

Best Practices of Technology Integration

Title: “The Emperor’s New Clothes and Mahler’s Ninth Symphony”
Writing to Explain, Confidently and Efficiently, Even Physics!

Submitted by:

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Subject Areas: Language Arts, Science, Technology
Integration Template—TRY IT!

Intended Grade Levels: 11th, 12th

Description:

This unit integrates learning in physics, English language arts, and technology. The purpose of this submission is two fold. First, to share an integration of language arts lessons about the craft and experience of explaining concepts, with the conceptual content of a physics unit on universal gravitation, and with the technology experiences of publishing and advanced research guided by telementors. The telementors are practicing professionals who communicate with participating students 2-3 times each week, by email, through the project unit. Project mentors are matched with students based on the concept chosen by the student or based on a specialized interest relating to some reasonable spin off aspect of the project.

The second purpose is to share a project unit template that interfaces the *structure* of authentic instruction, curriculum standards, and assessment standards with the *flexibility* of content areas, variable resources, and heterogeneous student groups. We first dreamed of scheduling the same group of students for a two hour block—language arts and science—but settled on accepting the reality of serving all seniors, a few juniors, and five distinct groups that met in variable configurations through four different daily courses. Using the components of the template, we focused on creating a unit that included all crucial instructional and curricular components, regardless of peculiarities in schedule or student groupings. The contents of each Final Portfolio was individualized to meet objectives tailored for each of the five groups of students. It is our intention that this template will work for you too!

The goal in using this template is to expand in a holistic way, student achievement, and to challenge traditional approaches to isolated lessons and conventional, textbook centered assessment methods.

Narrative:

Glen Lake students describe, in their final assignment of this project—a reflective essay—why this project was a “Best Practice.”

“To be able to present to an audience is gratifying, to know what my direction and focus are because I created it and it is based on my knowledge that I gathered. As a reader and a writer I now realize the importance of reading critically and applying what I learn through examples in my own writing.” Gaia

“What better way to have fun and do a project that is part of business in the real world, than creating a brochure. The brochure is a powerful tool in the advertising work, a master craft, elegant, proud, and powerful if set up and displayed properly. Being given an assignment with such qualities, I was eager to participate.” Jordan

“As a writer I learned how to write less and say more. I learned how to be careful with information and not put extra words in when they are not needed.” Dawn

“Through the entire process we were also communicating with a telementor. Our contact was a marketing specialist from California and we communicated with her through email. The technology we now have that gives us the ability to receive help from professionals across the country amazes me.” Sandy

“Describe a *physics concept*, like weightlessness, in a brochure format using *literary techniques*? It seemed a little too farfetched to be able to be connected. But by the end of the weeks that we had to complete the assignment, our finished product really made me proud.” Sarah

“Touching on the subject of the internet, this is where most of our information came from; the mentor program is a great example of how limitless our access to information is. For example, <http://www.ncsa.uiuc.edu/>” Jacob

“The creation of the brochure required completion of many things before any design was made on the computer. Annotations of both the Physics text and the Lewis Thomas book, Late Night Thoughts on Listening to Mahler’s Ninth Symphony were required. Every day we emailed Gene to inform him of our progress and answer any questions he had. We researched the concept of gravity and Isaac Newton on the internet. The audience, purpose, and strategies we chose to use were spelled out on paper. Finally, drafts of the text were made. Only after all of this was complete, we began to design the layout of the brochure.” Betsy

“I learned that my reading skills will start to help my writing skills. Examples of methods used to show a concept in text writing could easily be applied to a different format, like a brochure, even though it took me a while to see that connection.” Gabrielle

As teachers the key reasons we found this project to be a “Best Practice” are the:
Use of technology as a process tool in order to accomplish the content area assessment requirements—email, internet, Microsoft Publisher Connection to Hewlett Packard Telementoring Program, connecting students to individually matched practicing professionals by email through the duration of the project—linking the world of work with each students “real” world—school, <http://www.telementor.org/hp>
Presentation of assessment brochure to a designated audience beyond the project population

Our response to this project as educational professionals are noted on the template in three distinct ways:
by identifying the role of authentic instruction standards, in the left column, written in italics,
by weighing the validity of the assessment tool with standards for assessment, in the right column on page one, and
by matching curriculum benchmarks in Language Arts, Science, and Technology as the project lessons evolve, in the right column throughout the template.

Curriculum Benchmarks:

The primary integrated Michigan Framework content standards through the project unit are:

MI.ELA.4.HS.5 Recognize and use levels of discourse appropriate for varied contexts, purposes, and audiences, including terminology specific to particular fields. Examples include community building, presentations integrating different disciplines, lessons comparing fields of study, promotional material created for an interdisciplinary project, and videos designed to inform or entertain diverse audiences.

MI.SC.I.1.HS.8 Discuss topics in groups by being able to restate or summarize what others have said, ask for clarification or elaboration, and take alternative perspectives. (Key concepts: A newspaper or magazine article discussing a topic of social concern. Real-world contexts: A newspaper or magazine article discussing a topic of social concern.)

MI.SC.II.1.HS.2 Describe some general limitations of scientific knowledge. (Key concepts: Understanding of the general limits of science and scientific knowledge as constantly developing human enterprises. Real-world contexts: See Using Scientific Knowledge.)

MI.TECH.2.HS..3 Retrieve, communicate, organize, evaluate, and manipulate information using a technological system.

Other secondary content standards, as noted on the template, are required to excel through the unit lessons.

Two other standard strands used in developing the unit are noted in this template:
Authentic Instruction Standards, left column throughout, italics
Assessment Standards, right column, page one

In the right column, the project template indicates which Curriculum Benchmarks for Language Arts, Science (MEGOSE reference in parenthesis), and Technology are featured for each component of this unit. Identifying Benchmarks is a critical element in making lesson design decisions and is therefore included as an integral part of the template.

The left column outlines the process components necessary to prepare a standards based unit. These steps are marked with bullets. Authentic instruction standards percolate throughout the template, and are noted in the left column in italics. Finally, the center column features the particulars of the lessons that form the project unit. Together these lessons form the scope and sequence of the unit.

Total amount of time for project:

This project is outlined as a seven-week unit. These students are enrolled in various combinations of content areas—Language Arts and Science—which meet 40 minutes daily. Each course requires approximately 30 minutes of homework each night.

Materials/Hardware/Software:

The resources we used for this project are listed in the template. But substitutions for text resources are possible. Any physics text could be substituted for the one listed, and authoritative information on the craft of explaining concepts along with professional non-fiction examples for students to read, annotate, analyze and discuss could substitute for the composition texts listed. At Glen Lake there are 6 computers accessible through the day in both the science and language arts classrooms used for this unit. Internet access is necessary for this project. The Hewlett Packard Telementoring program was enriching for our students, but could be substituted with community mentors in another situation. Students used Microsoft Publisher to complete their publish quality assessment brochure, but other publishing software could be substituted while keeping assessment objectives in tact. As long as all template components are included, particular project details can be substituted, as resources dictate, without losing the integrity of the student achievement benefits.

Teacher Preparation:

Teacher teams must take common planning time to collaborate and design the best unit based on the components outlined in the template, substituting resources and objectives as their team dictates. The template is organized to facilitate reading as a finished plan, BUT, it does not represent the order which was used to generate the unit. THIS IS IMPORTANT.

Depending on your learning style, and the way your team chooses to create the process of generating a unit, you will BEGIN at different points in the process. We started with assessment. We decided, based on our curriculum goals, what we wanted our students to be able to do, and know at the end of the unit. Then we wrote a rationale, and outlined experiences we thought would lead to skills necessary for quality product, and the unit continued to evolve. And we found the process to be recursive; we revisited former steps as we evolved through the creation of the unit. This may not be where you begin or how your unit will evolve. You may have a successful project that you want to expand, enrich or integrate. So your beginning point might be the “procedure” step in the template. However, while the *order* of the process is not as significant, the template loses its effectiveness if any process components are left out. Just as a sentence fragment does not represent clear developed thought like a complete sentence can, a project unit with missing template components—curriculum and assessment standards, authentic instruction—is not as solid as a unit rooted in the process components of the template.

Teachers need to be able to navigate publishing software, the internet, and be fluent in the content vocabulary and concepts in order to facilitate substantive conversation.

Lesson Template Components

Integrated Model Lesson

Lesson Template Standards/Benchmarks

Title
Content

Glen Lake Goals 2000, Content in Context
Interdisciplinary physics, language arts,
technology

Language Arts
Science
Technology

Purpose

To integrate technology, science, and language arts teaching and understanding in order to focus students' attention on content learning, problem solving, and publishing. This learning experience integrates standards and benchmarks, requires authentic instruction as described by Newmann, Secada, and Wehlage, and authentic assessment as defined by the Center on Organization and Restructuring of Schools at the University of Wisconsin.

Rationale

According to Axelrod and Cooper, co-authors of Reading Critically, Writing Well, the process and skill of explaining concepts is, "the writing job required most frequently of professionals in every field." The theme of patterns of change, the work of Newton and Kepler, and the far-reaching scale of gravitational influence all require understanding of conceptual information. Competency in the standards and benchmarks identified in these lessons require that students practice the process of explaining concepts using strategies modeled in professional examples. They must also demonstrate understanding of concepts, technical terms, and application problems in the study of "Universal Gravitation." Technology tools are required for success through this unit.

Assessment
Standards
Addressed

Students will demonstrate proficiency in seven standards for assessment in a Final Portfolio collection of work that requires research questions, research findings, reading, annotating, and analyzing models that demonstrate explanation of concepts, analysis of assessment alternatives, design, creation and publication of a brochure which will confidently and efficiently explain a chosen concept to a designated audience.

University of Wisconsin
Seven standards for assessment:
organization of information,
consideration of alternatives,
disciplinary content,
disciplinary process,
elaborated written communication,
problem connected to the world beyond the classroom, and audience beyond the school.

Assessment continued	The assessment tool will be a <i>portfolio</i> of reading and research requirements selected from a menu of possibilities, along with a <i>publication</i> explaining a concept. This publication will demonstrate proficiency in using process of explaining a concept using rhetorical strategies, in using technical terms accurately, and in considering audience as a primary consideration in the design and structure of the publication.	
Assessment Tool		
Resources	<u>Reading Critically, Writing Well</u> , Axelrod and Cooper <u>Physics, Principles and Problems</u> , Zitzewitz and Neff <u>Readings for Writers</u> , McCuen <u>Late Night Thoughts on Listening to Mahler’s Ninth Symphony</u> , Lewis Thomas Internet Explorer Email Telementoring with practicing Professionals (Hewlett Packard) Publishing software Self selected resources not listed	
Procedure	Week One	
Overview	Introduction—Rationale “What You Will Learn—and Do!” Concept Menu—Review, New, Extended “How High is Up?”	MI.ELA 1.HS.1,2,3,4 2.HS.2,3 3.HS.6
Substantive <i>Conversation</i>	“ <i>The Emperor’s New Clothes</i> ” Mahler’s Ninth Symphony Assignment Hand-Outs/Discussion	4.HS.5 5.HS.1,3 6.HS.3 7.HS.1
Read and Analyze	TLW read annotate and analyze three professional examples of writing to explain. “ <i>Is Sex Necessary?</i> ,” Quammen (parthenogenesis), “ <i>Reading Against Texts</i> ,” Nodelman (uncovering assumptions), “ <i>Marked Women</i> ,” Tannen (linguistic marked forms),	8.HS.3,5 9.HS.1,2 10.HS.1,2 11.HS.2 12.HS.2,3

Continue Reading/ Analyzing	<p>Week Two</p> <p>TLW choose three additional examples using yet more writing strategies for effective explanation of concepts. Possibilities include: “Welcome to Cyberspace,” Elmer-Dewitt (cyberspace), “The Autotelic Self,” Csikszentmihalyi (success/inner satisfaction), “Reincarnation,” McCool (reincarnation), “On Natural Death,” Lewis Thomas (death)</p> <p><u>Late Night Thoughts on Listening to Mahler’s Ninth Symphony</u>, Lewis Thomas</p>	<p>MI.ELA. 1.HS.4,5 7,HS.1,3 10,HS.2 11.HS.2,3,4</p>
Merge with Invention	<p>(conscious science)</p> <p>Invention ideas will be discussed as a class and in small groups as the reading, annotating of reading and analyzing of each selection progresses. Strategies for successful writing to explain concepts will be analyzed and identified.</p>	<p>MI.SC. I.1.HS.1,7,9(C13, 19, 21) II.1.HS.1,3(R11, 13) IV.3.HS.1(PM09) V.4.HS.3,6(ES9, 13)</p>
Substantive Conversation Higher-Order Thinking Deep Knowledge	<p>Week Three</p> <p>The physics student will read and annotate selected models from the list above, as well as Chapter 8, “Universal Gravitation.” Students in AP Language, English 12 and Physics are all working during class time to understand the craft of explaining concepts, the concepts of universal gravitation, and the rudiments of the layout and design of a brochure publication. <i>See Appendix</i> for assignment schematic and exhibits demonstrating competency of each assignment. This week is dedicated to invention and connection. Invention steps are taken to select a concept to explain. This requires conversation with teachers and peers, review of resource text and reference texts. Connections with research resources are established with practicing professionals via email (telementoring program), and practicing professionals by interview. Connections to information beyond the texts are required.</p>	<p>MI.TECH. 1.HS.7 2.HS.3,4 3.HS.3,4</p>
Invent and Connect	<p>They could include published technical literature, and internet publications and</p>	
<i>Connections to World Beyond Classroom</i>		
<i>Substantive Conversation</i>		
<i>Connections to World Beyond Classroom</i>		

	journals. Students are required to cite at least three unrelated (in format) sources using APA style.	. MI.ELA.12.HS.5 MI.TECH.5.HS.6
Higher-Order <i>Thinking</i>	Week Four A primary consideration prior to drafting is purpose and audience. The purpose is to explain a selected concept efficiently and confidently. The audience for this publication will be 8th grade science students. Writers will discuss and analyze the audience. What will these readers know already about this concept? What might they want to learn about this concept?	
Create and Draft		MI.ELA. 2.HS.2,3 3.HS.1,2,3,5,6 6.HS.1,2
<i>Deep Knowledge</i>	Using strategies identified in professional models read (see week one and two) students begin drafting the project brochure.	MI.SC. II.1.HS.1,2 (R11, 13)
<i>Higher-Order Thinking</i>	A minimum of four strategies are selected from the menu of possibilities—illustration, example, definition, comparison, anecdote, classification, cause and effect. The first draft of each strategy practiced will be reviewed by the teacher and another student. Students will complete physics vocabulary and study guide.	MI.TECH. 2.HS.1,2,4 3.HS.1,2,3,4
<i>Deep Knowledge</i>		MI.ELA. 3.HS.6 4.HS.1,4,5 7.HS.2,4 8.HS.1,3,5
<i>Connections to World Beyond Classroom</i>	Week Five Students navigate Publisher software with teacher-student tutorial as needed. Text and pictures are processed in Publisher. Students print a rough draft copy of the brochure using grayscale, without pictures. This draft is reviewed by the teacher and at least two peers.	MI.SC. I.1.HS.1,8 (C13, 20) II.1.HS.1,2 (R11, 13) V.4.HS.3,6(ES9, 12)
Create, Draft, Revise	Week Six Brochure revision and editing continue. Final brochure portfolio due at the end of the week. Evaluation rubric is reviewed and any questions answered.	MI.ELA. 8.HS.4 11.HS.2,3 12.HS.1,2,4,5 MI.SC. I.1.HS.8(C20)
<i>Substantive Conversation</i>	Week Seven Preparation for presentation of brochure will include matching students—12 graders with 8 th graders. Each group will prepare for their respective roles in the	MI.ELA. 6.HS.1,2,4 8.HS.1,5 12.HS.5 MI.SC. I.1.HS.8(C20)

<p><i>Higher-Order Thinking</i></p>	<p>Science Forum where students will meet and talk about concepts related to universal gravitation.</p>	<p>MI.ELA. 10.HS.3</p>
<p>Present and Publish</p>	<p>Brochures will be published on personal Web pages and emailed to telementors.</p>	<p>MI.SC. I.1.HS.8(C20) II.1.HS.2,3 (R13, 14) IV.3.HS.1 (PM09) V.4.HS.3,6 (ES9, 12)</p>
<p><i>Substantive Conversation</i></p>	<p>At the close of this week each 12th grader will add a one-page reflection essay to their Final Portfolio. This essay will include a personal evaluation of this project...what was required, what was learned about self as a reader and a writer, what contributed to success, what was most valuable, and how this learning might be used in the future.</p>	<p>MI.TECH.2.HS.2</p>
<p><i>Connections To World Beyond Classroom</i></p>		<p>MI.ELA. 7.HS.3 10.HS.1,2,3 12.HS.2,4,5</p>
<p>Reflect</p>		
<p><i>Higher-Order Thinking Deep Knowledge Connections to World Beyond Classroom</i></p>		<p>MI.TECH.6.HS.1,2</p>

Prerequisite Student Skills:

Students will need reading, and writing ability in order to read, annotate, analyze and discuss the professional models selected (depends on resources used). That includes the physics text, and any language arts text information on explaining concepts. Computer literacy is required in order to use the internet and the publishing software. However, do not underestimate the ripple effect of a few knowledgeable students coupled with an encouraging teacher and the necessary technology. When given adequate time, reasonable guidelines, clear expectations, and a suitable process, students will learn whatever necessary to complete a well-defined, standards based assessment. Email accessibility and competence to communicate with practicing professionals is desirable, but interviews by phone or in person could be substituted.

Student Activities:

The unit project overview for students is included in the Appendix; it is the student version of the center column of the template. The teacher introduces the project, asks questions and asks students to annotate the handout for the next day's class discussion.

Assessment/Evaluation:

Explain the specifics of the rubric used for evaluation of this project. Explain how each portion of the portfolio contents will be weighted depending on which course(s) the student is taking and which resources are used to explore content. For our unit, blue was science credit, black was language arts credit and red was for credit in both classes.

Evaluation Rubric,

Portfolio, 60% of Final Grade

_____ Annotations

RCWW pgs. 159-161, 203-212

Chapter 8, Physics, Strategies Identified (5)

_____ Exercises

Dialectic Journal

Or RCWW Responses, pgs. 169, 177, 184, 190/196, 202

_____ Concept, Purpose, Audience

_____ Strategies Selected, Draft Completed

_____ End of Chapter Problems (5)

1,5,16,20,21,24,25

_____ Vocabulary and Study Guide (10)

_____ Research Notes, Email Transcripts

_____ Three Sources Identified and Correctly Cited

_____ Layout Draft (Grayscale)

_____ Final Brochure, Type 5 Write (21)

FCA's *Technical Vocabulary Used Correctly

*Science Content Accurate

*Explain Concept Strategies Used Confidently/Efficiently

for specified audience

Presentation of Brochure, 20%

Reflection Essay, 20%

Final Project Grade

Appendix

The following Appendix supplements the template in three ways.

Unit Project Overview for Students

Complete list of assignments for AP Language Students, English 12 students, and Physics students

Student Work Exhibits, Microsoft Publisher necessary to read

Photograph of Publication Presentation, jpg format

GOTO NEXT PAGE

Unit Project Overview for Students

Goals 2000, Content in Context, Language in Physics

“The Emperor’s New Clothes and Mahler’s Ninth Symphony”

AP Language and English 12, Explaining Concepts

Physics, Universal Gravitation

Rationale

Unlike autobiographical writing which features a writer's experiences and feelings, or observational writing which engages and informs, explanatory writing confidently and efficiently presents information. According to Axelrod and Cooper, co-authors of Reading Critically, Writing Well, explaining concepts is “the writing job required most frequently of professionals in every field.”

Objectives

Explanation may be based on firsthand observation, but it always moves to general concepts and ideas. “Concepts include abstract ideas, phenomena, and processes,” according to RCWW. But of course you should be aware that there are levels of abstraction. For example, in physics, “atom” is more abstract than “electron.” Your interest, knowledge and purpose will determine the level of abstraction that you choose, AS WELL AS, the characteristics of your audience.

Your assignment is to create a single page publish quality brochure (2-sided) that explains a concept you have selected (from gravity chapter if you are in Physics). For this brochure project, your audience has been identified as 8th grade science students (unless you have chosen an alternative). Choose a concept that interests you and that you want to study further. Consider carefully what your readers already know about the concept and how your brochure might add to what they know.

Procedure

1. Read professional examples of writing to explain.

“Is Sex Necessary?,” Quammen (parthenogenesis),

“Reading Against Texts,” Nodelman (uncovering assumptions),

“Marked Women,” Tannen (linguistic marked forms),

“Welcome to Cyberspace,” Elmer-Dewitt (cyberspace),

“The Autotelic Self,” Csikszentmihalyi (success/inner satisfaction),

“Reincarnation,” McCool (reincarnation),

“On Natural Death,” Lewis Thomas (death)

Late Night Thoughts on Listening to Mahler’s Ninth Symphony, Lewis Thomas
(conscious science)

Physics students read Chapter 8, “Universal Gravitation,” and some of above.

2. Invention ideas will be discussed as a class and in small groups as the reading, annotating of reading and analyzing of each selection progresses. Physics students read and annotate Chapter 8.

3. After a concept is chosen, ask the following about your audience:
What would your readers be likely to know already about this concept?
What might they want to learn about this concept?

Find out more about your concept. Using any resource available to you, skim and take notes from several sources to see how you might limit and focus your brochure. You will take more notes than you will ultimately use, but this step is necessary in order that your direction is CHOSEN by you, not stumbled upon, or grasped in desperation at deadline. Telementoring proteges are required to use mentors as a source for this step.

Now review examples of strategies used by professional writers to explain concepts. Which information will you include and how will you present it to your audience? Answer the following questions in a sentence or two. These answers will guide you in determining which strategies to use and where you might consider further research.

What term or terms are used to name the concept, and what do they mean? (defining strategy)

With what other concepts does it belong, and how can it be broken down into subclasses? (classifying and dividing)

How is it like and unlike related concepts? (comparing and contrasting)

What is a particular example or instance of it? (illustrating)

How does it happen, or how do you do it? (narrating the process)

What are its known causes or effects? (reporting causes or effects)

Tell a story (narrative) that features this concept alive in the world—credit source or tell an original story. (anecdote)

Draft your brochure using the above strategies that show your understanding of the concept, and that will be best suited to guiding your audience to understand. Draft your brochure considering layout features we have discussed, and knowledge you have about your audience.

Prepare a peer editing guide that states your purpose (specifically) and offers three areas of critique for your editor.

One area of critique must include a complete list of all strategies you have used to explain the concept.

Another area must be the visual appeal—layout and accuracy—of your product.

The third area of critique is your choice. Choose an aspect of your publication where you need improvement ideas.

Print a final copy of your publication to be submitted for graded credit. When this copy is returned, make changes and print TWO copies. One copy will be for your portfolio, and the second is for presentation to your chosen audience.

Prepare for verbal presentation to 8th grade student, or other designated audience.

10. Submit a reflection essay (1 page) which will accompany your brochure as a portfolio exhibit. Begin with a description of what you are most pleased with as you reflect on this project. Explain what contributed to your achievement. Summarize what this project required of you, what you learned about yourself as a reader and a writer. Conclude with a statement about how you might use this learning in the future.

.....go home and eat Jell-O....

English 12, and AP Language Assignments for Content in Context

English 12 assignments in Reading Critically, Writing Well

Read, and annotate pages 159-161.

Complete a Type Three Write identifying two features that define the purpose of writing to explain.

Complete the collaborative activity on page 161-162 with your editing team.

Read and annotate the professional model titled, "Is Sex Necessary? Virgin Birth and Opportunism in the Garden."

Complete the "Analyze" activity on page 169. "Review Quammen's use of each strategy, and select one to analyze more closely." Be prepared to discuss in class how each strategy works, and how each helps readers understand the concept, parthenogenesis, which Quammen is explaining.

Read and annotate another model, "Reading Against Texts," pages 170-175.

Complete the, "Questioning to Understand and Remember" activity by reading the Appendix 1 passage and writing an original question at the end of each paragraph of this professional model.

Be prepared to discuss ideas for your own writing. If you need prompts see page 177, "Considering Ideas for Your Own Writing."

Read and annotate "Marked Women," pages 177-183.

Complete the "Write" activity on page 184. "In a few sentences, explain what you have learned about how Tannen uses illustration as a strategy for explaining an abstract concept.

Choose either "Welcome to Cyberspace" or "The Autotelic Self" to read or annotate.

Choose a "Reading Like a Writer" activity on either page 190 or 196. The response you choose must show that you recognize the use of comparison/contrast in explaining concepts.

Read and annotate "Reincarnation."

Complete the "Write" activity on page 202. "Write several sentences, reporting what you learn about McCool's use of sources in her essay."

Read and annotate pages 202-212, "Thinking about What Makes Essay Explaining Concepts Effective," "A Guide to Writing Essays Explaining Concepts," "Invention," "Drafting," "Reading a Draft Critically," "Revising."

AP Language Assignments, Readings for Writers

Read and annotate "On Natural Death," pages 402-404.

Complete “The Strategies,” and “The Issues” questions on page 405
Selection two other professional models of “Explaining: Illustration and Definition” and complete “The Strategies” questions.

Choose two electronic sources for information on the book titled, Late Night Thoughts on Listening to Mahler’s Ninth Symphony by Lewis Thomas. Two I can recommend are on the board—www.nytimes.com, and, www.amazon.com. (The New York Times Book Review can be accessed by the Mona Lisa computer only.)

As you read Late Night Thoughts on Listening to Mahler’s Ninth Symphony record your impressions, interpretations, and critical review observations in a dialectic journal. The frequency of your entries depends on your efforts as a critical reader. The minimum requirement for credit is to identify at least two passages in each chapter; one of these passages must stir your comment on content, and the other observations about style and structure which you can articulate using accurate vocabulary (diction, syntax, irony, satire, metaphor, simile, comparison, contrast, definition, illustration, example, rhetorical question, tone, mood, and others from your list).

ALL SENIORS

After reading these professional models, discussing the menu of strategies you can use to explain concepts efficiently and confidently, and percolating ideas of concepts to explain for this assignment, you are ready to research, interview, and discuss a selected concept. As you continue through the Invention, Drafting, Revising, and Publishing steps in this project, keep a log of sources used. This is a *Final Portfolio requirement*. This includes internet addresses, email messages (either printed out, or date, time and site logged) as well as traditional source identification.

Layout draft—WITH REVISIONS MARKED—must also be included in your Final Portfolio as proof that you have critically reviewed your publication before final printing. Submit a final brochure in a page protector along with your Final Portfolio.

Present your publication to your partner 8th grade student.

Reflect on the reading, writing, researching, questioning, and presenting while working on this project. Write a one-two page reflection on your learning.

Begin with what you are most pleased with in your publication, and explain what contributed to this achievement.

What did you learn about the concept that is most interesting to you?

What did you learn from the professional models you studied?

What did you learn about research, formulating questions for research, or information gathering in general that you did not know before?

What did you learn about the craft of explaining concepts that you see as beneficial, and that you may use in the future?

What did you learn about yourself as a reader or a writer that you did not know before?

Describe how you will use any of what you learned in this project in the future.

Chapter 8 Universal Gravitation

Day	Topics	Section	Pages	Activity	Assignment
<i>Pre</i>					
0	Universal Gravitation Concept/Topic Sheet			Pick Topic for Brochure	
<i>Week 1</i>					
1	Motion in Heavens and Earth	8.1	155-163	Annotate &	Finish Annotation
	Kepler's Laws			ID the 6 Strategies	& ID strategies
	Universal Gravitation				
	Weight of Earth				
2	Same as Above			Discuss & Example Problems	EOC 1,5,16 practice prob. 1-4
3	Law of Universal Gravitation	8.2	164-170	Annotate &	Finish Annotation
	Satellites			ID the 6 Strategies	& ID Strategies
	Weight & Weightlessness				
	Gravitational Field				
	Einsteins Theory & Black holes				
4	Same as Above			Discuss & Example Problems	EOC 20,21,24,25 practice prob 5-8
5	Review for Test (11th) Work on Brochures (12th)			Vocab and Study Guide	
<i>Week 2</i>					
6	Work on Brochures/Web Pages				
	Look at Concepts (12th)				
	Lab 8.1 Kepler's Laws (11th)				
7	Continue work on Brochures				

	Lab 8.1 Kepler's Laws (11th)				
8	Finalize Materials				
9	Chapter 8 Test (11th)				
	Draft Brochures due (12th)				
10	Catch up - Sharing - Go over test				
Week 3					
15	2nd Draft Brochure due (12th)				
Week 4					
20	3rd Draft Brochure due (12th)				
Week 5					
25	Final Draft with Paper due (12th)				(1-22-99 Edition)