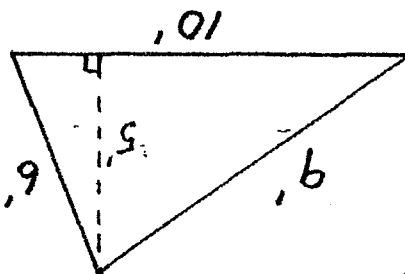


AREA _____

PERIMETER _____

PERIMETER _____

AREA _____



③

NAME _____

1. DIVIDE, PLEASE....

A $7 \overline{) 623}$

B $9 \overline{) 102}$

VARIED TOPICS
- ANCHOR ACTIVITY
OR FORMATIVE
ASSESSMENT

4. AFTER SCHOOL SNACK
FIVE FRIENDS HAVE A SNACK
TOGETHER EVERY SCHOOL DAY -
THEY EACH EAT TWO APPLES. (A) HOW
MANY APPLES DO THEY EAT (TOTAL)
IN TWENTY DAYS? (B) HOW LONG WOULD
290 APPLES LAST?

2. 5, 6, 8, 8, 14, 19

RANGE _____

MODE _____

MEDIAN _____

MEAN (AVERAGE) _____

3. WRITE A WORD PROBLEM FOR THE
FOLLOWING EQUATION: $35 - 8 = 27$

NAME

SCORE

Name _____ Date _____

Level 1

Lesson Quiz: Systems of Linear Inequalities

1. Determine which ordered pair (x, y) is a solution of $3x - 4y \leq 6$.

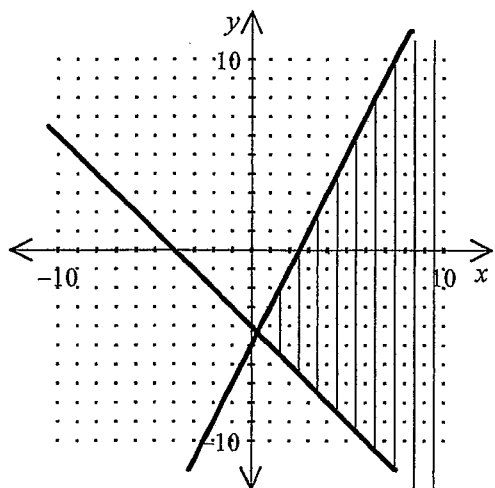
[A] $(8, -9)$

[B] $(12, -6)$

[C] $(3, 2)$

[D] $(4, 1)$

2. Write the system of inequalities whose solution is graphed as the shaded region.



[A] $\begin{cases} y \leq -5x + 2 \\ y \geq -4x - 1 \end{cases}$

[B] $\begin{cases} y \leq 2x - 5 \\ y \geq -x - 4 \end{cases}$

[C] $\begin{cases} y < -4x - 1 \\ y > -x - 5 \end{cases}$

[D] $\begin{cases} y < 2x - 1 \\ y > -x - 5 \end{cases}$

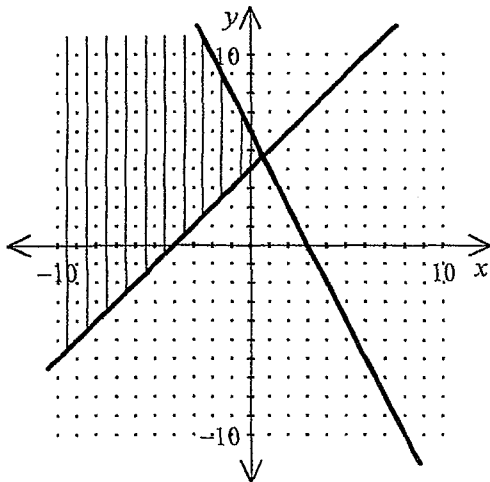
Graph the system of linear inequalities.

3. $\begin{cases} y \geq 2x + 5 \\ y \leq -x + 8 \end{cases}$

4. $\begin{cases} x \geq 0 \\ y \geq 0 \\ 6x - 7y \leq 6 \\ 8y \leq 5x + 8 \end{cases}$

Lesson Quiz: Systems of Linear Inequalities

- 1 Write the system of inequalities whose solution is graphed as the shaded region.



[A] $\begin{cases} y < -2x + 1 \\ y > x + 6 \end{cases}$

[B] $\begin{cases} y < 4x + 1 \\ y > x + 6 \end{cases}$

[C] $\begin{cases} y \leq -2x + 6 \\ y \geq x + 4 \end{cases}$

[D] $\begin{cases} y \leq 6x - 2 \\ y \geq 4x + 1 \end{cases}$

- 2 Determine whether $(-3, -4)$ is a solution of $4x - 5y \geq 5$. Explain.

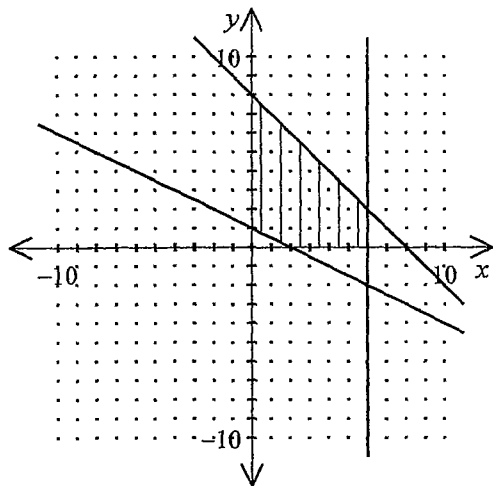
Graph the system of linear inequalities.

3. $\begin{cases} y \geq -x + 2 \\ y \leq 2x - 1 \end{cases}$

4. $\begin{cases} x \geq 0 \\ y \geq 0 \\ 5x - 5y \leq 15 \\ 8y \leq 2x + 24 \end{cases}$

Determine whether $(5, -1)$ is a solution of $5x - 3y \leq 30$. Explain.

2. Write the system of inequalities whose solution is graphed as the shaded region.



Graph the system of linear inequalities.

3.
$$\begin{cases} y \geq x + 3 \\ y \leq -2x + 4 \end{cases}$$

4.
$$\begin{cases} x \geq 0 \\ y \geq 0 \\ 7x - 7y \leq 14 \\ 9y \leq 5x + 18 \end{cases}$$

Work & Energy

Choose any one from each row, but no more than two from any one column.

<p>"Showcase" Problem – Level I</p> <p>Create an annotated solution for a level one problem from your Work & Energy Problem Set. Annotations should explain problem solving strategies, useful tips, and common pitfalls.</p> <p><i>Eligible Problems #1-5</i></p>	<p>Create a Study Guide</p> <p>Create a study guide for the Work & Energy unit. It should include:</p> <ul style="list-style-type: none"> • a checklist of unit objectives • all vocabulary with definitions in your own words • all standard equations • tips for problem solving • any other information you feel would be useful 	<p>Laboratory Activity Determining Power Output</p> <p>With a partner, determine your power output jogging up a flight of stairs. Show and explain how you arrived at your answer. Show answers in both Watts and Horsepower</p> <p><i>See Instruction Sheet</i></p>
<p>"Showcase" Problem – Level II</p> <p>Create an annotated solution of a level two problem from your Work & Energy Problem Set. Annotations should explain problem solving strategies, useful tips, and common pitfalls.</p> <p><i>Eligible Problems #6-12,27</i></p>	<p>Conceptual Questions</p> <p>Answer any <u>five</u> conceptual questions from Chapter 6: Work and Energy [Giancoli] p.160-161 #1-25</p>	<p>Laboratory Activity Video Analysis of a Pendulum</p> <p>Using the app <i>Video Physics</i> on the iPad, record and analyze video of a pendulum. Use video analysis to validate graphically that energy is conserved. (Hint: You can add calculated columns in LoggerPro.) Explain any discrepancies.</p>
<p>"Showcase" Problem – Level III Using <i>LiveScribe</i> Pen</p> <p>Create an annotated solution of a level three problem from your Work & Energy Problem Set using the LiveScribe Pen. Annotations should explain problem solving strategies, useful tips, and common pitfalls.</p> <p><i>Eligible Problems #15,17-19,26,30</i></p>	<p>Conceptual Questions</p> <p>Answer any <u>ten</u> conceptual questions from Chapter 6: Work and Energy [Giancoli] p.160-161 #1-25</p>	<p>Laboratory Activity Oscillating Springs</p> <p>Design a procedure that would allow you determine the mass of an unknown object oscillating on a spring given a spring constant.</p>

Directions for Reading and Rubric

Need one copy of the reading and writing rubric.

1. Read the information and mark up your text using the post it notes or write directly on the paper.
2. Raise your hand when you are finished reading and marking up the text.
3. After your work is checked, use the response rubric to help answer the prompt.
4. When your response is finished, use the response rubric to reread your summary and make sure all the info is included.
5. Once your work is double checked, raise your hand.

Anchor Activity

1. In your workbook, read and answer questions on Pages 0-5. All answers should be in complete sentences.
2. Raise your hand when you finish this activity.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Check if complete.

21

What Is Matter?

All the substances that make up everything in the universe are forms of matter. All matter has mass. We can find out how much matter an object contains by measuring its mass. We use a balance to find the mass of an object. Mass is measured in grams (g) and kilograms (kg). Therefore, a person with a mass of 60 kg has 30 kg more matter than a bag of cement with a mass of 30 kg. Of course, the matter consists of different substances!

As the water in the lake warms, some of it turns into water vapor. This is water in the gas phase. As the water vapor rises in the air, it cools down again and condenses back into small water droplets. These are visible to us as clouds.

Matter also takes up space. The volume of a piece of matter is measured in milliliters (mL) and liters (L). Volume may also be measured in cubic centimeters (cm³) and cubic meters (m³). Therefore, two properties of matter are that it has mass and volume.

Liquid matter, like the water in this lake, can flow from one place to another and will settle to the bottom of a container.

Every object we make is made from matter. How we select and use the matter depends on its different physical and chemical properties. A physical property is one that can be measured or observed without changing the type of matter. A chemical property is how one kind of matter behaves when it is brought into contact with another kind of matter.

All living things are made up of matter. Matter in living things has the same properties as matter in nonliving things.

Air is a mixture of different gases. Each gas that makes up air, like oxygen or water vapor, is a particular type of matter or substance. Gases have no shape of their own. If they are released into an empty container, they will spread out and fill the container. How can we tell that matter, such as the gases that make up air, exists if we can't see it? Look at this picture to give you some clues.

Matter can exist as three different phases (also called states): solids, liquids, and gases. The snow on this mountain is water in the solid state. As it absorbs heat from the sun, it will start to melt and form liquid water.

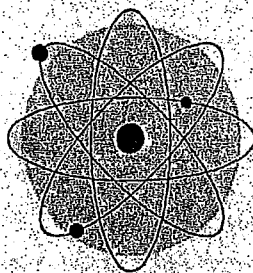
Liquids, like the water that comes from melting snow and ice on this mountain, have no fixed shape and can flow downhill, forming rivers and streams. As water flows down the mountain, it may dissolve some minerals from the rocks. Some of these dissolved substances will reach the sea and are responsible for giving ocean water its salty taste.

The rocks that make up this mountain are solids. Like most solids, they have a fixed shape. Most rocks are mixtures of substances called minerals.

Our bodies are made up of matter. For example, water is the most common substance in our bodies. It is the physical and chemical properties of this matter that enable our bodies to work. Water plays an important part in almost every body process, and we use the chemical properties of food matter to obtain the energy we need to live.

Matter Is Everywhere!

Science -
Matter



Everything around us is made of matter—your clothes, the trees, even the water you drink! We divide matter into four major categories, which are called the four states of matter: liquid, gaseous, solid, and plasma. However, we will focus on the first three. Whatever the state of matter may be, all matter is made of tiny particles called atoms. These particles are too tiny to see with the naked eye; they're even too small to see with a regular microscope. If you line up a million atoms next to each other, they will be as thick as a single piece of human hair. So, we can only look at atoms through very powerful tools, one of them being the “scanning tunneling” microscope.

How Do We Know?

We can easily see liquids and solids around us, but most gases aren't visible. We can't see the air around us, but it is still made of atoms that constantly move around freely in space. How can we tell?

Take a balloon, for example. When we pump air into a balloon, it visibly inflates. That means that gaseous matter is filling the balloon and taking up space. The more air we blow into the balloon, the bigger it gets. Therefore, we can observe the way gas moves around space. In the same way, inflatable pool toys also fill with air so that they can float on water. When we fill the plastic shells with air, the toys take shape. Since air is lighter than water, the pool toys can rest on the water without sinking. And then we can enjoy a sunny day while floating in a pool!

Moving Atoms

Atoms are constantly moving. However, atoms move at different speeds within different states of matter. We have been able to determine that atoms move slower in solids than they do in liquids. That's because atoms in solids are tightly packed, and there is less space to move around freely. The atoms in gas move the fastest. Since the atoms move more freely in liquids and gases, they can undergo a process called diffusion. (Solids can diffuse as well, although it's

a much longer process.) Diffusion is the movement of particles from a higher concentration to a lower concentration. That's why, when you spray perfume in a corner of a room, you will eventually smell it on the other side of the room. The atoms from the perfume diffuse through the air. Because of this diffusion, the perfume scent is spread.

Identification

We can identify materials according to a variety of properties. Scientists have determined several different measurements to help label materials. Some examples are temperature, hardness, color and length. Usually, these are used to measure solids, like rocks and minerals. However, temperature can be used to measure liquids as well. When geologists study rocks, they often use the Mohs scale of mineral hardness. This scale allows us to characterize the scratch resistance of various minerals. A diamond is described as hard because it is extremely difficult to scratch. Scientists can measure hardness with the Mohs scale and compare minerals to other minerals.

Scientists always use various methods to group materials together—that way, it's easier to study and compare them. That's another reason why we differentiate between liquids, gases, solids and plasmas!

Subject: Biology/Life Science Grade: Seventh, Ninth

Standard: #4 The Living Environment

Key Concept: DNA provides for both the continuity of traits from one generation to the next and the variation that in time can lead to differences within a species and to entirely new species.

Generalization: A physical or mathematical model can be used to estimate the probability of real-world events.

Background:

Students have been learning about the fundamentals of genetics, including genes and chromosomes. Based on their responses to a quiz covering test crosses, genotypes, and phenotypes, students have been placed in one of three groups by the teacher.

Tiered in process according to readiness

Mendel Group- Tier I

Students work in pairs. Each group has 50 red beans and 50 white beans in each of two coffee cans. Assume the beans represent alleles for flower color in a certain plant. Red is dominant over white. Assume one can represents the female parent; the other can represents the male parent. Without looking into the cans, remove one bean from each can. Place the pair of beans into one of three separate groups: red/red, red/white, white/white. Continue until all beans are removed. Count the number of pairs in each group and record them in a table. Record the genotypes as well. How many genotypes have resulted from this exercise? What are they? What is the genotypic ratio? How many phenotypes have resulted? Describe them. What is the phenotypic ratio?

Sutton Group (Tier II)

Using a Punnett square to predict the results of a trihybrid cross. In the fruit fly, *Drosophila*, the following genes are located on separate chromosomes:

GENE	DOMINANT ALLELE	RECESSIVE ALLELE
1	eyes (E)	eyeless (e)
2	hairy body (H)	hairless body (h)
3	large wings (L)	small wings (l)

Predict the results of a cross between two fruit flies, both heterozygous, for all the traits above. Use a Punnett square to show the results. What are the phenotypic ratios predicted by this cross?

Franklin Group (Tier III)

Using a Punnett square to diagram polygenic inheritance, a case in which a single trait is the result of the interaction of a number of genes.

In wheat, the color of the kernel is controlled by two pairs of genes. These genes are R/r and R'/r' . Complete a Punnett square showing the result of a cross between two individuals heterozygous for both genes.

Use the following key to answer the questions below.

$R R R R$ dark red kernels $r r R R$ medium red kernels

$R R R r$ medium dark red kernels $R r r r$ light red kernels

$R r R R$ medium dark red kernels $r r R r$ light red kernels

$R r R r$ medium red kernels $r r r r$ white kernels

$R R r r$ medium red kernels

What is the phenotypic ratio of red to white kernels

What is the phenotypic ratio of dark red to medium dark red kernels?

What is the phenotypic ratio of medium dark red to medium red kernels?

What is the phenotypic ratio of medium red to light red kernels?

What is the phenotypic ratio of dark red to white kernels?

TIERED WORKSHEETS GIVEN OUT
BASED ON RESULTS OF "TICKET IN" BELOW.

"TICKET IN"

Solution Stoichiometry Examples

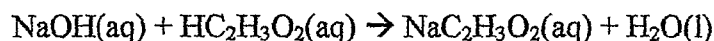
<p>1. What mass of copper is produced from the reaction of aluminum with 25 mL of 0.1 M CuSO_4?</p> $2 \text{ Al} + 3 \text{ CuSO}_4 \rightarrow 3 \text{ Cu} + \text{Al}_2(\text{SO}_4)_3$	<p>How did you do? (circle one)</p> <p>0 No work correct</p> <p>1 Some work correct</p> <p>2 All work and answer correct</p>
<p>2. Calculate the mass of BaCl_2 formed from the reaction of 10 mL of 0.5 M $\text{Ba}(\text{NO}_3)_2$ with 15 mL of 0.2 M NaCl.</p> $\text{Ba}(\text{NO}_3)_2(\text{aq}) + 2 \text{ NaCl}(\text{aq}) \rightarrow \text{BaCl}_2(\text{s}) + 2 \text{ NaNO}_3(\text{aq})$	<p>How did you do? (circle one)</p> <p>0 No work correct</p> <p>1 A little bit correct</p> <p>2 Mostly correct</p> <p>3 All work and answer correct</p>

Name _____

Date _____

Solutions Worksheet: Stoichiometry in Aqueous Solutions

1. Calculate the mass of water produced when 0.333 L of 0.500 M NaOH is added to excess acetic acid. The equation is:



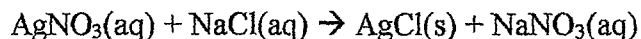
2. How many liters of NO(g) are produced when 0.85L of 2.00 M HNO₃ solution is added to excess Ag according to the equation.



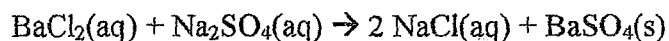
3. Calculate the number of grams of AgCl formed when 0.200 L of 0.200 M AgNO₃ is added to CaCl₂. The equation is:



4. Calculate the mass of AgCl formed when 0.100 L of 0.200 M AgNO₃ is added to excess NaCl solution.



5. Calculate the mass of BaSO₄ formed when 0.875 L of 0.200 M Na₂SO₄ solution is added to 0.500 L of 0.500 M BaCl₂ solution. Which is the limiting reactant?

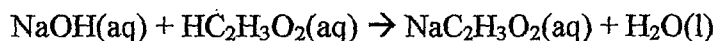


Name _____

Date _____

Solutions Worksheet: Stoichiometry in Aqueous Solutions

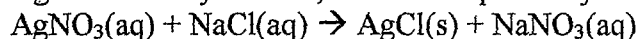
1. Calculate the mass of water produced when 0.333 L of 0.500 M NaOH is added to excess acetic acid. The equation is:



2. Silver reacts with nitric acid to produce aqueous silver nitrate, gaseous nitrogen monoxide, and water. How many liters of NO (g) are produced when 0.85L of 2.00 M HNO₃ solution is added to excess Ag?

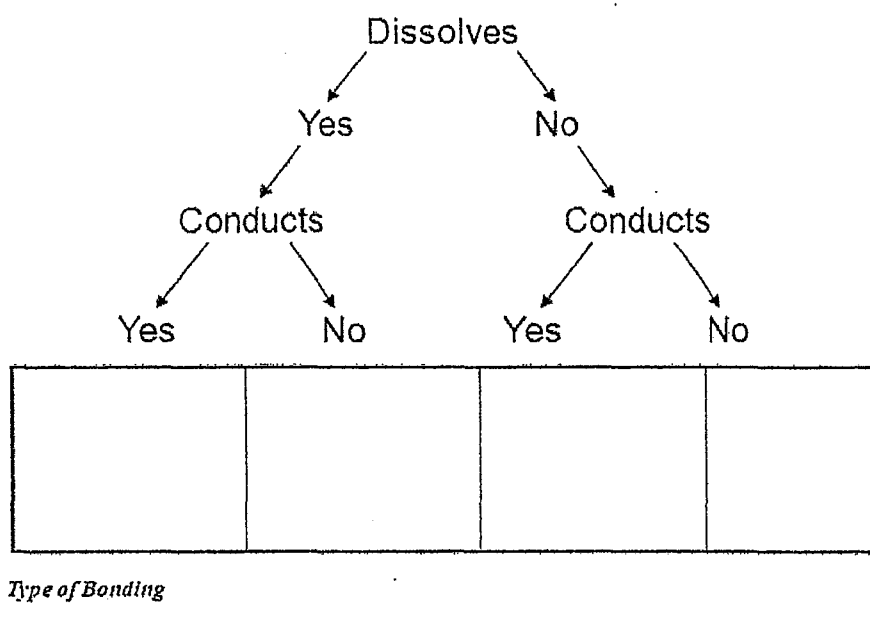
3. Calculate the number of grams of AgCl formed when 0.200 L of 0.200 M AgNO₃ is added to excess CaCl₂ solution.

4. Calculate the mass of AgCl formed when 0.250 L of 0.100 M solution of NaCl is added to 0.100 L of 0.200 M AgNO₃. If 2.25 g of AgCl is actually formed, what is the percent yield?



Calculate the mass of BaSO₄ formed when 0.875 L of 0.200 M Na₂SO₄ solution is added to 0.500 L of 0.500 M BaCl₂ solution. If 38.2 g of BaSO₄ is actually formed, what is the percent yield?

- Tiered Activity Based on Ticket-In
 - The following ticket in will be given to students. On it, they will complete the flowchart with the four types of bonding. Then, they will draw the electron arrangement for each type.



After I reveal the responses, students will rate themselves on a scale of 1-3 for their level of comfort with the question and answer. Based upon their personal rating that they write down on their ticket, they perform the following activities for the class period:

- Tier 1: With another Tier one partner, do a Jigsaw of the characteristics of the four types of bonding. Be sure to include the common states of matter, the position of electrons, whether it dissolves in water, whether it conducts

electricity, and whether it is made of metals or nonmetals or both. Also include a common example of a substance with each type of bonding. After each partner finds the information in their book, notes, and resources, share the information with the other partner. Be sure to read your information aloud rather than just copying the information. Then quiz each other on the properties of the four types of bonding. If time allows, make flashcards for each bond type.

- Tier 2: Complete the Tier 2 Worksheet on which you must classify a list of common substances. (The worksheet has different sections. For example, one section will list 5 chemical formulas and the students will write whether they will dissolve or not. Another section will list 5 chemical names and the students will write whether they are brittle or malleable.)
- Tier 3: Complete the Tier 3 worksheet on which there are a list of common household substances such as copper wire, petroleum jelly, sand, and table salt. For each substance, describe its properties and explain each one based on the electron distribution in the bonding model.

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Group 1

Soc. Stud.

Task 1: As a group, develop a topic sentence for the subject: Specialization of Labor is Prevalent in America

Task 2: After you agree on a Topic Sentence, Each group member must come up with 2 supporting details for the agreed topic sentence.

Task 3: As a Group agree on 3 supporting details for the 1 Topic Sentence.

TOPIC SENTENCE:

Supporting Detail #1

Supporting Detail #2

Supporting Detail #3

Group 2

Soc. Stud.

Write the topic sentence for the subject: Specialization of Labor is Prevalent in

After reading the Topic Sentence, Each group member must come up with 2 supporting details for the topic sentence.

Then, a Group agree on 3 supporting details for the 1 Topic Sentence.

SENTENCE: *In America today we have many different products that do not need to be made by individuals.*

Supporting Detail #1

Supporting Detail #2

Supporting Detail #3

Group 2

Soc. Stud.

Task 1: As a group, Read the topic sentence for the subject: Specialization of Labor is Prevalent in America

Task 2: After you read the Topic Sentence, Each group member must come up with 2 supporting details for the topic sentence.

Task 3: As a Group agree on 3 supporting details for the 1 Topic Sentence.

TOPIC SENTENCE: *In America today we have many different products that do not need to be made by individuals.*

Supporting Detail #1

Supporting Detail #2

Supporting Detail #3

Group 3

Soc. Stud.

Task 1: As a group, Read the topic sentence for the subject: Specialization of Labor is Prevalent in America

Task 2: After you read the Topic Sentence, Each group member must pick 2 supporting details for the topic sentence.

Task 3: As a Group agree on 3 supporting details for the 1 Topic Sentence.

TOPIC SENTENCE: *People in America hold various types of jobs.*

Supporting Detail #1

Supporting Detail #2

Supporting Detail #3

I am interested in cars so when I grow up, I want to be a mechanic when I grow up

My mother is a nurse and my father is an accountant.

There are many college majors to choose from.

There are many countries in the world.

Someday we will have robots to in the work place.

The field of technology is growing, that should cause more people to choose that major related to technology in college.

Unemployment is high in America.

Americans are now competing in a global job market.

People have a great choice in what type of work they will do when they leave high school.

Tiered Assignments

Subject: Honors History Grade: High School

Essential Question/Standard(s): What political and national events cause national revolutions?

Tiered in Content ☒ Process Product

According to ☒ Readiness Interest Learning style

<input checked="" type="checkbox"/> <u>Higher</u> level skills <u>Student</u> interest <u>Learning</u> style- 	Analyze the cause of the French Revolution. Were they more economic or political in nature?
<input checked="" type="checkbox"/> <u>Mid</u> level skills <u>Student</u> interest <u>Learning</u> style- 	List the causes of the French Revolution. Justify your answers.
<input checked="" type="checkbox"/> <u>Basic</u> level skills <u>Student</u> interest <u>Learning</u> style- 	Complete the graphic organizer showing the causes of the French Revolution.

Assessment: Follow-up class discussion on the causes of the Revolution.

Tiered Assignments

Subject: Social Studies Grade: 5

Essential Question/Standard(s): How do maps help find patterns of culture, population, economics, government, etc.?

Tiered in Content Process x Product
According to x Readiness Interest Learning style

Note: Students will work in small, flexible groups of 4 assigned by the teacher to complete one of the following:

Higher skills	Draw or sketch large population areas in Pennsylvania. Create a legend with symbols for different sized populations, recreation sites, historic sites, and any other place of interest you feel are important to the state. Put the symbols on the map that show where these areas are located. Be sure that each symbol is also shown in the legend with a description of what it means.
Mid level skills	Locate Pennsylvania precisely on the map and globe by using reference systems such as numbered grids, latitude, longitude, parallels and meridians. Develop instructions locating Pennsylvania so that someone who knows nothing about using maps and globes could easily find it.
Basic level skills	In as many ways as possible list how you can locate Pennsylvania (where it is in the United States, what other states does it touch, what bodies of water is it near, etc.). Come up with an interesting way to show the rest of the class what you have discovered about Pennsylvania's location.

Assessment: Student groups will present their project to the whole class in a 5 minute presentation

1 of 12

Desired Skill: Comprehension of Complex Text

Directions: Fill out the graphic organizer below using your assigned reading. Work individually and alone to attain comprehension. Your goal is to **paraphrase** the text (put it into your own words). We will form group consensus later in class.

(I)=individual (P)=partner (G)=group

Sample:

Section Heading	Key Words(I)	Difficult Words(I)	Clarification(I)
Patricians	Place any words here you consider to be important. Pretend you are the publisher and these are the words that should be bold/highlighted	List any words you do not understand or cannot place in context. You will use your phone/discuss with your partner later	List anything here you are still unclear about or may have a question about from the reading.
First Look(summary) (I)		Partner Consensus(summary) (P)	
After reading your excerpt individually, how would you summarize what you read?		Leave this blank until you sit with your partner. You should each share your first look and work together to develop a summary that combines each of your responses.	
Guiding Question (P)		Guiding Question Answer (P)	
Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.			

(I)=individual

(P)=partner

(G)=group

Section Heading(I)	Key Words(I)	Difficult Words(I/P)	Clarification(I)
Social Order in Ancient Rome			
First Look(summary)(I)		Partner Consensus(summary)(P)	
Guiding Question (P)		Guiding Question Answer (P)	
Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.			

Patricians:

Referred to by a name **deriving**¹ from pater, the Latin word for father, patricians were members of the wealthy or privileged class of citizens in ancient Rome. As **distinguished**² from the plebeians, or common people, the patricians were descendants of the oldest and most important and powerful families or clans of Rome. Patrician status was granted only by birth into a patrician family. From the foundation of the Roman Republic, the patricians controlled the powerful Roman Senate and the **consulship**³ as well as all of the republic's religious offices.

Making up only about 10% of the population, the patricians were the landowning class of Roman society. Other than buying and selling land to other patricians, however, they did not typically conduct business, which was thought to be beneath their status. Patricians also enjoyed many other civic rights that were denied their plebeian counterparts: they held a **monopoly**⁴ over public offices and other civic or religious positions, and patricians married only other patricians.

Eventually, however, the patricians came under pressure from the more **populous**⁵ plebeians. The struggle over political and economic power between the patricians and the plebeians lasted for two centuries and became known as the Conflict of the Orders. The struggle culminated in 287 BCE when the two groups were declared legally equal. The number of patrician families and their influence over Roman society diminished significantly in the late Roman Republic and the Roman Empire, as changes in government and society made patrician status increasingly less relevant. During the Roman Empire, patrician status became an honorary title awarded by emperors.

Haber, Katharine. "patricians." World History: Ancient and Medieval Eras. ABC-CLIO, 2016. Web. 4 Feb. 2016.

Key Terms:

¹ to trace from a source or origin

² to recognize as distinct or different

³ either of the two chief magistrates of the ancient Roman republic

⁴ exclusive control of a commodity or service

⁵ forming or comprising a large number or quantity

Final Group Worksheet (G)

Question:

Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.

Topic	Responses
Group A Guided Question Response	
Group B Guided Question Response	
Group C Guided Question Response	
Final Group Consensus: Construct a group response to the question. Be sure to incorporate information from each group.	

Desired Skill: Comprehension of Complex Text

Directions: Fill out the graphic organizer below using your assigned reading. Work individually and alone to attain comprehension. Your goal is to **paraphrase** the text (put it into your own words). We will form group consensus later in class.

(I)=individual (P)=partner (G)=group

Sample:

Section Heading	Key Words(I)	Difficult Words(I)	Clarification(I)
Patricians	Place any words here you consider to be important. Pretend you are the publisher and these are the words that should be bold/highlighted	List any words you do not understand or cannot place in context. You will use your phone/discuss with your partner later	List anything here you are still unclear about or may have a question about from the reading.
First Look(summary) (I)		Partner Consensus(summary) (P)	
After reading your excerpt individually, how would you summarize what you read?		Leave this blank until you sit with your partner. You should each share your first look and work together to develop a summary that combines each of your responses.	
Guiding Question (P)		Guiding Question Answer (P)	
Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.			

Plebeians

Plebeians, also known as plebs, were the general populace of the early and middle Roman Republic. Their struggle for political and legal equality with the patrician aristocracy was known as the Conflict of the Orders.

The Roman Republic was divided along class lines between the plebeians and the patricians, the privileged class of citizens who controlled the Roman government from the outset. Although they constituted the majority of the city's free population, the plebeians had fewer civic rights than patricians. They were permitted to serve in the military or become military officers, but they were forbidden by law to enroll in religious schools or serve as members of magistracies. The ancient Roman legal framework proscribed trade and even intermarriage between plebeians and patricians.

Gradually, however, the plebeians began to improve their situation. Using the threat of secession, in which the plebeians would desert Rome for a time, resulting in disastrous consequences for the city, the plebeians won some important concessions from the patricians. With legal permission from the patricians in 494 BCE, the plebeians created the office of tribune, to which they elected representatives to protect their interests.

Under increasing pressure from the plebeians, around 450 BCE, the patricians published the society's previously unwritten laws, known as the Law of the Twelve Tables, and posted them in the Roman Forum for all the citizens to see. That development served to help the plebeians defend themselves against arbitrary discrimination at the hands of biased patrician magistrates.

By the early fourth century BCE, the plebeians had gained the right to hold important government offices. Intermarriage between plebeians and patricians was eventually legalized, and in 300 BCE, plebeians were permitted to serve as priests and augurs.

By that time, the distinction between patricians and plebeians had largely lost its significance, and in 287 BCE, Roman magistrates declared legal equality between the two classes. In the later Roman Republic and the Roman Empire, the term "plebeians" continued to be used to indicate those members of society who were not in the senatorial or equestrian orders.

Haber, Katharine. "plebeians." World History: Ancient and Medieval Eras. ABC-CLIO, 2016. Web. 4 Feb. 2016.

(I)=individual (P)=partner (G)=group

Section Heading(I)	Key Words(I)	Difficult Words(I/P)	Clarification(I)
Social Order in Ancient Rome			
First Look(summary)(I)		Partner Consensus(summary)(P)	
Guiding Question (P)		Guiding Question Answer (P)	
Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.			

Final Group Worksheet (G)

Question:

Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.

Topic	Responses
Group A Guided Question Response	
Group B Guided Question Response	
Group C Guided Question Response	
Final Group Consensus: Construct a group response to the question. Be sure to incorporate information from each group.	

Desired Skill: Comprehension of Complex Text

Directions: Fill out the graphic organizer below using your assigned reading. Work individually and alone to attain comprehension. Your goal is to **paraphrase** the text (put it into your own words). We will form group consensus later in class.

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Guiding Question (P)		Guiding Question Answer (P)	
Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.			

Social Order in Ancient Rome

Traditionally, Roman society was extremely rigid. By the first century, however, the need for capable men to run Rome's vast empire was slowly eroding the old social barriers.

The social structure of ancient Rome was based on heredity, property, wealth, citizenship and freedom. It was also based around men: women were defined by the social status of their fathers or husbands. Women were expected to look after the houses and very few had any real independence.

The boundaries between the different classes were strict and legally enforced: members of different classes even dressed differently. Only the emperor was allowed to wear a purple toga, while senators could wear a white toga with the *latus clavus*, a broad purple stripe along the edge.

Although the classes were strictly defined, there was a lot of interaction. Slaves and some freemen worked in the homes of the upper classes, like the senators and patricians. Soldiers also mixed with their officers.

Roman society also involved a system of patronage. Members of the upper classes – the *patroni* – offered protection to freedmen or plebeians, who became their "*cliens*." Patronage might consist of money, food, or legal help. Traditionally, any freed slaves became the *cliens* of their former owner.

In return, *patroni* received respect and political favors. During the empire, *cliens* were required to offer daily greetings to their *patroni*, and the number of these greeters helped determine social status. On the frontiers of the empire, Roman generals served as *patroni* for the people they conquered, while Roman provinces or cities often sought out an influential senator to act as *patroni* and oversee their interests in Rome.

Despite the inflexibility of Roman society, advancement was always possible for the select few. Wealth and property were well-known routes to social advancement, as was patronage by the emperor – at one point, Caligula even made a horse a senator.

Over time, society did become more fluid. Augustus expanded the equestrian order and hired them into senior administrative positions. By the end of the first century, equestrians were recruited into the Senate.

Membership of the equestrian class was not restricted to Italian-born citizens, so letting equestrians into the Senate was a big step. Over time, the Senate would be open to Roman citizens from outside Italy. By the end of the first century, even the emperor himself would be born abroad.

- www.pbs.org/empires/romans

(I)=individual

(P)=partner

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Section Heading(I)	Key Words(I)	Difficult Words(I/P)	Clarification(I)
Social Order in Ancient Rome			
First Look(summary)(I)		Partner Consensus(summary)(P)	
Guiding Question (P)		Guiding Question Answer (P)	
Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.			

Final Group Worksheet (G)

Question:

Based on your reading and our opening class discussion, how did the social classes found in Ancient Rome impact society? Use specific examples from your reading and our discussion.

Topic	Responses
Group A Guided Question Response	
Group B Guided Question Response	
Group C Guided Question Response	
Final Group Consensus: Construct a group response to the question. Be sure to incorporate information from each group.	

Tiered Assignments

Subject: German Grade: 1st year

Essential Question/Standard(s): Past-tense verbs

Tiered in x Content Process Product

According to x Readiness Interest Learning style

<u>X</u> Higher level skills <u> </u> Student interest <u> </u> Learning style- <u> </u>	<p>Students translate 10 sentences that require irregular verbs from English to German.</p> <p style="text-align: center;">OR</p> <p>Students write a 2 paragraph summary of what they did over the weekend using at least 4 irregular verbs</p>
<u>X</u> Mid level skills <u> </u> Student interest <u> </u> Learning style- <u> </u>	<p>Students are given 10 sentences in which <u>some</u> of the German is given. In each sentence, the verbs (<u>some regular and some irregular</u>) are in English and students must supply the correct form of the past tense German verb. Students must translate any word in English into German.</p>
<u>X</u> Basic level skills <u> </u> Student interest <u> </u> Learning style- <u> </u>	<p>Students are given 10 sentences in which <u>much</u> of the German is given. In each sentence, the verb (<u>regular</u>) is in English and students must supply the correct form of the past tense German verb. In addition, several nouns and/or pronouns are in English and the students must supply the appropriate word in German.</p>

Assessment: Teacher observation and discussion with students in each group.

<p>Topic: Clothing</p> <p>Language and Level: French III</p> <p>Key concept(s): Students use clothing vocabulary in real world contexts. They are able to describe in detail, suggest clothing items to friends and customers, persuade others, compare and contrast, and encourage. Students apply different social registers for friends and work situations. Students know about the impact of the French fashion industry and are aware of the styles of clothing in other Francophone countries. Students know how to use currency. Students are able to research information about the clothing industry using the Internet.</p> <p>Key Understanding: Clothing is a form of expression in many cultures.</p>	<p>Targeted Standards:</p> <p>COMMUNICATION: Presentational Mode</p> <p>CULTURES: Products and Perspectives</p> <p>CONNECTIONS: Access to information, Other subject areas</p> <p>COMPARISONS: Concept of culture</p> <p>COMMUNITIES: Within and beyond the school</p> <p>Background: Students have studied clothing vocabulary and descriptive adjectives. They can use direct and indirect object pronouns when identifying clothing. They can persuade, encourage and suggest using commands, conditional, and subjunctive. Students are aware of the Francophone countries and are aware of the different styles of clothing and the roles of clothing in the culture and can relate this information to a diversity perspective. They have done a variety of activities and assessments. They have also done Webquest research activities on the Internet. Therefore, these activities are designed for the readiness level of the students.</p>
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Tier 1 Assignment (Complex and Abstract)	Tier 2 Assignment (Somewhat Complex & Concrete)	Tier 3 Assignment (Very Concrete)
<p>Your group works for a business training institute. Your task is to write two role-play scenarios for students to use as a practice when dealing with a variety of customers in a clothing store. You are to set up each scenario and for each one, write a practice conversation between a "challenging" client and a vendor. These conversations would be used by business school students to practice appropriate interactions between a challenging client and a vendor. The conversations should encourage and persuade. Submit a written copy and be ready to present one conversation, without notes, as a model for the class.</p>	<p>Your group comprises the "Rules Committee" for a high school in Montreal, Canada. You have been assigned to write a small section of the school handbook that explains the school's dress code. For this handout, write a brief general statement about dress policy. Then write 12 school rules discussing the do's and don'ts of school dress. Describe the clothes that are acceptable or those that are not. Turn in a typed copy of the descriptions and the dress code for publication in the school handbook. Also create a poster with the 12 guidelines, and be ready to present it to the class.</p>	<p>You work for an ad agency whose job it is to create a mini-catalog and a sales ad for one of the big department stores in Paris. Using magazine pictures, drawings, and/or pictures from the Internet, create a mini-catalog with 12 clothing items. You decide on theme, age, or gender group. Describe each item using models from previous readings. Price the items in Euros. Type the descriptions and neatly arrange the catalog to make it appealing to customers. Also create an ad promoting at least two of these items which are on sale. Be creative in your design, and be ready to present both the catalog and the ad to the class.</p>

Figure 4. Tiered Lesson Plan

Question Starters and Classroom Activities

Differentiated According to Bloom's Taxonomy

Question Starters	Potential Activities
Level 1: Knowledge (Recall)	
9. What is the definition for ...? 10. What happened after ...? 11. Recall the facts. 12. What were the characteristics of ...? 13. Which is true or false? 14. How many ...? 15. Who was the ...? 16. Tell in your own words.	8. Describe the ... 9. Make a time line of events 10. Make a facts chart 11. Write a list of ...steps in...facts about 12. List all the people in the story 13. Make a chart showing 14. Recite a poem
Level 2: Comprehension	
9. Why are these ideas similar? 10. In your own words retell the story of... 11. What do you think could happen? 12. How are these ideas different? 13. Explain what happened after? 14. What are some examples? 15. Can you provide a definition of ...? 16. Who was the key character?	9. Cut out/draw pictures to show event. 10. Illustrate the main idea. 11. Make a cartoon strip showing a sequence of events. 12. Write and perform a play based on... 13. Compare this ___ with ___ 14. Construct a model of ... 15. Write a news report. 16. Prepare a flow chart to show...
Level 3: Application (applying without understanding is NOT effective)	
8. What is another instance of ...? 9. Demonstrate the way to ... 10. Which one is most like ...? 11. What questions would you ask? 12. Which factors would you change? 13. Could this have happened in ...? 14. How would you organize these ideas?	7. Construct a model to demonstrate using it. 8. Make a display to illustrate one event. 9. Make a collection about ... 10. Design a relief map to include relevant information about an event. 11. Scan a collection of photographs to illustrate ... 12. Create a mural to depict ...

Differentiated According to Bloom's Taxonomy

Question Starters	Potential Activities
Level 4: Analysis	
<ul style="list-style-type: none"> 8. What are the component parts of ...? 9. What steps are important in the process of ...? 10. If ... then ... 11. What other conclusions can you reach about ... that have been mentioned? 12. The difference between the fact and the hypothesis is... 13. The solution would be to ... 14. What is the relationship between ... and ...? 	<ul style="list-style-type: none"> 8. Design a questionnaire about ... 9. Conduct an investigation to produce ... 10. Make a flow chart to show ... 11. Construct a graph to show ... 12. Put on a play about ... 13. Review ... in terms of identified criteria. 14. Prepare a report about the area of study.
Level 5: Synthesis	
<ul style="list-style-type: none"> 8. Can you design a ...? 9. Why not compose a song about ...? 10. Why don't you devise your own way to ...? 11. Can you create new and unusual uses for ...? 12. Can you develop a proposal for ...? 13. How would you deal with ...? 14. Invent a scheme that would... 	<ul style="list-style-type: none"> 9. Create a model that shows your new ideas. 10. Devise an original plan to experiment for ... 11. Finish the incomplete ... 12. Make a hypothesis about ... 13. Change ... so that it will ... 14. Propose a method to ... 15. Prescribe a way to ... 16. Give the book a new title.
Level 6: Evaluation	
<ul style="list-style-type: none"> 9. In your opinion ... 10. Appraise the chances of ... 11. Grade or rank the ... 12. What do you think should be the outcome? 13. What solution do you favor and why? 14. Which systems are best? Worst? 15. Rate the relative value of these ideas to ... 16. Which is the better bargain? 	<ul style="list-style-type: none"> 7. Prepare a list of criteria you would use to judge a ... Indicate priority ratings you would give. 8. Conduct a debate about an issue. 9. Prepare an annotated bibliography ... 10. Form a discussion panel on ... 11. Prepare a case to present your opinions about ... 12. List some common assumptions about ...Rationalize your reactions.