

# AGENDA


- Why write?
- Writing Standards and Expectations
- Strategies for Incorporating Writing into Daily Practice
- Putting It All Together



# WRITING TO LEARN

- To clarify their thinking about what they've learned.
- To think deeply and clearly about the subject.
- To communicate what they have learned.
- To explore, extend, and cement ideas.
- To evaluate the learning process.
- To explain ideas.
- To apply learning to new situations and problems.
- To organize new information
- To make connections between what they know and what they are learning.





How might  
you apply what  
you just  
learned?

## STOP & JOT

At set points in a lesson, as material is presented, students Stop & Jot important connections, questions, or answers to questions posed by the teacher.

# TEACHING TIER 3 VOCABULARY

**Factoring**

**WHAT'S IN COMMON?**  
 $3x^2 - 12x$   
 $3x(x-4)$

**Example C IS**  
 $x^2 + 7x + 10$   
 $(x+2)(x+5)$   
 ← FACTORED FORM

**Example C IS**  
 $x^2 - 7x + 12$   
 $(x-3)(x-4)$

**Example C IS**  
 $x^2 - 4x - 12$   
 $(x-6)(x+2)$

**WHEN C IS**  
 $x^2 + Bx + C \Rightarrow (x + \dots)(x + \dots)$

**WHEN C IS**  
 $x^2 - Bx - C \Rightarrow (x - \dots)(x + \dots)$

**range**  $[2, \infty)$

**domain**  $(-\infty, \infty)$

**vertex**  $(3, 2)$

**vertex**  $X$

**vertex**  $Y$

**vertex**  $(x, y)$

**axis of symmetry**

**zeros**

**maximum**

**minimum**

**DECREASING**  
 Fast to Slow / Slow to Fast  
 (as we read left to right)

**going down**

**negative**

**Vertical angles**

**Vertical = angles**

**Scalene**

**isosceles**

**equilateral**

**horizontal**

**vertical**

**right**

**complement**

**supplement**

**exterior angles**

**vertex**

**midpoint**

**altitude**

**median**

**bisect**

**colinear**

**interior angles**

**angle bisector**

**vertices**

**acute**

**parallel lines same slope**

**parallel**

**Parallelogram**

**Thomb**

**Sphere**

**con**

**Pyramid**

**GRAPHING CALCULATOR PROJECTILE MOTION**

**GENERATE 4: MAXIMUM**

**GENERATE 2: ZERO**

**Quadratic Formula**  
 $y = ax^2 + bx + c$   
 $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$\triangle A + \angle B + \angle C = 180^\circ$

$y = -|x|$

$y = \sqrt{x}$

$y = x^3$

**Animal**

**Nuclear envelope**  
 layer of two membranes that surround the nucleus of a cell

**NUCLEOLUS**  
 where the ribosome assembly begins

**Smoothly endoplasmic reticulum**  
 contains proteins that will leave the cell

**Centrioles**  
 One of two tiny structures located in the cytoplasm of animal cells near the nuclear envelope

**NUCLEUS**  
 Controls cell's activities, stores DNA, holds the proteins and nucleolus

**Cell membrane**  
 thin flexible barrier around a cell regulates what enters and leaves the cell

**Mitochondrion**  
 converts energy stored in food into compounds that are more than convenient for cells to use

**Rough endoplasmic reticulum**  
 chemically modified protein and synthesizes proteins. Rough because there are ribosomes located on the surface.

**Lysosomes**  
 organelles filled with enzymes that digest or break down waste, carbs, and proteins that are no longer for the cell

**Ribosomes**  
 Small particle in the cell where proteins are assembled, made of RNA and protein attached ribosomes are on the

**Golgi Apparatus**  
 stack of membranes in the cell that modifies, sorts & packages proteins from the endoplasmic reticulum

**CYTOPLASM**  
 one of the major parts, part of the cell outside of the nucleus works with nucleus to keep the cell alive

# Science Sample

# Math Sample

<p>Question: What's the scientific question under investigation?</p> <p><i>How does acid rain negatively impact humans?</i></p>
<p>Claim: What conclusion can you make that could answer the question?</p> <p><i>Acid rain harms people, through the destruction of the environment and direct impacts on the economy.</i></p>
<p>Evidence: What evidence (observations/data) have you collected?</p> <p><i>Forest damage due to acid rain is well-documented in Germany, Canada, and even Korea, India and China. Agriculture is also impacted as acid rain has caused decrease crop yields.</i></p>
<p>Concepts: What science concepts are connected to the evidence that can help you answer the question?</p> <p><i>Acid rain is a side affect of air pollution which also has negative impacts on people and the environment. The ground water is infiltrated by acid rain, which taints people's drinking water. Also, the air pollution related to acid rain has health impacts such as increased rates of cancer.</i></p>
<p>Reasoning: How do the science concepts connect to the evidence to help you answer the question</p> <p><i>There is a relationship between air pollution and acid rain, especially in industrialized areas of highly populated nations. The loss of forests further impacts people as they help decrease carbon in the air. Therefore, it becomes of cycle of negative impacts. Also the food and water supply is directly impacted as crops are less productive and the ground water is tainted. This directly affects the health of humans, on top of the health risks from breathing air pollution. Last, the loss of crops and need to mediate tainted water has major impacts on the economy, as does the healthcare costs related to air pollution.</i></p>

<p>1) Identify what is being asked.</p> <p><i>I'm being asked to find the length and perimeter of a kite PQRS.</i></p>	<p>2) Show or explain your work.</p> <p><i>The length in centimeters of RS is 20cm. RS is the same as PS so that is also 20cm. I got my answer because I knew that the triangle is an equilateral which means all three sides have <u>60 degree</u> angles and therefore have the same length.</i></p>
<p>3) Justify your answer (explain your steps, strategies and why you think it's correct, using math terminology).</p> <p><i>Because I knew it was an equilateral that means all sides were the same length, this helped me figure out that each of those sides was 20cm. To find the perimeter, I needed to find QR and PQ which would be <u>equal to each other</u>. Once I found <u>those</u> I added up all the sides.</i></p>	<p>4) Record your answer (label and/or use a complete sentence, restating the question).</p> <p><i>The perimeter of the kite PQRS is 62.3 cm.</i></p>



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**Inspired Instruction, LLC.**  
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[www.inspiredinstruction.com](http://www.inspiredinstruction.com)

196 Belvidere Avenue

Washington, NJ 08722

Phone: 908-223-7570

Fax: 908-223-7570

[Michele.Regan@inspiredinstruction.com](mailto:Michele.Regan@inspiredinstruction.com)

[Jaclyn.Siano@inspiredinstruction.com](mailto:Jaclyn.Siano@inspiredinstruction.com)