

Curriculum Units by
Fellows of the
Yale National Initiative
Guide
2015

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Preface

In April 2015 the Yale National Initiative to strengthen teaching in public schools® accepted public school teachers from twenty school districts in eight states and the District of Columbia to participate in six national seminars held at Yale University. The Initiative is a long-term endeavor to influence public policy on teacher professional development, in part by establishing exemplary Teachers Institutes for high-need schools in states around the country.

Teachers Institutes are educational partnerships between universities and school districts designed to strengthen teaching and learning in a community's high-need public schools. Evaluations have shown that the Institute approach exemplifies the characteristics of high-quality teacher professional development, enhances teacher quality in the ways known to improve student achievement, and encourages participants to remain in teaching in their schools.

Seven of the Yale National Fellows came from school districts that are participating for the first time this year: District of Columbia Public Schools; Franklin-McKinley School District in San José, CA; and Cape Henlopen School District, Indian River School District, and Polytech School District in Delaware. Forty-two of the Yale National Fellows are from school districts that already are planning or exploring the establishment of a new Teachers Institute for the Bay Area, CA; Chicago, IL; the Diné Nation, AZ and NM; Pittsburgh, PA; Richmond, VA; San José, CA; and Tulsa, OK. Other National Fellows came from school districts with existing Teachers Institutes located in New Castle County, DE; New Haven, CT; and Philadelphia, PA. Overall, nearly two thirds of the National Fellows were participating for the first time.

The National Fellows attended an Organizational Session of the seminars held in New Haven on May 8-9. The seminars reconvened during a ten-day Intensive Session from July 6-17 and concluded in mid-August when the Fellows submitted their completed curriculum units. The six seminars were:

- “Literature and Information,” led by Jessica Brantley, Associate Professor of English;
- “Explaining Character in Shakespeare,” led by Paul H. Fry, Professor of English;
- “Problem Solving and the Common Core,” led by Roger E. Howe, Professor of Mathematics;
- “History in our Everyday Lives: Collective Memory, Historical Writing, and Public History,” led by Mary T. Y. Lui, Professor of History and of American Studies;

- “Using Film in the Classroom,” led by Brigitte Peucker, Professor of Film Studies and of German; and
- “Physiological Determinants of Global Health,” led by W. Mark Saltzman, Professor of Chemical and Biomedical Engineering.

The purposes of the program are to provide public school teachers deeper knowledge of the subjects they teach and first-hand experience with the Teachers Institute approach. This increases their leadership in an existing Teachers Institute or prepares them to lead the development of a new Teachers Institute. Each teacher writes a curriculum unit to teach his or her students about the seminar subject and to share with other teachers in their school district and, over the Internet, with teachers anywhere. The curriculum units contain five elements: content objectives, teaching strategies, examples of classroom activities, lists of resources for teachers and students, and an appendix on the district academic standards the unit implements. In these ways the curriculum units assist teachers in engaging and educating the students in their school courses.

The curriculum units National Fellows wrote are their own; they are presented in six volumes, one for each seminar.

The Yale-New Haven Teachers Institute® is a permanently endowed unit of Yale University, which undertook the National Initiative in 2004.

James R. Vivian

New Haven

August 2015

I. Literature and Information

Introduction

Literature and Information: admittedly, it's not a narrow topic. One of my high school teachers had a poster on her desk that read, "What in the world *isn't* chemistry?" But one might better ask: what in the world isn't either literature or information? In order to make sense of this broad topic for those who were not a part of this Yale National Initiative seminar, this introduction will address how and why the concept of the seminar developed, as well as what is at stake for us in thinking today about the relation of literature to information in the classroom, or (for this is what we really mean when we use those words) the relation of fiction to nonfiction.

The first thing at stake is a conversation about educational policy nationwide. The Common Core, now adopted by nearly all of the 50 states, mandates changes in the distribution of fiction and nonfiction across the K-12 curriculum: literature on the one hand, and "reading for information" on the other. The scariest number, for teachers of English literature, is the expected 70/30 split for high school students between nonfiction and fiction. The proposal is that 70 percent of what students read should be nonfiction—ostensibly to prepare them better for the kinds of reading that they will need to do in life, and particularly for the kinds of reading that they will need to do on the job. This preference for nonfiction is worth questioning for many reasons, not least of which is the instrumentalizing of education for the purposes of the workplace. But even if we accept the premise that students are primarily in training to be good workers, there are strong arguments supporting the value of reading imaginative writing, with its complexity of language and richness of ambiguity, to train students' critical and analytical faculties. It is not clear to me, at least, that reading poems or novels is worse preparation for the kinds of thinking one needs to do as a productive citizen than reading Op-Eds.

Moreover (and this has been a main concern of articles published in the popular press recently)¹ the necessity to squeeze literature into ever smaller parts of the school year has led also to the frequent excerpting of fiction, such that students never have the opportunity, or the challenge, of reading a whole novel, or engaging in a sustained way with a writer's craft over an extended period of time. Instead, students read excerpts of novels in order to connect their themes with contemporary concerns, further impoverishing the experience of reading. Should we be teaching *Tom Sawyer* in order to think about youth unemployment? Or teaching *King Lear* to get to debates about end-of-life issues? As important as those topics are in contemporary society, works of literature such as these—as some rightly point out in letters to the editor—have much more to offer than that. The commerce between the present and the past should go in both directions, and works of literature are ends in themselves, not only means to relevancy.

But even as there are some horror stories coming out of this new emphasis on nonfiction, there are some opportunities, too, for lovers of language—or at least I hope there are. First of all, it seems that the new guidelines run the risk of some crucial misunderstandings: the balance of nonfiction to fiction advocated by the Common Core is not to be 70/30 in English alone, but across the whole curriculum. Indeed, a student’s English class might account for the 30 percent of fiction, filled with all of the novels, short stories, poetry, and drama that classes in English literature have always offered. Part of the idea, I think, is to suggest that students should be reading more quality nonfiction in their other classes—in history, science, even mathematics. And here there is an opportunity: if students could be reading not only nonfiction, but *good* nonfiction (“quality”), across the curriculum, then they could be growing constantly as readers, writers, and thinkers. In this optimistic vision of things, students are not to be reading instruction manuals or train schedules (this was the nightmare scenario some had feared), and they are not even to be reading an American history textbook. Instead, they should be grappling with some of the most amazing writing that both underlies and communicates that history: Jefferson’s “Declaration of Independence,” Lincoln’s “Gettysburg Address,” Douglass’s “What to the Slave is the Fourth of July?”

The primary way to combat the problems of the Common Core, and at the same time to take advantage of the opportunities the new curriculum represents, is to make sure that the nonfiction we’re asking our students to read is “quality” (an elusive measure of value, of course). But there are also other strategies. One of these is to take advantage of the suggestions here for rich interdisciplinary study across many modes of discourse: fiction and nonfiction, but also the performing and visual arts: theater, music, dance, painting, sculpture, photography. Crossing among these modes forces us to think critically about how we understand them: what do we do when we read fiction? Or nonfiction? Are our methods of interpretation that different?

Because the goal of all good seminars should be confusing the categories we thought we had understood, the first thing we read in the organizational session of “Literature and Information” was an essay by historian Hayden White, “The Historical Text as Literary Artifact.”² The argument of this provocative essay is made by its title: the historical text, far from being a transparent accounting of events, should be thought of as a narrative, shaped like any narrative by the rhetorical needs of its author and its audience. White suggests that we should think of any historical narrative as a story being told from a perspective and for a reason. Just as we glean information from literature, so we can treat “informational” texts (nonfiction of the right kind) as “literature.” When White calls the historical text a “literary artifact,” he signals both something about the status of the text—what it *is*—and also something about how it is *used*—how we read it, and in what spirit we approach it. If the historical text is a literary artifact, that means we can apply to it the techniques of reading that prove most helpful when we read fiction. We can ask about its structure and its form, as well as its content. We can ask about its audience and its context; we can analyze the rhetorical devices that make it persuasive, or not.

White's basic proposition—that historical writing is itself a kind of fiction—provided a theoretical provocation for our more practical thinking about the relation of literature to information in the remainder of the YNI seminar. We began to think about these two rich modes of writing in conversation with each other by reading Anne Fadiman's *The Spirit Catches You and You Fall Down*, a compelling and beautiful example of creative nonfiction that shows how a young Hmong girl's epilepsy reveals the differences between her family's culture and the cultures of American medicine.³ Like White's essay, Fadiman's book argues that histories and stories, fact and fiction, cannot be definitively separated from each other. In the intensive session, we continued to read some of the best examples of both imaginative fiction and imaginative nonfiction that we could find, in order to explore how the YNI Fellows might weave the two together, productively separating and also combining them, in the curriculum units they were writing.

Our seminar Fellows included teachers who teach across the K-12 spectrum—from kindergarteners to high school seniors—and the subjects of the units accordingly vary quite a lot. But precisely because we all face different pedagogical situations, both the seminar discussion and the curriculum units proved to be especially rich. Moreover, given our diversity, it was surprising how consistent the units in some ways proved to be: like White and Fadiman, all of the units ultimately imply that we construct ourselves through the stories—fictional or nonfictional—that we tell.

Several of the units took up the topic of culture through the lens of fiction and nonfiction. Joseph Parrett ("Defining Culture through the Lens of Literature and Text in Kindergarten") and Nadra Ruff ("Different Cultures in Chicago's Neighborhoods: Chinese and Mexican Communities") both wrote units that introduce young students to the Mexican and Chinese cultures through story, song, image, and history. Taking advantage of the ways in which multimedia can inspire imaginations, both Fellows seek to present differences among cultures that might vary substantially, as well as similarities among human societies that share many features in common. LeTanya James ("Farming, Food, and a Balanced Navajo Lifestyle") has constructed a unit that draws on her own cultural knowledge close to home: Navajo foodways and food histories form the basis of a unit that seeks to inform children in the Diné Nation about healthy eating, a unit that will teach young students new concepts by connecting them to their own cultural history with food and farming.

Several of the units designed for older students used fiction and nonfiction to explore the ways in which stories can be used to construct societies for good or ill. Teresa Rush ("Dystopian Societies in Adolescent Literature: Can Compliance and Freedom Coexist Peacefully in a Dark, Dystopian World?") wrote a unit about dystopian fictions, a very popular genre currently for adolescents in both novel and film. She hopes to use nonfiction to challenge her students to think about why fictions of this sort are so compelling. What connections can be made to history? To our own experience of communal life? Luke Holm ("Helping Students 'See Beyond the Pale'") also hopes to

open his students' eyes to more than they usually see about the society they live in. Inspired by his students' potential, he hopes to provide them with critical tools to better understand their world and to make good choices about their contributions to life on earth. Keisha Wheat ("Words of Patriotism: The Pledge of Allegiance") will use her unit to inspire much younger students to make similarly good choices as citizens, as they open their eyes to the implications of extremely familiar words: the pledge of allegiance. Her students will be inspired by each phrase of the pledge to think hard about what citizenship means for them, and how they can productively be a part of this nation. Julie So ("Biographies and Autobiographies: Portraits of Peacebuilders") also hopes to inspire her young students with words, biographies of great figures who can model peace building behaviors for her own students' developing stories—their autobiographies.

The history of this nation provides many compelling stories taken up by a final group of units. Joyce Arnosky ("Wandering Through The Bad Times: Children Making Their Way Through the Great Depression") has written a unit based on award-winning fiction, as well as on letters, newspaper accounts, photos, and songs from the period of the Great Depression, harnessing the power of interdisciplinary experience to provide her students with a sense of the era from the perspective of its children. Valerie Schwarz's unit ("Jim Crow, Civil Rights, and the Integration of Schools") takes in both local Richmond and national histories of school integration, using prize-winning fiction as well as historical documents to create an account of the events and emotions of the struggle. Krista Waldron ("Race and Riot: Exploring Tulsa's Conflicts in Fiction, Nonfiction, and Image") also has based her unit on a locally specific event—the 1921 race riots in Tulsa, OK. But she shows how that event can be understood in light of very recent developments around race and law enforcement in the summer of 2015, as well. Her unit is both timely and timeless, both geographically specific and inescapably relevant to any community in the US.

Jessica Brantley

Notes

1. See, e.g., Kate Taylor, "English Class in the Common Core Era: 'Tom Sawyer' and Court Opinions," *New YorkTimes*, 19 June 2015.
2. Hayden White, "The Historical Text as Literary Artifact," from *Tropics of Discourse: Essays in Cultural Criticism* (Baltimore and London: Johns Hopkins University Press, 1978), pp. 81-100.
3. Anne Fadiman, *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures* (New York: Farrar, Straus, and Giroux, 1997).

Synopses of the Curriculum Units

2015.01.01

[Wandering Through The Bad Times: Children Making Their Way Through the Great Depression](#), by Joyce Arnosky

This is a four-week interdisciplinary unit for fifth graders, but could be modified for middle school. The work centers on literacy and social studies and aligns with the CCSS Reading Literature and Reading Informational Text Standards. The goal of this unit is to help students strengthen and enhance their literacy skills as they do the work of historians – examining the lives of children during the Depression. Understanding the past requires a multi-faceted, critical approach and so is very much like what we want our students to do in terms of their reading and writing work. Historians can't simply rely on one account. They must consider and evaluate many sources in their search for clues and evidence of the past. In this unit students will do close readings and analysis of primary and secondary sources, literary nonfiction, memoir, and photographs. They will combine these sources of informational text with reading historical novels in book club format, poetry, and songs from the period. Students will also write across a variety of genres and for different purposes: journals, constructed responses, literary analysis, poetry, expository essays, and fiction.

(Developed for Literacy and Social Studies, grade 5; recommended for Literacy and Social Studies, grades 6-8)

2015.01.02

[Helping Students](#), by Luke Holm

In a world wrought by deceptive media, oil-made living, and constant consumerism, students are bombarded by influential information every single day. The unit “Helping Students ‘See Beyond the Pale’” is designed to develop critical thinking skills and awaken students’ minds to the truth of the world around them. Using Paul Fleischman’s *Eyes Wide Open*, as well as various articles, videos, and fictional short stories, students will explore the theme of environmentalism and how the world got to its current state. Throughout the unit, students will explore subtopics such as advertising, lobbyism, world population, consumerism, peak oil, and green energy.

This unit can be used for a wide range of academic grade levels. It is meant to introduce controversial topics to students in a nonbiased and open atmosphere. Furthermore, the unit is designed to promote great autonomy in choosing the various areas of focus. Students will engage in collegial discussions to enhance their understanding of environmental topics and develop educated opinions about the world around them. By the end of this unit, students will be inspired to think more deeply about their world and, in doing so, become active members of their community.

(Developed for Social Justice, grade 7; recommended for Elective, grades 7-12)

2015.01.03

Farming, Food and a Balanced Navajo Lifestyle, by LeTanya James

This unit will assist Kindergarten and First Grade educators in teaching students about the importance of farming, food and a balanced Navajo lifestyle. This unit will be taught in a three part timeline: a) Navajos and Farming b) Fruits, Vegetables and Our Body and c) Navajos, Diabetes and Exercise. The unit will incorporate a variety of fiction and non-fiction literature in the introduction and activities. The nonfiction book, “Farms Feed the World” by Lee Henry Sullivan will serve as a basis and reference for the entire unit. The students will begin by learning about the importance of farming and how food, specifically fruits and vegetables are farmed. After this, they will gain a wealth of information about specific fruits and vegetables and how each of those foods will have an effect on our body. We will be reading Finally, to end the unit the students will realize that in order to stay healthy, they need to eat healthy foods and exercise on a daily basis. In the early years of academics, equally integrating and exposing the power of fiction and non-fiction literature into every unit will enhance the learning of our young scholars.

(Developed for English Language Arts and Science, grade K; recommended for English Language Arts and Science, grade 1)

2015.01.04

Defining Culture through the Lens of Literature and Text in Kindergarten, by Joseph Parrett

This is a kindergarten unit that addresses Common Core State Standards in language arts. It also addresses the area of social studies. The purpose of this unit is to help students define the concept of culture through the use of children’s literature and expository text. Students will be exploring the Chinese and Mexican cultures. A part of this activity is comparing and contrasting the Chinese, Mexican, and even American cultures. The class will read paired texts seeking the “ingredients” that make up the “recipe” of culture. “Ingredients” such as food, clothing, customs, and holidays are included. Students will be using kindergarten reading skills that relate to actively participating, asking and answering questions, and writing. Additionally, the class will be learning to make connections between different communities and the activities that occur in those communities. Throughout the unit students will be sharpening their listening skills, their ability to sort ideas and objects into categories, and their ability to write informatively or tell a story. This process can be modified to other elementary grades.

(Developed for Language Art and Social Studies, grade K; recommended for Language Arts and Social Studies, grade 1)

2015.01.05**Different Cultures in Chicago's Neighborhoods: Chinese and Mexican Communities**, by Nadra Ruff

This unit is designed for 3rd grade, but could be adapted for grades 4th-8th. The school where the unit will be implemented is located in the Englewood Gresham area, one of Chicago Public Schools hardest communities. The unit emphasizes the Common Core standards of literature and informational text and addresses the social studies and language arts content areas. The main focus of the unit is to teach students about immigration, geographical location, and cultural diversity. These concepts are achieved within this unit by teaching the history, traditions, and commonalities and differences between the Chinese and Mexican American cultures in relation to their geographical settlement in Chicago's neighborhoods that surround the students' communities. The unit will use literature and informational text at different reading and comprehension levels, styles of print, and text features. The scope of this unit however, is not just to analyze the Chinese and Mexican cultures but to enhance student's cultural awareness by building their background knowledge with pieces about the two cultures of study. By examining a historical sequence of events that took place for Chinese and Mexican immigrants, this unit will offer students an understanding of how members of a culture meld into communities while trying to maintain cultural identity and honor their ancestors.

(Developed for Language Arts and Social Studies, grade 3; recommended for Language Arts and Social Studies, grades 4-8)

2015.01.06**Dystopian Societies in Adolescent Literature: Can Compliance and Freedom Coexist Peacefully In A Dark, Dystopian World?**, by Teresa Rush

In 1516, Sir Thomas More wrote the first 'Utopia', which began a long and rich tradition of imagining both utopian (or ideal) societies and imperfect dystopian ones. Recently, there has been a spike in the popularity of dystopian literature and movies. This type of literature is characterized by a bleak, dysfunctional future in which anti-utopian events oppress the weaker class of a society. The ruling class uses various controlling agents to obtain absolute power and establish their own personal utopias. These forms of control include corporate control, bureaucratic control, technological control, and philosophical/religious control.

In this ninth grade English unit, students will explore the common and contrasting themes of the following dystopian novels: *The Hunger Games* by Suzanne Collins, *The Maze Runner* by James Dashner, *Divergent* by Veronica Roth, *The Giver* by Lois Lowry, and *Matched* by Ally Condie. In these novels, characters are faced with a lack of power and choice that force them and others who share their beliefs to rise up against their oppressive governments. While reading, students will engage in literature circle

activities, close reading of dystopian and utopian articles, writing, and powerful discussions all centered on the Common Core State Standards. As they engage in reading and writing activities, they will develop a deeper understanding of whether or not compliance and freedom can coexist in a dark, dystopian world.

(Developed for English I, grade 9; recommended for English and English Language Arts, grades 7-10)

2015.01.07

[Jim Crow, Civil Rights, and the Integration of Schools](#), by Valerie Schwarz

Jim Crow, Civil Rights, and the Struggle to Integrate Schools is a literature based curriculum unit that combines history and language arts. The curriculum unit uses Jacqueline Woodson's free verse memoir, *Brown Girl Dreaming* as an anchor text, and provides a framework for making historical connections to the Jim Crow and Civil Rights Eras. The stories of the Little Rock Nine and Davis v. Prince Edward County are told as a way to view the aftermath of the Brown v. Board of Education decision. Throughout the unit, different genres of non-fiction and fiction are brought together to help students make text-to-text, text-to-self, and text-to-world connections.

The unit also includes an interactive hands-on scavenger hunt to teach children about the Jim Crow Era through the use of technology including: iPads and QR codes. A list of related resources, activities, informational texts, and the actual verses with their ties to historical events are included. This unit is sure to engage students from the intermediate grades through high school and can easily be adapted to reach high school English and history classes. It also could be adapted to meet Common Core Standards.

(Developed for Language Arts and Social Studies, grade 4; recommended for English/Language Arts and History, grades 5-9)

2015.01.08

[Biographies and Autobiographies: Portraits of Peace Builders](#), by Julie So

This unit helps K-2 teachers build upon foundational concepts of being peace builders in communities through study of high quality literature and information. Topics include gender bias, multicultural role models, qualities of heroes and peace builders. Influential peace builders mentioned include Dr. Martin Luther King, Jr., Cesar Chavez, Mahatma Gandhi, Florence Nightingale, Malala Yousafzai, and Wangari Maathai. Discovering through our readings the formidable qualities of influential people compels young scholars to identify with these great leaders. With the help of literature and information, students will examine these inner qualities and values developed in influential peace builders and in themselves. I hope to spark their own expressive dreams of building peace in our community as they create their own autobiographies: portraits of peace builders.

Our children need to know that they truly are an important part of the community and, even at their young age, they can make a world of difference. The unit meets Common Core Reading Literature, Reading Information, and Writing standards. Background information of literature genres related to young children, teaching strategies, and activity examples to bring out the best in our young future heroes are provided.

(Developed for English Language Arts and History/Social Science, grade 1; recommended for English Language Arts and History/Social Science, grades K-2)

2015.01.09

Revisiting Race and Riot: Exploring Tulsa’s Conflicts in Fiction, Nonfiction, and Image, by Krista Waldron

This unit comes from a seminar about fiction and nonfiction texts and effective pairing of the two. It addresses Common Core standards and Oklahoma state standards. The first two thirds covers the 1921 race riot in Tulsa, Oklahoma. We’ll look at context, causes, social themes, recovery, and the literary nature of all texts, whether fictional or informational, primary or secondary. The last third connects the riot to more recent events that include race and authority, including those we know the most: Trayvon Martin, Michael Brown, and Freddie Gray, all of whom received international attention because their deaths seemed to be related to race and were not necessary. Included texts and sources are fiction, nonfiction, poetry, and image. The anchor fiction is Rilla Askew’s *Fire in Beulah*. The texts include news journalism—old and new, well-known essays, online collections of images, Harlem Renaissance and new poems. This unit was written for middle and high school classrooms. My students are middle and high school mixed into multi-grade classes. I teach at-risk and adjudicated youth who for whom social justice issues are especially relevant and for whom academics have not been a priority. Some strategies were selected with this in mind.

(Developed for English I, grade 9, English II, grade 10, and English III/IV, grades 11-12; recommended for English/Language Arts and History/Social Studies, grades 8-12)

2015.01.10

Words of Patriotism: The Pledge of Allegiance, by Keisha Wheat

How do we know what makes us patriotic? What are our rights and responsibilities as citizens? The answers to these questions and more can be found in this unit. "Words of Patriotism: The Pledge of Allegiance," is a cross curricular unit addressing learning standards in both Language Arts and Social Studies. Even though this unit was written for first grade students, the content can be modified for kindergarten through second grade. The Pledge of Allegiance encompasses the ideals of our founding fathers: the ideas of liberty, justice, and citizenship. Students will make connections to these concepts through the exploration of each phrase in the pledge. U.S. symbols such as the American

flag, the liberty bell, and the bald eagle are taught throughout the unit to give students access to visual representations. Through the paired use of literary and informational text, students will explore the patriotic roots of America. Each concept is introduced with a fictional text and the concept is further studied through the use of non-fiction. Students will compare and contrast information found in both genres of text. In addition to learning the Pledge of Allegiance and the Preamble to the Constitution of the United States, students will also write a classroom pledge, classroom rules, and their own version of the preamble.

(Developed for Language Arts/Social Studies, grade 1; recommended for Language Arts/Social Studies, grades K-2)

II. Explaining Character in Shakespeare

Introduction

This was the third National Initiative seminar I have had the pleasure of leading on topics related to Shakespeare. Our focus was “character,” and it was in part my hope to show that Shakespeare transforms the role of character as Aristotle had prescribed it, with the continued approval of Renaissance criticism and practice until Shakespeare. For Aristotle, character is subordinate to plot; it exists solely to provide motivations for the events in a plot, and in order not to seem anomalous it must be plausible and consistent within a given role. All teachers need to recognize that this is still the way we are taught to understand dramatic characterization: a “tragic hero,” for example, is a noble person who has a “tragic flaw” (pride, ambition, jealousy, devotion to private rather than public loyalties, etc.) that brings about some reversal of fortune in the plot. Who doesn’t recognize that formula, and who has managed to get through school without hearing it? Well, it works, more or less, for drama from the Greeks right on through to Shakespeare’s great contemporary Ben Jonson.

I hoped to show in our seminar, though, that Shakespeare has a different conception of character. Sure, character provides motivations, but there’s a great deal more in his characters, as there is in our own, that makes them “human”—“round,” as E. M. Forster put it in an influential discussion of the novel, a modern form of literature that would have puzzled Aristotle but not Shakespeare. Characters in Shakespeare may be the puppets of destiny, as they often complain that they are, but they stand before us as beings whose thoughts, like our own, very often wander away from their predicaments. Or, to see this matter in another way, if even their thoughts that seem to wander most freely are still obscurely connected with their predicaments at all times, we need the help of modern thinkers about the determinants of consciousness—Marx, Darwin, Nietzsche, Freud, cognitive scientists, some theologians—to understand why this is so. We can’t just identify a tragic flaw or comic obsession, then tie a ribbon around it, and call it the truth about a character.

Although our discussions ranged over these matters in the seminar, however, our curriculum units reflected the sober fact that teaching is a practical affair, and there’s only so much you can do. To begin then with the units of two teachers of second and fourth graders, respectively: Joyce Jacobson uses Shakespearean insults, chosen from passages in three plays, to illustrate her school’s newly mandated guidelines to discourage bullying. She leaves open the question whether certain characters (say Tybalt in *Romeo and Juliet*) just are bullies; that isn’t her point, and can’t be. Her point is to show her students what bullying *is*. Irene Jones teaches fourth grade children of the Diné Nation who have no “first” language (they have had no opportunity to master either Navajo or English), and a large part of her mission is therefore to improve their verbal skills. She has an interest too, though, in the relation of character to plot, and she gets her

students to see the motivational nature of this relation by comparing a traditional oral narrative with which the children are familiar to moments of choice in graphic novels of *Romeo and Juliet* and *The Taming of the Shrew*.

The aim of many teachers is to get their students to see themselves, or aspects of themselves, in Shakespeare's characters. Christina Cancelli in her military academy takes up the complexities of stereotyping—a crucial issue for today's students that goes right to the heart of question, what is character?—in *The Merchant of Venice*, leading to in-depth discussion not just of Shylock but of Portia and Antonio, and beyond that to what might be called religious as well as cultural ideology: Shakespeare's dispassionate and even-handed study of the clash between Old and New Testament values and their mutual misunderstandings. Chenise Gregory wants all of her African American students to discover the Hamlet in themselves. For Chenise, whose enthusiasm for *Hamlet* as a guide through personal perplexities drives her teaching, the goal is to make students see the relevance of Shakespeare by recognizing in themselves his characters' motives, family circumstances, and social outlook. Sarah Weidmann, having noted a high incidence of family tragedy among her students, teaches *Hamlet* almost therapeutically as a story of “family and loss.” Her most continuous study of character in this regard concerns Gertrude, whose responses to family and loss Sarah considers for the most part admirable, defending Gertrude against performances suggesting her degradation. And Michelle Hilbeck, teaching sixth grade, wants students to see themselves in choices made by characters in *Romeo and Juliet* and *Macbeth*. It is her challenge to make Shakespeare palatable to the young, and to this end she works chiefly—like Irene Jones—with graphic novels of these plots that perforce make character primarily motivational, posing for students the question: what is it in our own characters that dictates our choices?

For many teachers the relevance of Shakespeare is ethical. And why not? *Ethe* is Greek for “character.” Quinn Jacobs feels that her high school students struggle to distinguish—in themselves and others—between “phony” and “authentic” presentations of self, and to that end she has written a unit on masks and pretenses in *The Taming of the Shrew*, primarily but not exclusively focused on the enigmatic final speech of the apparently “tamed” Kate. Jennifer Vermillion's ethical focus is the seductive yet also sometimes elevating power of persuasive rhetoric, and she helps students analyze dialogues and speeches in *Julius Caesar* by using the ancient rhetorical divisions *logos*, *ethos*, *pathos*. The center of her attention is the contrast between the funeral speeches of Brutus and Marc Antony.

The focus of Teresa Madden Harrold is at once ethical, as she is interested in what constitutes a villain, and intellectual, as she makes students consider what constitutes a historical fact: what is “literature” and what, if anything, is “information”? The first part of her unit studies the character of Shakespeare's Richard III, while the second part considers the effort to reconstruct the historical Richard in Josephine Tey's novel, *The Daughters of Time*, in disagreement with the Tudor-sponsored biography by St. Thomas

More on which Shakespeare's Richard is largely based. Studying *Julius Caesar*, Jen Giarrusso too pursues an objective that is at once ethical and intellectual. She begins with the dispute late in the play between Brutus and Cassius about friendship: is it blind loyalty or is it subject to a dispassionate weighing of qualities? She goes to show how this question, and the ethical choices it gives rise to (*et tu, Brute?*), permeate the entire fabric of the play, offering students a coherent close reading with an ethical basis.

The remaining two units focus on themes within which character is central. Comparing and contrasting the theme of love in *A Midsummer Night's Dream* and *Romeo and Juliet*, Justin Brady ranges through these companion plays not only to reflect on the elusive line of division between love and lust but also to contrast love as a genuine feeling with love as a literary affectation, a pretext for sonneteering. One can detect all three of these feelings struggling with each other in the character of Romeo, for example. Tara Ann Carter's study of four characters in *Julius Caesar* (developing the *theme* of character) in a way illustrates the dispassionate analysis of qualities discussed by Jen Giarrusso. That there is more than one way to view each character displaces the duty of choice from the characters themselves onto the reader's or spectator's reactions to them.

I am certain that each of these units will not only stand up to the test of the classroom but also inspire intellectual conversion experiences in many students, and that is surely what teaching is for.

Paul H. Fry

Synopses of the Curriculum Units

2015.02.01

[Sticks and Stones: The Bully and the Bullies in Shakespeare's Romeo and Juliet, The Merchant of Venice, and The Tempest, by Joyce Jacobson](#)

This unit designed for a second grade classroom will use snippets from *Romeo and Juliet*, *The Merchant of Venice*, and *The Tempest* as a vehicle for teaching about Anti Bullying. Included is a brief overview of the health implications of bullying and the attitudes and research on bullying. Examples of types of bullying behaviors associated with bullying and research on the causes therein will be provided. This will be followed by examples of the Olweus Bullying Prevention Program and suggestions on how to implement this in your school setting. Finally key excerpts of dialogue between characters in scenes from the three plays are given with a focus on word choice and vocabulary of Shakespeare's time. Discussion topics and questions that highlight the roles played by characters that act as bullies, bullied, and or bystanders will accompany each segment. Suggested activities such as role-play, masks, and script writing that are aligned with the Common Core State Standards will culminate the unit.

(Developed for ELA/Reading, Writing, Listening, and Speaking, grade 2; recommended for ELA/Reading, Writing, Listening, and Speaking, grades 2-5)

2015.02.02

[Tragedies and Plots Shaped by Characters of Shakespeare and Navajo Oral Myths, by Irene Jones](#)

In my unit for fourth grade English language Learners I will compare two characters in a Navajo oral myth of the kind our students hear at home and at school, *Changing Bear Maiden*, with two characters from graphic novels based on Shakespeare plays. My students sometimes lack the reading abilities for their grade level; however, I still need to teach them using fourth grade standards. Fourth grade reading standards and standardized assessment emphasize reading comprehension. Determining character traits and motivation, together with plot development, are the main standards that students need to learn. The students will compare the actions of Tingly Woman in *Changing Bear Maiden* with Kate from *Taming of the Shrew*, and Coyote will be compared with Iago from *Othello*. The characters in the stories of oral myths create the course of the plots of the stories. When oral myths are retold, they are told in a way that leaves little mystery in solving character traits, or character motivation. The only mystery is the outcome, usually ending with a moral to be learned. This unit will allow students to identify character traits and motivation, and to learn how motivation changes the course of the plot.

(Developed for Reading and Writing, grade 4; recommended for Reading, and Writing, grade 5)

2015.02.03

Fate or Action: Character Agency & What the 21st Century Student Gains from The Merchant of Venice, by Christina Cancelli

This unit focuses on scaffolding instruction to eliminate any intimidation by Shakespeare and focuses on creating real world connection and relevance to the lives of the modern eleventh or twelfth grader. Concentration is placed on creating student centered, active learning that will encourage each child to be investigative and think critically about the changing world he or she lives in through the lens of Shakespeare's *The Merchant of Venice*. The unit is organized in four major sections structured chronologically. Stage one addresses censorship and controversial literature, with attention paid to the vocabulary and rationale needed when teaching a controversial text. Stage two systematically familiarizes students with Shakespearean language, with tiered activities to build their confidence. Stage three features the actual reading of *The Merchant of Venice*, with student, teacher, and group reading activities. In stage four, students will be investigating, analyzing, and connecting the text to today's world. In this section, students will examine today's justice system as it relates to the defense of disenfranchised groups or individuals. Also, students will do a cross-curricular study involving interest rates with credit cards and student loans, so they can begin to understand the nuisances of predatory lending. Additionally, they will look at the destructive power of stereotypes and the platform of social media in relation to cyber bullying.

(Developed for English 12/British Studies, grade 12; recommended for Economics, Debate, and Reading Enrichment, grades 9-12)

2015.02.04

To Thine Own self Be True: the Uncovering the Hamlet in You, by Chenise Gregory

This unit should be prepared for Eleventh and Twelfth graders. It focuses on William Shakespeare's *Hamlet* and thus can be used to discuss Character and Plot within a play. In this particular Unit, students will read the play and dissect various characters in hopes of finding traits, both negative and positive, that are found also, within the personal lives of students. The goal of this unit is to show how Shakespeare is still relevant to this time, and to engage students in the process by which Shakespeare uses these characters to develop the plot of the play. Students will use social media as a way of following along, enhancing understanding, and establishing a realistic connection between themselves and the characters. Facebook will be the primary site used as a forum to discuss events that have taken place in the play. Students will also create a movie trailer that advertises key concepts or events shown in the previous Act. A close reading of the text is very necessary for overall understanding and effective questioning in order to continue that understanding. Assessments are given at the will of the teacher utilizing this unit. This unit follows the Common Core State Standards.

(Developed for English IV and AP English Literature, grade 12; recommended for English III and IV, grades 11-12)

2015.02.05

Character in Hamlet: Family & Loss, by Sarah Weidmann

This unit for upper middle school students is titled Character in *Hamlet*: Family & Loss. The focus is how four characters (Hamlet, Gertrude, the Ghost of Old Hamlet, and Horatio) deal with family and loss. The content follows an interpretation of these four characters' emotional journeys throughout the play. Evidence for changes in their emotions is shown with lines of text characters speak themselves as well as what other characters say about them. Many school communities have dealt with a lot of loss from violence and family disruption. Our middle school students have not experienced the reading and interpretation of Shakespearean text, a perfect example of complex literature. Combining social-emotional learning with text interpretation will allow text access through personal connection. Students are asked to consider how a person might perform emotions rather than truly feel them. They are also asked to consider what family is, and then go farther by examining how family ties (blood-related or chosen) might intensify our experiences of loss. Aided by a plot map, students will dissect the first lines of the play, short phrases, and sections of scenes that feature our four characters. After reading the text students will write scenes from current times based on scenes from *Hamlet* that show difficult choices being made.

(Developed for Reading, grade 7; recommended for Reading and Social Studies, grades 6-8, Drama, grades 6-9, and Literature, grades 9-10)

2015.02.06

Examining Shakespeare's Characters, Character's Choices and the Consequences to Make Them Relevant to Middle School, by Michelle Hilbeck

So why is it that William Shakespeare—a long dead author whose plays were written for playhouses very different from today—should be celebrated as an author of enduring significance? He was a master of telling a gripping story and he has this uncanny ability to render personality that makes his personages seem so *real*. With this unit, I want to provide my sixth grade students an early exposure to Shakespeare and determine how his characters are still relevant and similar to the students themselves when they need to make choices. We will study the personalities and choices the characters make in Shakespeare's two plays, *Romeo and Juliet* and *Macbeth*, while first reading the graphic novel interpretations of the plays. This will act as a springboard for my students to examine how the plot unfolds based on the decisions the characters make or how they respond. Next, we will compare the graphic interpretations with segments of the original verse to dig deeper into the thoughts and emotions of the characters.

(Developed for English/Language Arts, grade 6; recommended for English/Language Arts, grades 6-9)

2015.02.07

Removing the Mask: An Untamed Look at Shakespeare's *The Taming of the Shrew*, by Quinn Jacobs

In this unit, students will become familiar with the William Shakespeare's play *The Taming of the Shrew*. This will be modeled by using a close read of the text and an analysis of the film. In small groups, analyze Kate's final speech and determine whether they believe she has or has not been tamed. Close reading is an important skills students need to master. Then, they will synthesize the information from their small group discussions and individually write a short essay on her taming, or lack of. This unit, although geared toward the idea of always being yourself and could easily be adapted to fit the needs of many other groups/communities.

(Recommended for British Literature, Grade 12)

2015.02.08

Convincing the Masses: Rhetoric in *Julius Caesar*, by Jennifer Vermillion

Using *Julius Caesar* as a foundational text, high school students will be challenged to understand and employ the art of rhetoric, or persuasion. An awareness of the prevalence of rhetoric in advertising, politics and even daily life will be developed in hopes of developing critical thinking skills and an ability to self-advocate. Close reading of text and learning to analyze passages for rhetorical strategies will engender readers who approach text with a purpose, and recognize the ways in which authors develop their point of view. Critical thinking, strategic reading, and analytic writing skills will be honed prior to approaching *Julius Caesar*, at which time students will find themselves engaged in complex questions relating to the uses of rhetoric. Students will learn to recognize and appreciate the complexity of the language instead of feeling intimidated by it. The play lends itself to multiple interpretations of character owing to ambiguous language and therefore provides students with ample opportunities to develop their own opinions based upon textual evidence. Through close reading of specific soliloquies, monologues and passages, students will understand that rhetoric works to both embellish the text and develop characterization.

(Developed for English II, grade 2; recommended for English I-IV, grades 9-12)

2015.02.09

Shaping a Multi-Dimensional Villain: Richard III, by Teresa Harrold

In this unit, 10th grade students, in an accelerated English class, will explore Shakespeare’s craft in creating the title villain in *Richard III*, afterwards will learn something about the historical Richard III from a modern literary source. Students will be tasked first with answering, Who was the *literary* Richard III? Through classroom read alouds, scene analysis, and theater games, students will collect evidence to respond to this guiding question. In the individual lessons, we will carefully examine Richard’s soliloquies, his manipulative performances before other characters, and various epideictic speeches. After studying the play, students will compose an original soliloquy in which Richard justifies his actions as given in the play. The class will then read Josephine Tey’s novel *The Daughter of Time*, which presents historical evidence to complicate the villain created by Shakespeare. Students will document details from the novel that contradict the presentation of Richard in the play in order to answer, Who was the *historical* Richard? Students will craft their response in the form of a eulogy for the historic king. The main objective is for students to analyze fiction and nonfiction depictions of Richard III and come to an understanding of how historic figures are shaped in later times.

(Developed for English II CAS, grade 10; recommended for English/Literature, grades 9-12)

2015.02.10

How Our Moral Views Shape Our Judgment of Characters in Julius Caesar, by Jennifer Mazzocco

In *Julius Caesar*, there are no clear cut “bad” and “good” characters. The four main characters – Caesar, Brutus, Cassius and Antony – participate in a series of decisions that make it difficult to judge the character definitively as a whole. In fact, there may be no accurate judgment possible at all. For one thing, when we read a piece of literature, we bring with us a wealth of beliefs and experience that color our judgments and, ultimately, may alter the way we see text evidence – what evidence we assign value and what evidence we may even choose to ignore. At times, we may choose evidence selectively to support an interpretation that justifies our already existing ethical views.

This unit will ask ninth and tenth grade students to address the viewpoints they bring to the table and actively assess how those beliefs influence their interpretation of text evidence and how they can actively look for the evidence they may have overlooked in defense of their own belief. The unit promotes analysis by pursuing the question “when does loyalty expire?” and uses that frame to examine how the four main characters can be judged in different ways.

(Developed for English 1 PSP, grade 10; recommended for English, grades 9-12)

2015.02.11

The Question of Desire: A Comparison of Love in Shakespeare, by Justin Brady

Shakespeare presents different views of desire and love in *A Midsummer Night's Dream* and *Romeo and Juliet*, respectively. These plays complement one another while also existing at opposite ends of a spectrum for readers to analyze. Is love merely the lucky result of good timing or are we fated to fall for a predetermined person? One play is a comedy and the other is a tragedy, but how did the decisions made by the characters determine these genres? What was Shakespeare trying to tell his audience about love? Through examination of these questions, the class will consider character motivation through action and words in both plays, acting out scenes such as Romeo and Juliet's first meeting as well as the play put on by uneducated actors in *A Midsummer Night's Dream*. Students will also work together to synthesize Shakespeare's text into a modern format while making a soundtrack suited to different characters, using both music originally inspired by these plays and modern music. Finally, students will participate in a Socratic seminar where students will work together to consider the decisions made by individuals within both plays, defending a point-of-view as they take on the persona of one of these characters.

(Developed for English Language Arts, grade 7; recommended for English Language Arts and Drama, grades 7-12)

2015.02.12

Take a Stab at It: Exploring Character in Julius Caesar, by Tara Ann Carter

This unit for an advanced ninth grade classroom seeks to explicate strategies and activities that represent a well-rounded deep investigation of character in William Shakespeare's tragedy, *Julius Caesar*.

There is universality in William Shakespeare's works that makes them relevant for all people in our increasingly globalized society. In our current moment, the characters and concerns of the four primary characters of *Julius Caesar* are as relevant and applicable to the ethical, political and psychological struggles of today as they were during the author's era.

The focus of this unit is how to enable students to understand the creativity and economy with which the Bard approached the English language, and the frank and clear eye with which he was able to evaluate some of the most base and inherent characteristics of the human condition. Students will come to understand Shakespeare as a master craftsman of humanism and of the psychological development of characters. This unit could be easily adapted for learners at all levels, in middle or high school.

(Developed for English, grade 9; recommended for English, grades 7-12)

III. History in Our Everyday Lives

Introduction

We are surrounded by the history though we rarely take notice. In moments of national crisis, however, we often become painfully aware of our unresolved past. The volatile 2015 debates over the symbolism of the Confederate flag—as an enduring symbol of slavery and white supremacy or simply Southern heritage—quickly remind us of the importance of confronting the nation’s past in our everyday landscapes.

This seminar aimed to explore the field of public history as a set of broader engagements between historians and the public about the documentation and interpretation of the past. By exploring a range of public history projects—podcasts, public art, exhibitions, websites, documentary films, etc., seminar participants discussed the ways in which teachers and students in k-12 grades might use their everyday surroundings and readily available materials to reinvigorate the study of local, state or national histories in the classroom.

Critical to the understanding of the power of public history is the potential for the public to intervene in the research and narration of its own history and not cede authority solely to academic historians. In the seminar we considered the importance of searching for alternative sources of information beyond the textbook and how the act of research and discovery empowers students to be historical researchers, thinkers, and writers. Particularly for teachers working in low-income and predominantly non-white or recent immigrant neighborhoods the methods of public history allow students to find ways to connect their own experiences to those they read in textbooks. Opportunities to touch the past in the form of visits to archival collections housed in libraries or historical societies or on walking tours of historic sites also allow students to come face to face with the past. These engagements also allow students to question the practice of historic preservation and public memory. Whose stories are saved and why? Why do others disappear from the historical record and our surrounding landscape? How might we find other ways to restore forgotten histories and voices to the public record?

The seminar also considered the different types of public history projects and how they create literary, aural, visual, and corporeal experiences that foster different forms of engagement with the past. While some public history projects such as historic exhibitions and documentary films allow for greater historical information to be presented to an audience, we noted the ways in which the historical fiction film or public art might create a more powerful emotional connection to the past. And we debated the merits of these public history projects not just for their historic accuracy—that is the ability to render every fact and detail accurately as we might expect from a work of academic history—but also for their artistic or experiential worth.

The rich discussions over the value of public history and the possibilities and limitations of different types of projects supported the growth and development of the ten curriculum units presented here. Collectively, they range from explorations of the history of local parks situated in diverse urban communities, studies of school desegregation, work and labor, public art and commemoration, and the history of aviation. The units also discuss the ways that archival research, walking tours, museum visits, public art, and documentary filmmaking may offer alternative ways to engage with and speak back to academic history. While each of the units focus heavily on the local community history of the seminar participants' home cities, they offer models for any teacher hoping to enrich their teaching of local and national history through the tools of public history. The units demonstrate the potential for teachers to explore their own communities and empower their students to contribute to the writing of their own history.

Mary Lui

Synopses of the Curriculum Units

2015.03.01

[Richmond's Divisive Monuments: A Look into One City's Debate over Public Art, Memory, and History](#), by Jeanne Callahan

“This is an issue that touches the soul of a city.”

One hundred and fifty years later, the South's connection to the Civil War still divides the nation. Since the massacre at Episcopal AME which claimed the lives of nine black parishioners, Americans once again heatedly debate the meaning imbued in the South's myriad Confederate monuments and icons. In a publication titled “Art, Scale, and the Memory of Tragedy: A Consideration of Public Art in Pleasant Hill, Missouri,” historiographer Chris Post writes that “public art presents the views of a commissioner or artist to a wide audience, presumably an entire community. By doing so, art becomes a forum for discourse over essential cultural and political activities, their history, and their representation.” During this unit, students will delve into this discourse through exploring the divisive debates surrounding Richmond's most historic boulevard which honors five Confederate leaders and, most recently, the renowned, black athlete and humanitarian, Arthur Ashe. Through analyzing this real-world issue over Richmond's cultural narrative, students will develop an understanding of the many nuances surrounding one city's quest to answer a question that is anything but simple: *Whose story do we tell?*

(Developed for English 11, grades IB 10 and Standard Level 11; recommended for Language Arts, grades 8-12, and Civics and History, grades 9-12)

2015.03.02

[Silicon Valley's Otro Lado, Youth Voices Speak About Their Community in Film](#), by William Cavada

Silicon Valley has become a popular subject, not only in cinema, but on television dramas. Indeed, a great many stories at the moment concern the power and glory and development of the Valley. When we look at today's society we can see how film and television have effectively become the authoritative sources for many of people's knowledge of history. The objective of the unit is to illustrate to students that there is power in moving images, and they conjure up powerful feelings and communicate ideas in ways that transcend the written word. As product of understanding their own public history, students create self-documentaries that draw upon the rich histories of their neighborhoods and speak back to the broader historical narratives within Silicon Valley using the language, process and technique of filmmaking.

(Developed for Multimedia Arts, grades 9-12; recommended for Media Arts, U. S. History, and English, grades 9-12)

2015.03.03

My City Need' Something, by Sydney Coffin

Celebrating the current renovations of a city park in North Philadelphia, students in this unit will examine the changes to the built environment through a public history lens, looking closely at decisions being made over time to bring the park (and its people) into the present day. Applying a Project Based Learning methodology to the assignments, students will hone in on an aspect of the park that intrigues them: its horticulture, recreational facilities, safety, art and architecture, poetic aspects, maintenance, or its social politics, all the while meeting with community organizers and city officials to ask how can we participate in making this a better park. What does *your* city need?

(Developed for English III American Literature Class, grade 11; recommended for Social Studies, English, and Art, grades 10-12)

2015.03.04

French History in Your City: San Jose, California - the Pellier Brothers, by Glenn Davis

“French History in Your City” is a unit on local, public history, which explores how the French arrived, specifically, in San Jose and what they did to contribute to society. It includes struggles and victories for the new immigrants. With a bit of research on immigrants in your area, it can easily be applied to other neighborhoods, cities, counties, etc., in which the French, or other ethnic groups, settled.

The unit is student-centered, focusing on their research using the internet, learning first about the migration of the French language from a small area in Western Europe, to all corners of the globe, including North America, California, and finally, San Jose. Their research includes visiting local history libraries, where they can find primary source materials, museums, and places of interest where the immigrant is memorialized, such as a small park and a cemetery.

The unit will empower students to be historical researchers, thinkers and writers. From a few words on a tombstone, students will dig deep in their research, taking them back to France, where they will make discoveries about the origins of the immigrant. It will open up the area of genealogy, as they research the family.

(Developed for French III, grades 11-12, and AP French Language and Culture, grade 10; recommended for French III-AP/World Languages, Spanish III-AP/World Language, Vietnamese II-III/World Languages, and German II-III/World Language, grades 10-12)

2015.03.05

[A Public History of Public Housing: Richmond, Virginia](#), by Libby Germer

In the Library of Virginia’s archives, mid-20th century black and white photographs chronicle the construction of Richmond’s first housing projects. Looking at the photos requires the viewer to step back in time, in many ways. One picture features a horse, a ramshackle outhouse, and pedestrians next to a construction zone. A large painted sign says, “Gilpin Court Slum-Clearance Project” then advertises: “Model Negro Apartment.”

This curriculum unit reflects on the history of US housing policy, then focuses on public housing in Richmond, Virginia, and culminates with a student-led oral history project in Hillside Court. While many of my students call Hillside “home,” they are likely not aware that when the apartments were completed in 1952, they housed an all-white tenancy of working class families.

Today, there is no racial divide in Richmond’s public housing because nearly every resident for decades has been black. What socio-economic and political forces allowed for segregated public housing in the 1950s and the racial homogeneity of today’s housing projects? Why do future plans feature subsidized, mixed-income townhouses? In Richmond, as in many other American cities, the bitter fruits of de facto segregation come from historical housing policies and practices deeply rooted in injustice.

(Developed for Virginia and U. S. Government, grade 12; recommended for African American Studies and Urban History, grades 9-12)

2015.03.06

[Looking at Desegregation through Local Narratives: A Case Study at Tulsa Central High School](#), by Patricia Hodge

I teach 11th grade US History in urban Tulsa. Last year as I showed my students the video clip *Eyes on the Prize: Little Rock Nine*, my students asked me about our own school’s history; they wanted to compare Little Rock’s Central and our Central High. It was then that I decided to look at desegregation and indeed the whole Civil Rights Movement as it happened in our school. In 1917, Central was built. The four story building showed the wealth and privilege of the oil boom years. By 1938, Central was the second largest high school in the US, with 5000 students. Now, Central is one of the smallest high schools in Tulsa with only 500 students. Central was 100% white, now it is 85% black. It was once nationally renowned; now it fights to stay off the “failing schools” list. What happened to reverse the Central’s fortune? How did desegregation, federal mandates, Supreme Court cases and the Civil Rights Movement affect the school, individuals, communities, and the whole history of Tulsa?

(Developed for U. S. History, grade 11, AP U. S. History, grades 11-12, and African American History, grade 12; recommended for U. S. History, AP U. S. History, and African American History, grades 10-12 and Oklahoma History, grades 9-12)

2015.03.07

[Telling Stories: Place, Space, and Memory in Chicago's Parks](#), by Elizabeth Miller

This is a unit that examines the history of public parks in urban areas using Portage Park in Chicago as the primary example. By making use of historical documents and getting to know their neighborhood park facilities in new ways, students will be able to contribute to the historical record of their communities. The end product of the unit is a podcast-- a form of visceral aural storytelling-- and easy for students to produce in this technological era. Teachers will achieve this goal by engaging students in close reading, visual thinking, and seminar-style discussions.

(Developed for English/Art Interdisciplinary Course, grade 9; recommended for English, Social Studies, and Art, grades 5-12)

2015.03.08

[Ripple Effect: How Major Events Effect Everyone](#), by Raymond Ott

This teaching unit examines specific historical moments in Aviation History that were chosen for their potential to relate to your own teaching community and understanding of aviation. It is designed for a High School class but certainly can be taught in a middle school environment. Technological advancements are a core part of the lesson however the intent is to weave how big historical events can have an impact on society and communities. Although aviation history is the medium here, hopefully the chance to explore, examine and learn about the community your specific classroom resides in will prevail. The lesson was designed at POLYTECH High School which resides in the middle of Delaware just outside Dover Air Force Base. Therefore, many of the events chosen were selected for their potential to relate to students of Delaware. However, much of the classroom activities are more global in nature. For example, the contested history of the Enola Gay is explored and the ripple effects of 9/11 are examined. The unit also reveals how today's awesome power of aviation must be respected and acknowledged. Just as aviation has quickly changed warfare, it has had similar effects on society and community.

(Developed for History/Aviation, grade 12; recommended for History, grades 9-12)

2015.03.09

[The History and Analysis of Public Art: Using Delaware’s Desegregation History as a Ground to Learn, Interpret, and Create](#), by Elizabeth Terlecki

Northern Delaware played a significant role in desegregation, a little known fact that is not highlighted by Wilmington’s vast amount of public art—none of which is reflective of the civil rights movement. However, not only does the absence of public art dedicated to the civil rights movement create an opportunity for speculation and conversation, but it also provides some context for high school students in the Christina School District who are still being bused out of the city of Wilmington and into the suburbs to attend high school as a direct result of desegregation. Through the exploration of various examples of public art, including monuments, memorials, murals, and interactive installations, students will not only develop a proposal for a much needed civil rights-themed monument within their own city, but they will also collaboratively construct a piece of unique public art to be displayed within their own school—one that represents their unique blend of both city and suburbs. Students will investigate and analyze both local and national public art, gaining an appreciation for the statues and monuments that they pass by on a daily basis and learning how they fit into the greater context of public art.

(Developed for 3D Design II/Visual Art, grades 10-12; recommended for Visual Art, grades 1-12)

2015.03.10

[Pittsburgh: Contending with its Steel Past](#), by Tracy Watkins

This unit focuses on the development of the industrial United States (1870-1900) and students will analyze how continuity and change has influenced history. Throughout this unit, the rise of the steel industry in Pittsburgh is studied, as well as the make-up of the workforce and the role the workers played in this history. The unit also focuses on the labor movement by examining unions in the steel mills and the Homestead Steel Strike of 1892. Following is an analysis of the demise of the steel industry and the impact of deindustrialization.

Though Pittsburgh was once considered the steel capital of the world, it is certainly no longer a major steel producer. However, the city still has a strong hold on its steel past. Within this unit, the approach of using public history projects to learn about public memory and urban and labor history is used. The projects presented consist of a book, tours, school programs, and the public use of a historical site.

The unit will conclude with students creating a project to display to the public. The activities throughout the unit will help students develop historical thinking skills through synthesizing and evaluating historical sources and interpretations of events. Furthermore, students will cite specific textual evidence to support their analysis, determine central

ideas from sources, evaluate various explanations for actions and events, and integrate information from diverse sources. Lastly, students will write arguments focused on discipline-specific content as well as informative and explanatory texts while drawing evidence from informational texts to support their claim.

(Developed for U. S. History, grade 11; recommended for U. S. History, grade 11)

IV. Using Film in the Classroom/How to Read a Film

Introduction

We were all in agreement that, more than ever before, it is essential to teach our students how to analyze images. The title of our seminar suggests the double focus of its concern. It began with a number of sessions in which we discussed formal aspects of the film medium—color and the composition of the frame, sound and music, lighting, and editing, among others—using carefully chosen films viewed outside the seminar and analyzed with the help of clips. Film tells stories by means of images, camera work, and editing procedures; color, sound, and music are also central to narration. The formal procedures of the film medium convey information, but they also produce emotion in the spectator. A film sequence may be long or short, for example, thus creating suspense, anxiety—or boredom. It may be shot with a mobile camera or a stationary one, from above or below, prompting us to ask whose eye is looking. Is it a character that looks; is it a narrator? A garish color scheme may set the tone for violence, or it may simply be theatrical or suggest gaiety. Music can be part of the story—as, for example, when a character sings or plays the piano—or it can be superimposed on the images, as in the scary music that accompanies a horror film. All of these devices shape the way we read films. In the seminar, we analyzed films from these formal points of view in order to answer the following questions: How is a story told? How does it color our emotions? What is its aim in doing so?

Our goal was also to analyze a wide range of films. To this end, we included a Disney film and a well-known documentary, *The Thin Blue Line*, among other canonical works. The strategy of “close looking” was central to our study of these films; our guiding principle was to watch our chosen films as many times as possible. Three of the films we discussed were adaptations of literary texts: *The Great Gatsby*, *To Kill a Mockingbird*, and Zeffirelli’s *Romeo and Juliet*. In the case of these films, too, we examined film form closely. With respect to film adaptations, we began by asking whether they tell the same story as the literary text. If the film tells a different story, we asked how and why it might do so. Again the strategy of “close looking” and close analysis was central to our discussions. The range of film genres we included made it possible for teachers of elementary school students to engage as naturally with the materials as the teachers of older students did. The range of topics addressed in the thought-provoking curriculum units that follow makes this evident.

Meg Dewese’s curriculum unit centers on the subject of suspense in a Poe short story, its film adaptation, as well as in Hitchcock’s *Strangers On a Train*—a perfect topic for the integrated American Studies course that she teaches to eighth graders. Her course focuses on character point of view and mood with respect to the Poe tale, and editing, lighting, and the camera with respect to Hitchcock, all with the goal of asking how our emotions are engaged by these texts. Each student creates Poe “foldables” to expand their

knowledge of Poe and his time and place, a film storyboard to help them understand how film narratives work, and participates in the making of a class film. Shannon **Foster-Williams**, who teaches art to third graders, has developed a unit designed to increase her students ability to “see” and understand images. The Disney film *Mulan* is used to fulfill both the art requirement and the mandate that students learn about ancient cultures, specifically Chinese culture. Her imaginative teaching techniques include looking at examples of Chinese art, acting out the narrative of the Mulan legend, and designing a storyboard of three panels to illustrate the film.

Miles **Greene**’s curriculum unit is designed for 12th grade English students who are visual learners. It uses *The Great Gatsby*—both novel and its film adaptation—to teach reading and analytical skills in both media, as well as to teach the history and culture of the Jazz Age. Literary and film character will be analyzed using the “psychoanalytical critical lens” approach, thus introducing another area of concern into this rich offering. Molly **Myers**’ curriculum unit, likewise for the upper grades, examines *To Kill a Mockingbird* in both its novelistic and filmic form in order to lay bare the gender relations in these texts and to discuss their cultural formation, using the concept of intersectionality as a method of approach. Here, too, text and image relations are a concern and lead to fascinating observations about how ideology is produced in both novel and film. Eric **Maroney**’s course, also for high school students, uses three films about surveillance to discuss changes in the technology of surveillance and the equally changing ideological and political implications this practice produces. This timely subject is used as a springboard for speaking and writing practice, as well as for the analysis of images. Barbara **Prillaman**’s curriculum unit makes use of fiction films about depression and schizophrenia to give psychology students a means of speaking about these disorders that is more immediate than the clinical essays they will read to accompany the films. The tools for analysis that the clinical essays provide are used in discussing the films, which will also be analyzed as visual texts. Kathleen **Radebaugh**’s middle school students will have the privilege of discussing immigration and citizenship through the lens of *Hester Street* and *West Side Story*, rather different films that will also provoke a discussion of film genre. Her curriculum unit describes a course that will also rely upon present-day campaign speeches to supplement film analysis and connect the subject of immigration to contemporary debates.

Sobeyda **Rivera** has devised a course for second-grade students of Spanish that uses the Disney film *Mulan* as a vehicle for comparing family structures in several cultures—in the students’ own, in Spanish culture, and in the Chinese culture that the film evokes. The aim is to teach Spanish while also teaching the concept of diversity to students with little knowledge of the world outside their neighborhood. Jolene **Smith**’s curriculum unit also has cultural aims: to use two children’s books and their film adaptations to discuss misrepresentations of Native American Indian culture. She will also instruct them about how film techniques color our understanding of the story a film tells. Finally, Arcadia **Teel**’s unit, designed for high school students learning German through the Teaching

Proficiency through Reading and Storytelling (TPRS) method, uses the film *Goodbye Lenin!* as a means of teaching the history and culture of the former East Germany. Her innovative method involves watching the film first without sound in order to generate class discussion. This approach also allows for the close analysis of the film's formal components, which underscore its ideological message. In all of these units, the study of film form is used to underscore film's cultural concerns.

Brigitte Peucker

Synopses of the Curriculum Units

2015.04.01

[Look Behind You! Mastering the Art of Suspense with Poe and Hitchcock](#), by Margaret Deweese

“Look Behind You! Mastering the Art of suspense with Poe and Hitchcock” is a curriculum unit designed for teachers of students in grade eight and above who are searching for a variety of engaging instructional strategies through which their students will learn about the formal elements of literature and film. This unit will allow students to explore the works of two masters of suspense, early American author Edgar Allan Poe and twentieth century British filmmaker Alfred Hitchcock, in order to identify and apply the elements of literature such as suspense, mood, tone, imagery, point of view and symbol. They will also be introduced to the formal elements of film, such as cinematography, sound, editing, and several other elements and become adept at understanding how suspense is created in literature and in film. Through the use of high interest suspense narratives, a short story and a full length film, students will have many opportunities for deep and relevant analysis, including several writing components, storyboarding, and the use of technology to create their own works of art. Ultimately, students will come away with a deeper understanding of suspense narratives, the elements and techniques used to create them, as well as enough mastery to be able to apply their learning throughout other units of study now and in the future.

(Developed for English Language Arts, grade 8; recommended for English Language Arts, grade 7-12)

2015.04.02

[The Visual Art of Writing](#), by Shannon Foster-Williams

Exposing students to ancient Chinese culture through film, students will use creative processes for analyzing film and writing. This unit is intended for elementary students who are emerging writers and engaging in creative writing. It is intended to guide students through the mental process of summarizing and comprehending content. This unit bridges text and film to enhance understanding of narrative content, using animated film to engage students in stories that are appealing and appropriate for young learners. Students will compare the written legend of *Ballad of Mulan* to the animated Disney film *Mulan*, which highlights Ancient China. Activities included in this unit aid students in building pictures that assist with writing. These visual cues will drive a process that leads to detailed and descriptive writing, through a cycle of interpreting stories, class critiques, visual summaries, art compositions, and written narratives. The focus is not only on the artistry, but on a creative way to analyze film and text for the purposes of communicating a story that is clear, concise, and accurate. Challenging students to create a written

narrative that mirrors what is seen in their illustrated art work, this unit connects literature, film, history, and art.

(Developed for Visual Art/Art History and Culture, grades 3-4; recommended for Social Studies/Ancient China, grade 3, Language Arts/Writing, grades 4-5)

2015.04.03

Film, Freud and Fitzgerald: A Psychoanalytical Critique of The Great Gatsby and Jazz Age Values, by William Greene

High School students often struggle with comprehension and critical analysis of the classic literature suggested by the Common Core appendixes. Supplementing literature with its respective film adaptation will help to address this deficiency by giving students a visual representation of a story through which critical thinking and rich dialogue between students can occur. For this unit, students will analyze Baz Luhrmann's film adaptation of *The Great Gatsby* using the psychoanalytical critical lens theory to formulate conclusions around the stories' characters and author, F. Scott Fitzgerald.

Students will be considering questions around the characters' morality and how their behavior and psychological profiles are indicative of Fitzgerald's attitude as an author who was a witness to and participant in the Jazz Age. Students will draw connections to their own lives from themes surrounding class, materialism and gender. Lastly, they will learn how film is a unique medium for storytelling, in that techniques unique to film play an important role in developing characters, creating tension and portraying symbolism. This unit should be considered for teachers seeking to integrate a film dimension into a unit already in existence on *The Great Gatsby* or Fitzgerald as a means to increase the novel's accessibility for struggling or reluctant readers.

(Developed for English, grade 11; recommended for Film, grade 11)

2015.04.04

Film Analysis and Contemporary Issues: The Surveillance State, by Eric Maroney

This curriculum unit makes use film to build and enhance students' analytical reading and writing skills. Throughout the unit, students will identify and analyze the cinematic tools and choices a director employs to create meaning. This analysis will mirror the same close reading skills described in the Common Core State Standards (CCSS), which are the same practices students engage in when deconstructing traditional literature or written text. . Film replaces written text providing an alterative medium for students to engage with. This substitution is intended to remove the barrier of decoding; thus, allowing students access to complex texts and ideas. Thematically, the unit explores the ethics of surveillance. Students will examine *The Conversation* (1974), *Eagle Eye* (2008) and *Citizenfour* (2014) to consider the ideologies these texts produce regarding

surveillance and the evolution of surveillance technology. Students will explore the ways viewers are encouraged or discouraged to identify with particular characters and consider the way this spectator identification constructs the messaged agenda of the film. At the culmination of the unit, students will write a comparative analysis on two of the texts studied throughout the unit.

(Developed for English IV, grade 12; recommended for English and Civics, grades 9-12)

2015.04.05

You Should Be in a Dress and Camisole, by Molly Myers

At one point in the novel *To Kill a Mockingbird*, the character Ms. Dubose yells from her porch to a young Scout Finch, “you should be in a dress and camisole!” There are many such gendered moments in both the novel and film adaptation. These moments create many opportunities and points of access for students to read and analyze “texts” in terms of how the author or filmmaker make specific choices to establish setting, create character, and present important events. This unit will serve as the baseline for a women’s studies course taught as an elective to 11th and 12th grade students. The purpose of the unit is to introduce and pre-assess the skills of close reading and analyzing various texts (fiction, non-fiction, and film) in order to examine the concepts of “reading gender” and to introduce the necessary intersectional awareness in text and film to prepare students for the kind of analytical thinking we will be developing throughout the year.

(Developed for Women's Studies, grades 11-12; recommended for English and Reading, grades 9-12, and Sociology and Film Studies, grades 11-12)

2015.04.06

Deepening One's Understanding of Psychological Disorders Through Film: From One Extreme to Another - Depression and Schizophrenia, by Barbara Prillaman

In this unit film interpretation will be used to better understand the psychological disorders of depression and schizophrenia. Following the Common Core Standards, students will read for meaning and interpret multiple sources (written text and film) regarding depression and schizophrenia. High school students will focus on the guiding questions: How is psychologically abnormal behavior defined? What are the symptoms and causes of depression? Describe the symptoms and causes of schizophrenia? What are the challenges associated with these diagnoses? What cinematic elements help with the portrayal of psychopathology in movies? How do the cinematic elements of the film accentuate or contribute to your understanding? Students will participate in Socratic Seminars to critically read, view, and prepare to actively participate in conversations to help them make meaning of this complex content. Additionally, they will write individual

patient reports to represent their understanding. Then, they will create collaborative public service announcements about the disorders.

(Developed for College Preparatory [CP] Psychology and Advanced Placement [AP] Psychology, grades 11-12; recommended for Psychology courses, grades 10-12)

2015.04.07

[Immigration and the Narrative Voice: Analysis of Image and Sound in Film and Its Connection to the Immigrants' Stories](#), by Kathleen Radebaugh

We are a nation of immigrants who bring different beliefs and values to the United States of America. In this curriculum unit for a middle school ELA or a history classroom, students will interpret and analyze how two different ethnic groups of the 1850s and the 1960s were portrayed in two different films. *Hester Street* is a film about how a Jewish family from Russia adjusts to their new community in Manhattan's Lower East Side in 1850. *West Side Story* is a filmed theatrical performance about two star-crossed lovers from different neighborhoods in Brooklyn. Each film has a very different style of portraying the stories of Jewish and Puerto Rican immigrants, yet students will see the parallels in themes and characters. The culminating assessment for the students is to analyze and evaluate the immigration process currently in the United States and to ask why immigration is a reform topic in the mayoral and presidential elections of 2016.

(Developed for English, grade 7; recommended for Social Studies, grade 7)

2015.04.08

[Lights, Camera, Action! Reading Children's Literature through Film in the Spanish Classroom](#), by Sobeyda Rivera

This curriculum unit describes an elementary Spanish course in which students will use film and literature. It is designed to let them compare Hispanic and Chinese cultures to their own. The course is targeted for second grade level students. Our world is a very diverse one and rich with cultural heritage. It is important to enable our students to understand more than one cultural heritage and to teach them to appreciate and respect other cultures. In this unit they will also discover the similarities of family dynamics in and how the Chinese family compares to their own. They will increase their geographical awareness and use map skills to identify the United States, China and some Latin American countries.

Using the Disney film *Mulan* and the *Mulan* legend, available as a literary text, students will be able to find clues to the bigger picture, to past and present. They will be analyzing and interpreting the film and then discussing their thinking with each other. By means of the film they will be able to see the family traditions, cultural pressures on Mulan and the bravery of her acts to protect her family. They will look closely at costumes, colors and

sound and how they create meaning. This study will enable them to develop their own classroom film.

(Developed for Spanish, History, and Social Sciences, grade 2; recommended for Foreign Language, History, and Social Sciences, grades 2-5)

2015.04.09

The Authenticity of Native American Indian Character and Culture in Book and Film, by Jolene Smith

Numerous works of literature and many films do not provide us with authentic information about the tribes of Native American Indians they address. This unit hopes to correct this problem. The texts selected are the *The Education of Little Tree* and *The Indian in the Cupboard* as well as the films made about them. Both books and films have numerous examples of fictitious events and inaccuracies concerning the Native American Indian characters' portrayal. This is where I as a Native American Indian educator step in to teach the authentic culture and traditions. Our own Diné culture and tradition will be studied along with that of the Cherokee and Iroquois. Often students do not know the truth about the many tribes, bands, and clans' culture and traditions. Instead, what they know is what they read and watch. A second focus of this unit is to introduce students to the idea of thinking about film as something that can be analyzed. We will discuss the formal aspects of film and compare them with the written texts on which they are based. The unit is designed for fifth grade students, but it can also be taught to sixth graders.

(Developed for ELA- Vocabulary, Reading, and Writing, grade 5; recommended for elementary grades 4-5)

2015.04.10

Life in the DDR through Film: German II, by Arcadia Teel

This unit uses the film, *Goodbye Lenin!* to increase vocabulary acquisition and introduce cultural aspects of the DDR to German II students. The film is broken down by chapters so that certain vocabulary can be emphasized using Teaching Proficiency through Reading and Storytelling (TPRS) methods. The selected vocabulary for a particular chapter is practiced by asking a story in which the students supply the details. The students then watch that chapter of the movie without sound and once more with sound. A critical analysis of that chapter takes place before the vocabulary is reinforced by having the students translate passages and rewrite parts of the story. Historical and cultural aspects of East Germany are emphasized during the analysis of the film's various chapters. This unit can be altered to be relevant for German II, German III, and German IV. Its analytical approach to film and history make the unit adaptable for film classes as well as European history classes. Methods used are suitable to meet MYP and IB standards.

(Developed for German II, grade 10; recommended for German III and History, grades 11-12)

V. Problem Solving and the Common Core

Introduction

The work in the seminar “Problem Solving and the Common Core” was centered on the taxonomies of one-step addition and subtraction problems and of one-step multiplication and division problems, given in Tables I and II of the Mathematics Glossary of the Common Core State Standards for Mathematics (CCSSM) (www.corestandards.org/Ma). We started by familiarizing ourselves with the addition and subtraction problem types. We constructed examples of problems of the fourteen types distinguished by the taxonomy. We shared and analyzed some of the examples, and we discussed how wording varied from type to type. From this we progressed to constructing, sharing, solving and analyzing two-step addition and subtraction problems, then three step. We went through a similar process with multiplication and division problems.

Studying word problem through the taxonomies provided some valuable insights. One is, it makes visible the complexity of the territory of word problems, in particular, the large number of different kinds of problems. (The number of types of two-step problems is in the hundreds, and the number of three-step problems is in the thousands.). The implication of this is that simple-minded approaches to word problems, such as using key words, are doomed to failure. For students to succeed at word problems, they must learn to read problems carefully and analyze the relationships between the various quantities given. Mastering word problems is genuine higher order thinking. A second insight is that the taxonomies can give teachers insight into the complexity, and increase their skill in navigating the territory of word problems, and in helping their students learn to do the same.

We ended by considering problems that combined types using any of the four operations. We observed that these multi-operation problems were more or less typical algebra problems. We discussed different approaches to solving such problems. We explored the standard approach through algebra: defining variables, converting the information in the problem to equations, and solving the equations. We also saw that many of the problems could be solved by what might be called arithmetic techniques, in which problem analysis allowed one to successively isolate the unknown quantity and find its value. In particular, we discussed examples of the classical *method of false position*, which was widely used before symbolic algebra was invented (mainly by Francois Viète in the late 16th century). We also discussed how the Singapore bar model method could be used to approach these problems.

The units are ordered by grade level, with the early grades coming first. Most of the units from the seminar make use of the addition/subtraction taxonomy. The first four units, which are for first and second grade, focus almost entirely on one-step addition and

subtraction problems, with carefully articulated mixes of the various types of such problems as described by the taxonomy. The units of Joshua Lerner and Melissa Anderson use the one-step taxonomy to build competence with multi-step problems. Problem solving ideas are combined with an introduction to fractions in Melissa Grise's unit, with proportional reasoning in Aaron Binge's unit, and with algebra in the units of Lawrence Yee and Hilary Waldo. The final unit, by Klint Kanopka, deals with estimation problems, in contexts where much of the information needed for solving is not given in the problem, but must be reconstructed by the student. All the units emphasize the need to for students to devote careful attention to understanding the problem, and to the relationship between the quantities involved, in order to arrive at a successful solution strategy.

Roger E. Howe

Synopses of the Curriculum Units

2015.05.01

[Taking the Problems out of Story Problems](#), by Corrina Christmas

This unit explores ways to give first grade students a good foundation of solving one step addition and subtraction story problems so that they will become better problem solvers in not only first grade but it will follow them into high school and even college.

It begins with decomposing numbers so that students understand how to break numbers into smaller numbers, adding and subtracting within ten, breaking double digit numbers into tens and ones, adding within twenty, and story problems.

The emphasis on this unit is the fourteen types of story problems (six change, six comparing, and two types of part, part, whole. Not only what they are but how to solve them. It focuses on using inverse operations to help students make connections about numbers and story problems.

This unit included the four step strategy in solving problems. Step one: How to understand the problem. Step two: Devise a plan of how to solve the problem. Step three: Carry out your plan and check your answer. Step four: Reflecting on the problem. Was the solution correct? If not what went wrong? Is there an easier way to solve the problem?

(Developed for Math/Story Problems, grade 1; recommended for Problem Solving, grade K, and Story Problems, grades 1-2)

2015.05.02

[Math is All Around Us: Representing and Solving One-Step Addition and Subtraction Word Problems within 20](#), by Danyelle Frye

This unit concentrates on representing and solving one-step addition and subtraction word problems within 20. It is important that students develop an understanding of the operations of addition and subtraction within the wide range of situations where addition and subtraction can be applied. Students solve problems of 3 types including change problems, part-part-whole problems and comparison problems. These types of problems are further divided according to position of the unknown quantity, resulting in 14 problem types. Instruction emphasizes the use of manipulatives based instruction following the concrete-pictorial-abstract approach. These strategies have been found effective with students with disabilities as well as students experiencing difficulty mastering mathematical concepts at a pace on par with their peers. The intended audience is first-grade. The unit could also be used with kindergarten students that need

enrichment or with older students who have not mastered problem solving of addition and subtraction word problems within 20.

(Developed for Elementary Mathematics, grades K-2; recommended for Elementary Mathematics, grades K-2)

2015.05.03

[Real World Problem Solving in Second Grade Mathematics](#), by Carol Boynton

For most second graders, the beginning of the year is a time for refreshing knowledge and skills from first grade. The summer away from direct instruction and opportunities for practice and guidance sometimes means a loss of solid understanding of learned concepts in mathematics. This three- to four-week unit is designed to review and build new understanding of one-step word problem solving using addition and subtraction as students develop skills and strategies they will use all year. The students, through a series of mathematical scenarios, will use the problem types identified in Table 1 of the Common Core Mathematics Glossary which covers addition and subtraction.

For the duration of the unit, the focus remains steadily on solving and later constructing a collection of word problems that provide robust and balanced practice. This integration of Language Arts and Mathematics throughout the unit guides students as they connect math to the real world using the scenarios of activities they engage in at school. A culminating activity includes the creation of a workbook filled with word problems, answer key included, authored by the second grade students themselves!

(Developed for Mathematics, grade 2; recommended for Mathematics, grade 2)

2015.05.04

[Planting a Seed for Problem Solving](#), by Christy Schmidt-Applegate

(Developed for Mathematics and Science, grade 2; recommended for Mathematics and Science, all grades)

2015.05.05

[Math at School: Modeling Addition and Subtraction in Everyday Classroom Scenarios](#), by Joshua Lerner

The Common Core State Standards present a helpful taxonomy for understanding the various types of addition and subtraction word problems. Considering these many contexts, and the fact that any number in a situation may be unknown in any given situation, there are so many possible variations in these word problems! To help students be able to eventually approach and solve *any* addition or subtraction situation, it is important to help students develop the habits of mind and approaches necessary to make

sense of word problems in general. This curriculum unit, written at Yale University in Summer 2015, uses a modeling method to help students make sense of word problems, and presents a logical sequence of presenting students with one-step and two-step problems. The unit also describes how to use a structured problem-solving lesson format to drive student higher-order thinking.

This curriculum unit will be taught to 3rd grade students but can be modified for 2nd grade and 4th grade classrooms. The research presented on word problem types, modeling, and structured problem solving is useful professional development for math teachers at all grade levels.

(Developed for Mathematics, grade 3; recommended for Mathematics, grades 2-4)

2015.05.06

[Creating a Culture of Critical Thinkers in the Mathematics Classroom: Reducing Dependency on Key Words](#), by Melissa Anderson

Creating a Culture of Critical Thinkers is a unit concerned with building confidence in the elementary student's ability to approach written math problems. This unit is intended for use in a fourth grade classroom, but can be applied to a wide range of settings. It is the intention of this unit to prepare students to parse and discuss many types of one and two-step, addition and subtraction word problems in an analytic and reasoned manner. Problems will be analyzed through whole group discussions and cooperative learning. In addition to giving examples on how to facilitate whole class discussions, a standard method for problem solving and a set of word problems will be included. It is my hope that students will begin to view themselves as expert problem solvers by the end of this unit.

(Developed for Mathematics, grade 4; recommended for Mathematics, grades 3 and 5)

2015.05.07

[Fractions: Building a Foundation through Conceptual Understanding and Problem Solving](#), by Melissa Grise

Do your students struggle with fractions? In the unit *Fractions: Building Conceptual Understanding and Problem Solving* students are given the opportunities to build their understanding of fractions and apply this knowledge to problem solving. This unit is geared toward 4th grade students who may be lacking the skills to access the classroom curriculum. The Common Core State Standards place a huge focus on building the understanding of fractions through the unit fraction. Therefore, students will begin this unit by developing their understanding of a unit and a unit fraction. Through the use of area models and linear models students will be able to represent various unit fractions. As the students explore these models they will see the connections between improper

fractions and mixed numbers. Students will then study the taxonomy of addition and subtraction problems. The practice will focus on the change increase and decrease problems with the use of fractions. Students will be given opportunities to solve, identify, and ultimately write their own word problems. Through these activities your students will have a much deeper understanding of what fractions represent and how to apply this when problem solving.

(Developed for Mathematics - Fractions, grade 4; recommended for Mathematics - Fractions, grade 4)

2015.05.08

Developing Proportional Reasoning, by Aaron Bingea

Proportional reasoning is the cornerstone of algebra and upper level mathematics. In the 6th grade students are tasked with developing this new form of thinking to solve problems involving ratios, rates, and proportional relationships. In years past, I have seen my students work through a unit on ratios and proportions and develop nothing more than a set of rules and procedures for identifying and naming ratios and solving for missing values in proportions rather than a more complete understanding of proportional relationships and their significance to problem solving. In this unit I lay out a sequence of essential understandings that are necessary to develop robust and flexible proportional reasoning. To reach these understandings, this unit discusses key strategies students will employ to work through a purposefully sequenced, cohesive set of problems that provide a foundation for students to develop sound proportional reasoning.

(Developed for Mathematics, grade 6; recommended for Mathematics, grades 6-8)

2015.05.09

Equations in the Common Core: Algebraic Reasoning and Problem Solving, by Hilary Waldo

Algebraic reasoning is a capstone of middle school math and serves as a gatekeeper of sorts for higher-level mathematics and future careers. Middle school students frequently lack the deep understanding of algebraic reasoning required to successfully manipulate and solve equations. This weaker foundation leads students to common algebraic mistakes like not completely distributing a term when multiplied to an expression or attempting to simplify an equation through inverse properties but only doing so on one side of the equation. These mistakes and their underlying misconceptions hinder student success, as the 8th grade curriculum requires an increasing level of sophistication in algebraic reasoning. A solid foundation in the underlying concepts of algebraic reasoning paired with a classroom approach rich with the use of manipulatives and physical models can increase students' capacity to solve multi-step equations. Manipulatives represent a

concrete representation of abstract algebraic reasoning that can serve to make the symbolic processes of algebra more accessible to all students.

(Developed for Common Core, grade 8; recommended for Algebra, grades 8-9, and Pre-Algebra, grade 7)

2015.05.10

Personalizing Problem Solving, by Lawrence Yee

This curriculum unit was designed to help students develop the mathematical problem solving skills and strategies necessary to access the mathematics embedded within word problems and scenario based problems. The ability to access the mathematics embedded within word problems and story-based scenarios is a major obstacle for students. Often word problems found in textbooks are written with unfamiliar contexts to many students. Personalizing problems to students' interests to make mathematical content and word problems more familiar and relatable to students is a recurring strategy that is emphasized throughout the unit. This unit presents an example personalized scenario with example word problems while discussing how a scenario can be extended to include a variety of mathematical content. Mathematical content discussed include the nine common types of one-step multiplication and division problems, extensions to two-step problems, and extensions of the scenario to influence the development of algebraic reasoning and problem solving. Reading strategies and differentiation of word problems to support student problem solving within a personalized context are also discussed.

(Developed for CCSS Mathematics 1 [Common Core State Standards Integrated 1], grades 9-12; recommended for Integrated Mathematics I, grades 8-9, Middle School Mathematics, grades 6-8, and Algebra I, grades 7-9)

2015.05.11

Solving Big Problems: Using Estimation to Develop Scientific Number Sense, by Klint Kanopka

This unit seeks to improve students' number sense, problem deconstruction and communication skills through the use of estimation questions known as Fermi Problems. Problem solving strategies, order of magnitude sense, estimation skills, an understanding of precision and experience justifying mathematical computations with writing will be developed. Students always ask, "when will I need this" and this unit attempts to give them something they can use. The true value of a physics education comes in the ability to ask questions, make observations and solve problems. Not just textbook or classroom problems, but real life problems. Number sense, especially when orders of magnitude are concerned, is a tough skill to develop and internalize. Being able to decompose complex questions into approachable parts puts understanding within reach.

This unit is designed for an 11th grade Physics class concurrently enrolled in Algebra 2 or Precalculus. It doesn't depend on any particular physics content knowledge, so it is immediately applicable in a chemistry class. It would also fit well into an Algebra 1, Algebra 2 or Precalculus class offered at the high school level. The complexity of questions and techniques can be scaled depending on the age of the students.

(Developed for AP Physics I and Advanced Physics, grade 11; recommended for Physics, Chemistry, Environmental Science, and Mathematics, grades 9-12)

VI. Physiological Determinants of Global Health

Introduction

W. Mark Saltzman

Synopses of the Curriculum Units

2015.06.01

Diabetes and Navajo Nation, by Priscilla Black

An observation of Native American Indians shopping at our local grocery store is frightening. Most young parents fill up their shopping carts with sugary foods or foods that are high in carbohydrates. The new age of process food has our native people in a battle against diabetes. A generation of many Navajos understanding Type 2 diabetes is here. Student will see that human pancreas is an amazing gland that has a two part system that regulates the sugar in the blood stream. The unit will give teachers some ideas of how to catch a young person's mind with an introduction of how Navajos and Alaskan Indians are two times more likely to be victims of Type II diabetes. Let's not stop at that, as you research Type II diabetes, you will be surprise that the United States and other countries are seeing increased incidence of this hormonal disease with great concerns. What is there to do? This unit will break down the reasons why Type II diabetes has becomes a problem. Students will learn the anatomy and physiology of the pancreas. It will help students understand how the body break downs sugar, store it and uses sugar. And of course, how the cells accept or rejects the glucose in our blood stream.

(Developed for English Language Arts, grade 4; recommended for Science, grade 4)

2015.06.02

Towards an Understanding of Disease Burdens in Developing and Developed Nations, by Cristobal Carambo

The effect of carcinogens and pathogens on human health is a central theme in all environmental science classes. Our health depends on an array of chemical, physical and biological processes that maintain homeostasis. These internal mechanisms are directed by codes stored in our DNA: our genotype. Health is however determined by the complex interaction of our genotype with the external environment as pathogens and toxins can invade our bodies and occasion disease and / or death.

Recent health crises have proven that health must be viewed from a global perspective. This unit will explore the physiological determinants of global health in two distinct phases. Students will first study the cellular and genetic systems that maintain and safeguard their health. The second phase will require them to evaluate data sets from the 2015 WHO global health summary and explain how demography influences health outcomes.

The common core standards suggest that teachers provide students the opportunity to evaluate and critique the assumptions and theories that inform science phenomena in their

everyday lives. Engaging students in the analysis of complex sociocultural issues that affect global health will help improve these vital analytical skills.

(Developed for Environmental Science, grade 11; recommended for Biology, grades 10-11)

2015.06.03

Effects of Carcinogens on Cells, by Dawn Curtis

Cancer is the name given to a collection of related diseases caused by the uncontrollable growth and reproduction of mutated cells. No country in the world is safe from cancer creating a global impact on health and economics. Cancer is the second highest cause of death in the United States. Genetics, tobacco use, sun exposure, radiation exposure, diet and physical activity, alcohol consumption and other carcinogens such as pesticides contribute to the increased risk of cancer all over the world. Through an awareness of some common carcinogens and cancer risks students will discover ways to possibly decrease their personal risk. This unit discusses what carcinogens and cancer are and how a healthy cell becomes a cancerous cell on a level for sixth grade science students. It introduces the reproduction of cells and mitosis. This unit also provides an introduction on DNA and genes in respect to the creation of a cancer cell.

(Developed for Science, grade 6; recommended for Science, grades 6-8)

2015.06.04

Genetics and Mechanisms of Disease, by Corryn Nikodemski

What keeps us alive? While it only takes four words to ask the question, an entire textbook is needed to answer it. Posing this question to sixth graders allows me to gain valuable insight about a group's background knowledge: Some sixth graders are quite knowledgeable, but, more often than not, they have a basic understanding of the human body. This unit is designed for students to preview basic vocabulary and concepts associated with genetics and disease. Understanding these concepts will foster connections between basic anatomy and physiology and molecular biology. Students will be briefly exposed to cells and their nuclei, will discover how DNA is important to life functions, and will read informational text on inherited diseases like Hereditary Sensory Autonomic Neuropathy (HSAN) and Cystic Fibrosis. To support language arts teachers in the transition to the Common Core, students will be expected to read informational text using close reading strategies. This unit utilizes hands-on activities to build interest, direct instruction on content using structured note-taking, and mini-lessons on reading strategies to assist with the comprehension of content students are responsible for reading alone.

(Developed for General Science, grade 6; recommended for Middle Level Science, grades 6-8)

2015.06.05**Recombinant DNA Technology and Global Health, by Tarie Pace**

The unit, Recombinant DNA Technology and Global Health, is designed to teach students the benefits of genetically modified organisms. It focuses on the basic needs of living organisms, and how environment plays an integral role in acquiring them. Students will learn how DNA functions as a blueprint for living organisms. Students will explore how scientists use DNA to understand the traits and characteristics of plants and animals. They will also use computer applications to determine how characteristics are passed from parent to offspring. The unit provides several experiments to demonstrate the extraction of DNA from human and plant tissue. There is also content information available to provide instructors with background knowledge about biofortified crops, and why they are needed in different regions. Literary resources are included to give students relevant information about genetically modified organisms. The listed activities can be used in a primary classroom, but simple modifications are listed for use in upper grades. A research component is included to provide students with independent research on the effect of biofortified crops. This unit can be used to highlight regional disparities of nutritional intake, and how students can use problem-solving skills to address them.

(Developed for Science and Social Studies, grade 3; recommended for Science and Social Studies, grades 4-6)

2015.06.06**Statistical Methods and Health in Chicago, by Sarah Schneider**

The neighborhoods of Chicago lend themselves to a rich study of epidemiology. In this unit, students learn to apply core statistical methods to health data sets. Students will work to understand the purpose and the power of summarizing these data sets as they represent and model complex health situations in their surrounding community. Through team exploration and guided research, they will complete and present an in depth statistical study into a relevant health topic of their choice. Teams will then work to communicate their findings to their school community as they learn to advocate for themselves and their health. Students in this 11th Grade IB Diploma Program Mathematics course will also be expected to make interdisciplinary connections in their IB Diploma Program Biology course throughout the school year as they investigate the biological underpinnings of health and disease.

Note: The scope and sequence of this 11th Grade Diploma Program Mathematics course is similar to that of an Honors Precalculus course. Prerequisites for this course are High School Algebra, Geometry, and Advanced Algebra with Trigonometry.

(Developed for Diploma Program Mathematics Standard Level, grade 11; recommended for Statistics, Algebra I-II, and Biology and related Life Science, grades 9-12)

2015.06.07

[The Changing Threat of Malaria and the Impact on Global Health](#), by Joe Van Sambeek

The curricular unit: *The Changing Threat of Malaria and the Impact on Global Health* is designed to be taught to students in a high school biology course. Malaria is one of the largest killers today. Even with billions of dollars being spent every year, over 200 million people are afflicted with the disease each year, killing more than 500,000 of them. Through an examination of the disease malaria, students are exposed the nature of the disease itself, the potential impacts climate change might have on the disease, the effects on humans, and propose solutions to reduce human suffering. Hands on activities include examination of various types of cells and microscopic organisms, raising of mosquitos to observe their lifecycle and investigating potential mitigation efforts to minimize human suffering.

(Developed for Biology, grades 10-11; recommended for Biology and Environmental Science, grades 10-12)

2015.06.08

[Every Breath You Take - Air Pollution's Effects on Respiratory Health](#), by Vanessa Vitug

Have you ever tried to breath in air that is polluted? How much small particulate matter like dust, soot, smoke, and fumes can be inhaled before your lungs are permanently damaged? Global air pollution is an ongoing health problem faced by billions of people each year. Understanding and controlling air pollution can potentially prevent human respiratory disease.

The objective of this unit is for students to understand how the respiratory system is affected by chronic obstructive respiratory disorders like asthma, restrictive lung diseases like silicosis, and second hand smoke exposure. Students will understand the relation between pressure, flow, resistance, and volume in the mechanism of breathing and gas exchange. This background of respiratory anatomy and physiology will allow for students to connect the global problem of air pollution to the respiratory health of individuals.

Varied Common Core based classroom activities will connect real world historical and current issues to help anatomy and physiology students apply the content beyond the classroom. Through these connections, and the freedom for students to explore and innovate solutions to today's world problems, we will help students and teachers become advocates for clean air and meet the demands of the Next Generation Science Standards.

(Developed for Physiology, grades 11-12; recommended for Biology, grades 9-10)

2015.06.09

The Role of Hormones in Homeostasis, by Andrea Zullo

The endocrine system relies on an intricate network of chemical messengers called hormones to control growth, development, and metabolism from cradle to the grave. One of the key components of the endocrine system is its ability to maintain homeostasis. When the body deviates from a set-optimal point, this system brings it back to normal. There are devastating consequences when they body cannot restore balance. This unit provides a survey of the endocrine system, and how positive and negative feedback controls our body. This topic involves the analysis of positive and negative feedback loops and what happens when their delicate balance is disrupted. Examples of diseases like acromegaly, diabetes insipidus, Hashimoto’s disease, and low testosterone are discussed in conjunction with feedback loops. This unit ends with a look at medical interventions and the use of anabolic steroid abuse in athletics. Students explore the above concepts using modeling, jigsaw reading, and other techniques compliant with Common Core State Standards for literacy. The content and activities in this unit are meant for high school students in biology or anatomy and physiology, but can be scaled to suit most grade levels.

(Developed for Human Body Systems, grades 10-11; recommended for Anatomy and Physiology Elective; Biology, grade 10; Health Courses, grades 9-12; and middle school Biology; grades 6-8)