Research and the Common Core

A Handbook for PCSD Teachers of Grades 6 through 12

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INTRODUCTION

What is research?

Research is a process that requires questioning, analyzing, and synthesizing information and ideas from a single or multiple sources in order to arrive at one’s own understanding. Research is not a linear process; rather, it is recursive. During the process of gathering, evaluating, and summarizing the work of others, new questions arise that lead to further exploration of the topic. Ultimately, research should involve sharing one’s newfound understanding with others. This communication may take the form of a formal research paper, an oral argument, a small group or whole class discussion, a multimedia presentation, or even a single paragraph.

What are some misconceptions about research?

Misconception: With all this content to cover, I don’t have time for research projects.

Reality: Research is not an add-on. It’s a vehicle for empowering students to discover content for themselves. With research, one does more than merely cover the content, one engages with the content.

Misconception: The students don’t like to do research. It’s one more battle, and I’m just not up for the fight.

Reality: Research is about asking questions and finding answers. We may need to frame the learning, but students are naturally curious, and curiosity is a powerful motivating force.

Misconception: I bring the laptop cart into my room. The students find everything they need on the Internet.

Reality: The laptop cart is not a substitute for a library and a librarian. Contrary to popular belief, everything is not on the Internet. Students can’t just “Google it” in college.
Misconception: The students are more tech-savvy than we are.

Reality: To be tech-savvy is not to be information-savvy. Digital natives are not born knowing how to construct a Boolean search or locate peer-reviewed resources. They must be taught to evaluate what they find in order to become discerning consumers of information.

Misconception: I don’t know how to teach research!

Reality: You don’t have to know everything about how to teach research. You can partner with your librarian, another teacher, and/or your special education colleagues.

What does collaboration look like?

Collaboration is a powerful process. Students are best served when professional educators join forces to promote student growth and mastery. Some of the best resources can be found both inside and outside our schools—between and among grade levels, departments, and disciplines, and with members of the local and global communities. By tapping into these resources, we further our own knowledge and provide our students with best practices in education to optimize their learning experience. For instance, a global studies teacher has the knowledge and expertise of important accomplishments during the Golden Age of Ancient Greece, while a librarian has specialized skills in accessing reliable research materials that are age-appropriate, authoritative, and relevant. If these two educators combine their strengths to co-plan and, when appropriate for the learning objective, co-teach lessons, students reap the benefit of experts in both fields.
What can research look like in the classroom?

When we think of research, we think of the five-page paper on sharks or the oral report on Ancient Greece. We think of note cards and dusty bookshelves and topics that may or may not be interesting to the students conducting the research, but it does not have to be this way. Research can and should be a process of discovery, in which a student feels fully invested in the topic as well as the process. The intent of this section of the handbook is not to prescribe specific projects, but to offer some ideas. Below are just a few examples of what research can look like in the classroom.

**Example 1**

Mr. Ames is trying to help his seventh-grade math students to see the connection between the math skills that they are learning and their lives. He begins a discussion with the class about their interests. On the board, the class compiles a list of common interests: music, video games, sports, and movies. As a side-project to the daily work that they’ll be doing in math, Mr. Ames divides the class into four teams and assigns one of these interests to each. He asks them to take two weeks to research how math is used in each of these fields. He invites in Mrs. Hammet, the librarian, to speak with the class about how to identify and locate reliable sources. She explains that they may begin their research with Google or Wikipedia, but only as means for finding more reliable sources. At the end of the project, students from each team present what they learned and what their sources were. As a class, students talk about what they found AND evaluate the sources.

This approach to research doesn’t require students to keep a works cited page or create parenthetical citations, but they still must employ a simplified research process and use their information to inform their learning. The class discussion about the information and sources provides an opportunity for the teacher to address source validity. Students also learn about the role that the library and librarian play in helping them to learn about how to conduct research. Additionally, Mr. Ames, in collaborating with the librarian, is able to rely upon Mrs. Hammet’s expertise and does not have to bear the full weight of the project on his shoulders.
Example 2
In Mrs. Franklin’s earth science class, students have been learning about some of the early discoveries of Sir Isaac Newton. Mrs. Franklin wants her students to understand the fundamentals of these discoveries, certainly, but also wants them to learn about the discovery process. She offers various project options to match the learning styles of her students. Among them is the option to compose a short piece of historical fiction. Students who choose this option must take one of Newton’s discoveries and conduct research about what led to it. Then, they must write a short story, personal journal, or one-act play that fictionalizes Newton’s experience as he begins the experiments that led to his discovery.

An approach to research like this crosses content areas. Students who like creative writing, in this case, can learn something important about science and develop a more personal connection to Newton while employing a practice that they enjoy.

Example 3
Madame Jordan is assigning an essay to her French students that will serve as a summative assessment for their unit about French cultures around the world. Students must identify the cultural elements in a French folktale and make connections between them and characteristics of a contemporary French-speaking society as reflected in a current news story.

Because students only need one news source, the research portion of this assignment is brief but targeted. However, students will still learn how to discriminate between a reliable and an unreliable source and how to synthesize information in a concise and meaningful way.
What do the Common Core Learning Standards say about research?

According to the “New York State P–12 Common Core Learning Standards for English Language Arts and Literacy”:

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to conduct research and to produce and consume media is embedded into every aspect of today’s curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section. (2)

In creating this document, we have looked to the following five College and Career Readiness Anchor Standards because they pertain most directly to the research process:

W.CCR.7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

W.CCR.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism. (54)

R.CCR.1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

R.CCR.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

R.CCR.8 Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. (45)
What should students know and be able to do at each grade level?

The “New York State P–12 Common Core Learning Standards for ELA and Literacy” and the American Association of School Librarians’ Standards for the 21st-Century Learner were used to develop the grade-specific sequence of skills on the following pages.
## Grade-by-Grade Sequence of Research Skills

<table>
<thead>
<tr>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
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<tbody>
<tr>
<td>Conduct short, inquiry-based research projects to answer a question</td>
<td>Conduct short, inquiry-based research projects to answer a question</td>
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<td>that will further content knowledge.</td>
<td>that will further content knowledge. Question may be student-generated</td>
<td>that will further content knowledge. Question may be student-generated</td>
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<tr>
<td></td>
<td>or provided by the teacher.</td>
<td>or provided by the teacher.</td>
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<td></td>
<td>After gathering background information on a question, develop</td>
<td>After gathering background information on a question, develop</td>
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<td>2–3 focused questions to guide research.</td>
<td>3 focused questions to guide research.</td>
</tr>
<tr>
<td>Use the organizational features of print and digital sources to</td>
<td>Identify search words and use them to locate sources and to locate</td>
<td>Identify search words and use them to locate sources and to locate</td>
</tr>
<tr>
<td>efficiently locate specific information on an assigned topic.</td>
<td>relevant information within a source.</td>
<td>relevant information within a source.</td>
</tr>
<tr>
<td>Use multiple (3 or more) print and digital sources. Sources may be</td>
<td>Use multiple (3 or more) print and digital sources.</td>
<td>Use multiple (3 or more) print and digital sources.</td>
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<tr>
<td>pre-selected by librarian and/or teacher.</td>
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<tr>
<td>Evaluate sources for currency, credibility, readability and</td>
<td>Evaluate sources for currency, credibility, readability and</td>
<td>Evaluate sources for authority, currency, credibility, readability and</td>
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<tr>
<td>relevance.</td>
<td>relevance.</td>
<td>relevance.</td>
</tr>
<tr>
<td>Interpret information presented in diverse media and formats (e.g.,</td>
<td>Interpret information presented in diverse media and formats (e.g.,</td>
<td>Analyze the purpose of information presented in diverse media and</td>
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<tr>
<td>visually, quantitatively, orally) and explain how it contributes to a</td>
<td>visually, quantitatively, orally) and explain how it contributes to a</td>
<td>formats (e.g., visually, quantitatively, orally) and evaluate the</td>
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<tr>
<td>topic, text, or issue under study. SL.6.2</td>
<td>topic, text, or issue under study.</td>
<td>motives (e.g., social, commercial, political) behind its presentation.</td>
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<td></td>
<td></td>
<td>SL.8.2</td>
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<tr>
<td></td>
<td></td>
<td>Identify subtopics to guide research and organize writing.</td>
</tr>
<tr>
<td>Grade 6</td>
<td>Grade 7</td>
<td>Grade 8</td>
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<tr>
<td>------------------------------------------------------------------------</td>
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<tr>
<td>When not finding needed information, refocus the inquiry by using different search terms and/or selecting different sources.</td>
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<td>Identify gaps in research and potential sources of additional information.</td>
</tr>
<tr>
<td>Provide basic bibliographic information using a teacher-provided form or NoodleBib MLA Starter.</td>
<td>Create a bibliography in MLA format using NoodleBib Junior.</td>
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</tr>
<tr>
<td>Complete an inquiry-based research process by sharing new learning with others.</td>
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<td>Complete an inquiry-based research process by sharing new learning with others.</td>
</tr>
<tr>
<td>Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. SL.6.5</td>
<td>Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. SL.7.5</td>
<td>Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. SL.8.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate the effectiveness of one’s own research process. Set goals for improvement.</td>
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<tr>
<td>Grade 9</td>
<td>Grade 10</td>
<td>Grades 11–12</td>
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<tr>
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<td>---------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
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<tr>
<td><strong>Conduct more sustained, inquiry-based research projects to answer a question or solve a problem which will further content knowledge. Question or problem may be student-generated or provided by the teacher (e.g., Propose a solution for...; Develop a proposal for...).</strong></td>
<td><strong>Conduct more sustained, inquiry-based research projects to answer a question or solve a problem which will further content knowledge. Question or problem may be student-generated or provided by the teacher (e.g., Propose a solution for...; Develop a proposal for...).</strong></td>
<td><strong>Conduct more sustained, inquiry-based research projects to answer a question or solve a problem which will further content knowledge. Question or problem may be student-generated or provided by the teacher (e.g., Propose a solution for...; Develop a proposal for...).</strong></td>
</tr>
<tr>
<td>Understand the difference between keyword and subject searches and use them to search databases effectively.</td>
<td>Use advanced search techniques (Boolean searching, use of limiters and related subjects) effectively to locate relevant information.</td>
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</tr>
<tr>
<td>Use multiple (3 or more) print and digital sources.</td>
<td>Use multiple (4 or more) print and digital sources.</td>
<td>Use multiple (4 or more) print and digital sources.</td>
</tr>
<tr>
<td>Identify and use primary sources when appropriate.</td>
<td>Actively seek various perspectives on a topic.</td>
<td>Understand the difference between popular and scholarly sources. Locate and select scholarly sources when appropriate to the task.</td>
</tr>
<tr>
<td>Know how to use interlibrary loan services to gather materials for research.</td>
<td>Know how to use interlibrary loan services to gather materials for research.</td>
<td>Know how to use interlibrary loan services to gather materials for research.</td>
</tr>
<tr>
<td>Identify subtopics to guide research and organize writing.</td>
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</tr>
<tr>
<td>Know when to narrow, broaden or refocus the inquiry, and use tools and strategies to do so.</td>
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<td>Know when to narrow, broaden or refocus the inquiry, and use tools and strategies to do so.</td>
</tr>
<tr>
<td>Evaluate sources for authority and usefulness.</td>
<td>Evaluate sources for authority and usefulness.</td>
<td>Assess the strengths and limitations of each source used in research in terms of task, purpose and audience.</td>
</tr>
<tr>
<td>Evaluate information for accuracy by comparing it with information in other sources.</td>
<td>Evaluate information found in selected sources on the basis of social and cultural context.</td>
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</tr>
<tr>
<td>Form opinions and support with evidence.</td>
<td>Draw clear and appropriate conclusions supported by evidence and examples.</td>
<td>Draw clear and appropriate conclusions supported by evidence and examples.</td>
</tr>
<tr>
<td>Cite sources in MLA format using NoodleBib Advanced.</td>
<td>Cite sources in MLA format.</td>
<td>Cite sources according to the publication guidelines of the discipline to which the subject of the paper pertains.</td>
</tr>
<tr>
<td>Grade 9</td>
<td>Grade 10</td>
<td>Grades 11–12</td>
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<td>------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. SL.9-10.5</td>
<td>Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. SL.9-10.5</td>
<td>Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. SL.11-12.5</td>
</tr>
<tr>
<td>Demonstrate respect for intellectual property by abiding by copyright law and following fair use guidelines when using print and digital media.</td>
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<td>Demonstrate respect for intellectual property by abiding by copyright law and following fair use guidelines when using print and digital media.</td>
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</tbody>
</table>
PLANNING THE PROJECT

Content Area Standards and Learning Objectives
It is logical to begin by establishing what your objectives are. What are the standards, essential understandings, and essential questions for your content area that you will address with the research unit? These will be the foundation for your planning.

Collaboration
Collaboration should begin in the planning phase, and it may continue throughout the project. You don’t have to do this alone.

The Product
What is the best vehicle to demonstrate a student’s mastery and understanding? Your answer to this question should determine the final form the product will take. It may be as formal as a research paper or lab report; it could be an essay, a speech, or a multimedia presentation. It can also be something that we don’t often associate with the word “research”, such as a whole-class discussion and extension assignment, a single paragraph, etc. The product possibilities are endless.

Project Length
Longer projects are not necessarily more rigorous than shorter projects. Consider several factors when determining the length of time you allot to a research project. What skills do students need to learn in order to be successful throughout the process? How much time do students need in order to create a quality product? How do you plan to use the resulting product? How will it inform your instruction?

The grade-specific guidelines for project length in the table below, as well as the definitions that follow, are from the Common Core Learning Standards.

<table>
<thead>
<tr>
<th>Common Core grade-specific standards for project length</th>
</tr>
</thead>
<tbody>
<tr>
<td>W.CCR.7</td>
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<tr>
<td><strong>Project length</strong></td>
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</table>
Short research project: "An investigation intended to address a narrowly tailored query in a brief period of time, as in a few class periods or a week of instructional time" (Council).

Sustained research project: "An investigation intended to address a relatively expansive query using several sources over an extended period of time, as in a few weeks of instructional time" (Council).

Inquiry-based Research

Inquiry-based research begins with a question or problem as opposed to a topic. It is a process for engaging students in creating their own understanding of a topic. Because students are naturally curious, teachers can leverage that curiosity and engage students by guiding them through a process of acquiring background knowledge, forming questions, exploring ideas, and accessing and analyzing information in order to answer the inquiry or solve the problem.

The grade-specific guidelines regarding inquiry in the table below are from the Common Core Learning Standards.

<table>
<thead>
<tr>
<th>Common Core grade-specific standards for inquiry-based research</th>
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<tbody>
<tr>
<td>W.CCR.7</td>
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<tr>
<td>Project purpose</td>
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</table>

Development of the research question may be a teacher-facilitated step in the research process, depending upon the level of study. After gathering background information, students may generate additional questions to guide their research. Teachers may wish to use techniques such as see-think-wonder and K-W-L to help students generate questions. The examples that follow pair a curricular topic with a guiding research question.
You are teaching a unit on the Middle Ages. Instead of assigning each student a topic such as the feudal system or the Crusades, consider having the students generate questions about a specific topic related to the Middle Ages. The students would then use their question(s) as the catalyst for their research.

- Topic: bubonic plague
- Possible research question: How did trade contribute to the spread of the bubonic plague?

You are currently discussing energy and how life makes energy available in order to maintain homeostasis. Instead of just covering the fermentation process, have students generate questions that can be tested to determine the most efficient methods for mastering fermentation in certain situations.

- Topic: fermentation
- Research question: How do biotic and abiotic factors affect fermentation in the brewing and baking industries?

You are currently reading *To Kill a Mockingbird* with your freshmen. Instead of assigning papers based upon the various themes in *To Kill a Mockingbird*, have students develop their own questions and themes based upon key topics.

- Topic: poverty in *To Kill a Mockingbird*
- Research question: How does poverty contribute to racism?
Sources

Require your students to use quality sources and hold them accountable. Your librarian is your resource expert and can help you and your students in a variety of ways. In addition to gathering relevant resources, he or she can co-plan lessons and teach your students to search for, access, and evaluate print and digital resources both within and beyond the school library.

The grade-specific guidelines regarding sources in the table below are from the Common Core Learning Standards.

Common Core grade-specific standards for sources

<table>
<thead>
<tr>
<th>W.CCR.8</th>
<th>grade 6</th>
<th>grade 7</th>
<th>grade 8</th>
<th>grades 9–10</th>
<th>grades 11–12</th>
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<tbody>
<tr>
<td>Sources</td>
<td>Gather relevant information from multiple print and digital sources</td>
<td>Gather relevant information from multiple print and digital sources</td>
<td>Gather relevant information from multiple print and digital sources</td>
<td>Gather relevant information from multiple authoritative print and digital sources</td>
<td>Gather relevant information from multiple authoritative print and digital sources</td>
</tr>
<tr>
<td>Evaluation of sources</td>
<td>assess the credibility of each source</td>
<td>assess the credibility and accuracy of each source</td>
<td>assess the credibility and accuracy of each source</td>
<td>authoritative print and digital sources.. assess the usefulness of each source in answering the research question</td>
<td>authoritative print and digital sources.. assess the strengths and limitations of each source in terms of the task, purpose, and audience</td>
</tr>
</tbody>
</table>

How many sources should you require?

The Common Core states that students should gather information from multiple sources. A general rule of thumb in research is that a minimum of three sources should be consulted. In some cases, and especially at lower grades, three sources are enough. We want students to read widely in the course of their research. Ultimately, they will need to synthesize the information from their multiple sources into a final product, and synthesis is a complex task. On the other hand, it’s best to make the maximum number
of sources somewhat flexible. Students should be dissuaded from thinking that their research is done when they have collected a specific number of sources. Only after close reading of sources and continual reference back to their research question can they determine whether or not they have enough information from enough perspectives to fully address their research inquiry, support their thesis, and present alternative views and interpretations.

What kinds of sources should you require?

The Common Core requires students to use print and digital sources. Students must become adept at accessing information from online databases, websites, audio podcasts, streaming video, and eventually from digital formats not yet invented as of the writing of this handbook! At the same time, despite Google’s grand plan, all of the world’s knowledge has not yet been digitized and much is still to be found between the covers of a book.

The types of sources required should match the assignment just as tools used should accomplish the job that needs to be done. Don’t require students to use a hammer when they really need a screwdriver, and don’t require a book source when the topic is a current event.

While we want to teach students to use a variety of sources, we don’t want to make the process so prescribed that students become frustrated or focused on the wrong things. When students are required to use, for example, one primary source, two secondary sources, two print sources, and two online sources, the search for information becomes for them a kind of scavenger hunt without the fun and without regard for the quality or content of what they are collecting.

Quality and complexity of sources

The most important requirement pertaining to sources is that they be of good quality. Our students are very good at Googling to find websites that are relevant to their topic but not as good at finding websites that are authoritative, credible, and accurate. Students need to learn how to evaluate sources in all formats and they need to be held accountable for selecting quality sources that are appropriate to their task, purpose, and audience. The Common Core includes specific criteria students must learn to apply when evaluating sources, and your librarian is experienced at teaching source evaluation skills to students. “Quality of sources used” is a parameter that belongs in every research rubric, and teachers should carefully review students’ source lists when assessing their research. For definitions and further explanation about quality sources, refer to Criteria for Evaluating Sources on pages 50 and 51 of this document.
The complexity of sources used should increase through the grades. The library collections, including their subscription databases, are built to support the curriculum and to meet the needs of students at all grade and ability levels. Librarians help teachers and students identify sources appropriate to their research needs. For example, a middle school student can be required to use *Time*, *Popular Science*, or other periodicals aimed at a general audience, while students taking AP courses should be required to use scholarly, peer-reviewed sources when appropriate to the task.
TYPES OF WRITING

Argument

An argument is a reasoned, logical way of demonstrating that the writer’s position, belief, or conclusion is valid. Arguments are used for many purposes—to change the reader’s point of view, to bring about some action on the reader’s part, or to ask the reader to accept the writer’s explanation or evaluation of a concept, issue, or problem.

- In English language arts, students make claims about the worth or meaning of a literary work or works. They defend their interpretations or judgments with evidence from the text(s) they are writing about.

- In history/social studies, students analyze evidence from multiple primary and secondary sources to advance a claim that is best supported by the evidence, and they argue for a historically or empirically situated interpretation.

- In science, students make claims in the form of statements or conclusions that answer questions or address problems. Using data in a scientifically acceptable form, students marshal evidence and draw on their understanding of scientific concepts to argue in support of their claims.

Although younger learners are not able to produce fully developed logical arguments, they develop a variety of methods to extend and elaborate their work by providing examples, offering reasons for their assertions, and explaining cause and effect. These kinds of expository structures are steps on the road to argument.

Informational/Explanatory

Informational/explanatory writing conveys information accurately. This kind of writing serves one or more closely related purposes: to increase readers’ knowledge of a subject, to help readers better understand a procedure or process, or to provide readers with an enhanced comprehension of a concept.

Informational/explanatory writing addresses matters such as types (What are the different types of poetry?) and components (What are the parts of a motor?): size, function, or behavior (How big is the United States? What is an X-ray used for? How do penguins find food?): how things work (How does the legislative branch of government function?): and why things happen (Why do some authors blend genres?).
To produce this kind of writing, students draw from what they already know and from primary and secondary sources. With practice, students become better able to develop a thesis and a coherent focus on a topic and more skilled at selecting and incorporating relevant examples, facts, and details into their writing.

They are also able to use a variety of techniques to convey information, such as naming, defining, describing, or differentiating different types or parts; comparing or contrasting ideas or concepts; and citing an anecdote or a scenario to illustrate a point.

Informational/explanatory writing includes a wide array of genres, including academic genres such as literary analyses, scientific and historical reports, summaries, and precise writing as well as forms of workplace and functional writing such as instructions, manuals, memos, reports, applications, and resumes. As students advance through the grades, they expand their repertoire of informational/explanatory genres and use them effectively in a variety of disciplines and domains.

Although information is provided in both arguments and explanations, the two types of writing have different aims.

Arguments seek to make people believe that something is true or to persuade people to change their beliefs or behavior. Explanations, on the other hand, start with the assumption of truthfulness and answer questions about why or how. Their aim is to make the reader understand rather than to persuade him or her to accept a certain point of view.

In short, arguments are used for persuasion and explanations for clarification. Like arguments, explanations provide information about causes, contexts, and consequences of processes, phenomena, states of affairs, objects, terminology, and so on. However, in an argument, the writer not only gives information but also presents a case with the “pros” (supporting ideas) and “cons” (opposing ideas) on a debatable issue. Because an argument deals with whether the main claim is true, it demands empirical descriptive evidence, statistics, or definitions for support. When writing an argument, the writer supports his or her claim(s) with sound reasoning and relevant and sufficient evidence.
Narrative

Narrative writing conveys experience, either real or imaginary, and uses time as its deep structure. It can be used for many purposes, such as to inform, instruct, persuade, or entertain.

- In **English language arts**, students produce narratives that take the form of creative fictional stories, memoirs, anecdotes, and autobiographies. Over time, they learn to provide visual details of scenes, objects, or people; to depict specific actions (for example, movements, gestures, postures, and expressions); to use dialogue and interior monologue that provide insight into the narrator’s and characters’ personalities and motives; and to manipulate pace to highlight the significance of events and create tension and suspense.

- In **history/social studies**, students write narrative accounts about individuals. They also construct event models of what happened, selecting from their sources only the most relevant information.

- In **science**, students write narrative descriptions of the step-by-step procedures they follow in their investigations so that others can replicate their procedures and (perhaps) reach the same results. With practice, students expand their repertoire and control of different narrative strategies.
SAMPLE PROJECTS

Medical Technology  
**Short Research Project (3 – 5 days)**

**Essential Question:** Should we tamper with our own biology?

Students will watch the TED talk by Anthony Atala, “Printing a Human Kidney” (2011), and take notes. They will then read the article “3-D Printing Offers Organs on Demand” (2013), by Jeremy Hsu, and take notes. Next, students will spend two to three days researching the current progress on creating human organs for transplant using 3D printers. They will write an essay that analyzes the need for this technology; explains how this technology works, including why these replacement parts eliminate transplant rejection; describes some of the difficulties researchers face in developing this technology; references current examples of replacement tissues that have been developed thus far; and comments on the future of this technology.

Artists  
**Short Research Project (3 – 4 days)**

**Essential Question:** How is an artist’s life reflected in his or her body of work?

After having read fictional texts in the classroom, students will spend three days in the library researching an artist of their choice. Students will locate information to help them understand the obstacles and barriers the artist overcame in his or her life and how that is reflected in his or her growth as artists. A simple note sheet will be used to record their information and sources. Students will synthesize their research and fictional text to compose a short essay.

Globalization  
**Short Research Project (2 – 3 days)**

**Essential Question:** How will globalization affect our future?

Students will view TED talks on differing viewpoints of globalization: “Ian Goldin: Navigating Our Global Future” and “Alex Tabarrok: On How Ideas Trump Crises”. Citing evidence from the talks, they will write a reflection that identifies which speaker they believe gave a more persuasive argument about globalization. Students will return the next day with their reflection and engage in a class discussion.
**Proyecto del Medio Ambiente**

**Short Research Project (4 – 6 days)**

Essential Question: What environmental issues pose challenges to societies throughout the Spanish-speaking world and what are possible solutions to these challenges?

Students will use a variety of sources, including online Spanish-language newspapers and websites of environmental organizations, to research current environmental issues in the Spanish-speaking world. They will enhance their knowledge of environmental issues, explore varied perspectives, and increase their vocabulary of technical terms. Students will write a two-page paper and deliver a brief oral presentation with visual media.

**Exploring the Strange and Mysterious**

**Sustained Research Project (3 weeks)**

Essential Question: Is my strange and mysterious topic the truth, a belief, or a hoax? How will I know?

Students will spend a few days exploring and debating the concepts of truth, belief, and hoax. Evaluating information sources is a key component of this project. As they are researching highly engaging topics, they will be reflecting on the information and sources they are using to help them answer the essential question. The final product is a presentation in which the student answers the essential questions and describes their research process.

**Courage in Life and Literature**

**Sustained Research Project (4 weeks)**

Essential Question: How does the Universal Declaration of Human Rights inform our understanding of the world’s need to respond to injustice?

This is a guided inquiry research project in which students will select one of the articles from the United Nations Universal Declaration of Human Rights and identify a current example of a human rights violation. Students will explore the topic to develop their own research question. They will use a variety of sources to locate information to answer their question and identify someone who has made a positive contribution related to the issue. Students will share their findings in a five-minute presentation.
Confronting Global Problems  Sustained Research Project (5 – 6 weeks)

Essential Question: How does knowledge of the past help solve the global problems facing many countries today?

The students will use a problem solving approach as they research a problem faced by a country or region of the world studied in Global 9. They will use a variety of sources to examine the history of the problem and identify all parties involved. In exploring potential solutions, they will consider past efforts to address the problem or similar problems and identify barriers to be overcome. Ultimately, the student will propose a solution(s) to the problem and explain their recommendation in a 3-4 page paper.

Pre-reading Research for Harper Lee’s To Kill a Mockingbird  Sustained Research Project (2 – 3 weeks)

Essential Question: How can knowledge of history increase our understanding of and appreciation for works of literature?

The students will be given teacher-generated questions to begin their research about the setting of the novel (e.g., What groups of people suffered most profoundly from the economic effects of the Great Depression and why? How was the educational experience of a child in the 1930s dependent upon their race, gender, and socioeconomic status?) They will spend a few weeks researching with the objective of answering their assigned question. Then students will construct an outline with a developed thesis statement, topics for body paragraphs, one embedded paragraph with citations, and a statement of conclusion at the end of the outline. Students will also complete a works cited page.

Supreme Court Cases Dealing with Student Issues  Sustained Research Project (3 weeks)

Essential Question: Do students leave their Constitutional rights at the classroom door?

The students will be given teacher-generated questions to begin their research on Supreme Court cases dealing with public schools (free speech in school, banning library books, student searches, drug testing of athletes, financing public schools by property taxes, and education of illegal immigrants). They will spend a few weeks researching one of the topics with the objective of answering the question. Then students will write an argument paper with an accompanying works cited page.
The I-Search Paper  

Sustained Research Project (3 weeks)

The I-Search paper is a little different take on the traditional research paper. Like many forms of research writing, however, the purpose of the I-Search is to create a paper that comes from student inquiry.

- **Philosophy:** The overall experience for the student should be one of discovery. The purpose is to deal with research in an authentic way.

- **Content:** In addition to reporting the findings of the research, the I-Search paper also describes the reason for writing the paper and the process of the search itself.

- **Style:** The I-Search paper is a narrative, written in first-person, which documents the entire process of searching. The author even discusses the path that led him or her to choose the topic he or she did. The whole paper should be readable and engaging; it should read like a story. There is a specific focus on the use of primary sources.
The I-Search Paper

What is it?

The I-Search paper is a refreshingly different take on the traditional research paper.

Why do it?

Generally, research papers are frustrating, boring experiences for students. The purpose of the I-Search is to create a paper the student truly cares about.

How is it different?

- Philosophy: The overall experience for the student should be more enjoyable and more useful. The purpose is to deal with research in an authentic way, rather than teach students to merely rewrite other information.

- Content: Rather than just stating the findings of the search, the I-Search paper also describes the reason for writing the paper and the process of the search itself.

- Style: The I-Search paper is a narrative, written in first person, which documents the entire process of searching. You even discuss the path that led you to choose the topic you do. The whole paper should be readable and engaging; it should read like a story that a real person wrote and cared about.

How is it organized?

Though it may not be in this precise sequence, the paper should roughly address each of these items:

1. What I already knew about the topic (or didn’t know)
2. What I’d like to learn or discover or take from the writing of this paper
3. What I did to learn about the topic—my search
4. What I learned (or didn’t learn—an unsuccessful search can still be valuable and enlightening)

How do I choose a topic?

Your topic chooses you. You follow your instinct, and explore something that you have a curiosity about. This is an opportunity to scratch an itch—about anything.
That being said, your topic should be somewhat practical. You should choose something that it is possible to learn about in a hands-on way, by talking to real people. Researching something like “Napoleon” may not be the right choice for this kind of paper.

**What kind of research will I do?**

You will most likely look in some books and at some websites, but a vital part of the I-Search paper is personal contact. Real world interaction with people that can help your search is required. Use the phone. Interview people. You may do library work, but library work alone will lead to a more traditional paper. You want a research paper that is as far from a normal research paper as you can get. To do that, you must leave the library and you must not rely on the Internet. This is not a Google-search paper. Be more thoughtful. Be creative.

An essential part of the research is personal reflection, freewriting, and memory. It can lead to surprising ideas and moving narrative. We will work on this throughout the project.

**Some quotations from The I-Search Paper, a book by Ken Macrorie:**

“It presents students with ways of building and forming their own opinions and knowledge, of building upon their own experience, which can make them authorities as well.”

“Most high schools and colleges have taken the ‘search’ out of ‘research.’”

“A person conducts a search to find out something he needs to know for his own life and writes the story of his adventure.”

“True investigators are excited, sustained in their work not by instructions but by curiosity.”

“Textbooks betray none of the humanity of their authors.”

“The I-Search comes out of a student’s life and answers some need in it.”

“Most textbooks present only conclusions…detached from the experience in which they were formed.”

“No individuals learn by giving back to authorities the accepted word the authorities have given them.”
## I-Search Work Schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Students: Interest questions; freewrite; share writing about 1 topic</th>
</tr>
</thead>
</table>
| Day 2 | Students: Freewrite about a second topic and share. Teacher: Explanation of I-Search  
*Handout:* the I-Search paper |
| Day 3 | Students: Continue to freewrite about topic possibilities and narrow into a question. Teacher: Explain goals for the library days. |
| Days 4–5 | Students: Work in the library.  
Teacher: Explain expectations for research.  
*Handout:* the I-Search paper week 2  
*Homework:* Write an informal reflection about their topic choice for teacher feedback. |
| Day 6 | Teacher: Explain the process for conducting research outside of the library and provide examples.  
Students: Devise a plan for research outside of the library.  
*Homework:* Type official question and sub questions, and type plan for research outside of the library. |
| Day 7 | Students: Read an I-Search paper example from Macrorie.  
Teacher: Examine content and style as a class, and review proper works cited format for an interview.  
Students: Begin to write the first section of the paper.  
*Homework:* Conduct initial research and document it. |
| Day 8 | Teacher: Discuss sample I-Search paper more, check homework to make sure students are getting something done, and emphasize importance of work at home. Students: Begin writing in class about “what I know” or “what I’d like to know” or “the search.”  
*Homework:* Continue searching and document it. |
| Day 9 | Teacher: Share another sample of a Sutherland student’s search diary and examine the creative way of storytelling. Students: Write (or rewrite) a description of their own search in a creative way.  
*Homework:* Continue searching and document it. |

Based on *The I-Search Paper*, by Ken Macrorie
Global 9 Informational Research Paper

**How does knowledge of the past help solve the global problems facing many countries today?**

It is the responsibility of the global community to help solve some of the major problems facing countries today. The approach to solving any problem is essentially the same. First, you must clearly define the problem. Then identify and examine all players involved. You must examine the history behind the problem. Finally, you should consider all past approaches to similar problems and the extent to which these approaches might be successful in addressing the problem you’ve identified. Ultimately, a solution(s) to a problem must be proposed and later evaluated to determine if it was successful.

This is the approach we are going to take in our research paper this year.

**Day 1- In the classroom with Miss Hollinger**

We will be introducing the problem-solving approach to research.

**Day 2- In the computer lab with Miss Hollinger**

I will be handing out a list of global problems facing many of our global 9 countries today. You will be given a handout to complete while you are exploring your problem. On it you will be required to list some important information as well as questions that you generate to frame your research and your search for a solution. The questions will also ultimately guide you in writing your thesis statement. A thesis statement is a statement that you intend to prove in your paper using the information that you have gathered through a variety of different resources.

**Day 3- In the library computer lab with Miss Hollinger**

- Country identification and background research through database sources.

**Day 4- In the library computer lab with Miss Hollinger**

- Current state and current event sources

**Day 5- In the library computer lab with Miss Hollinger**

- Focus on solutions to the problem.

**Day 6- In the library computer lab with Miss Hollinger**
Approach to Research

Step 1: Explore current issues and/or problems in one of our global 9 countries. Begin to research your issue and formulate your research question.

- Examine the history of the problem in your country. What are some possible explanations for the problem? How have other events contributed to the escalation of the issue?
- Look at all sides and all key players involved in the issue. How does the makeup of these players contribute to the cause and/or effect of the problem in your country?
- Look at past solutions to the problem. To what extent have they been successful? What are some of the road blocks to the best solution?

Step 2: As your research paper should include a variety of sources, be sure to include at least 3 of the following:

- **News articles** on your topic
  - Be aware of the date the article was published. It is important to make sure that you are not including outdated information.
  - The news article must be from a reputable news source.
- **Secondary sources**
  - Books, databases, specialized encyclopedias are allowed.
  - No general web pages are allowed without approval.
  - No general encyclopedias may be used.
    - This includes Wikipedia, Encarta, World Book, and Britannica. These may not be cited and will not count.
- **Primary sources**
  - Diary entry, journal, eyewitness testimony, documentary, document and/or treaty

Step 3: Write your outline. Must be in MLA format.

I. **Intro**—Be sure to include a thesis  
II. **Body paragraph 1**—History of the issue. Include relevant historical, geographical, political, economic, religious and/or social background information of your country. Please include previous attempts to resolve the issue.  
III. **Body paragraph 2**—Current state of the country and issue within the country  
IV. **Body paragraph 3**—Proposed solution. Based on what you have told me above, what is the best solution to the problem? Be sure to support your solution.  
V. **Conclusion**—Please provide some closure to the paper. What trends do you foresee in the future? Please include any final thoughts.

Step 4: Write your paper.
REQUIREMENTS

- Information that should be in your paper:
  - Define and explain the historical background of your issue.
  - Explain the historical background of your country and how it has been impacted by the issue.
  - Analyze possible solutions and evaluate the extent to which they have been successful.
  - Propose a solution to the problem and support it.
- 3 – 4 pages, double-spaced, 12-point font, Times New Roman, 1-inch margins
- Full MLA heading with pages numbers on all pages, including the works cited page
- Proper use of parenthetical notation and a works cited page
  - As per school policy, you will receive a 0 if you omit either of these, regardless of how good your paper is, as it will be considered plagiarism.
- You will submit the paper online to turnitin.com

IMPORTANT DUE DATES

Source Guide Check: February 14, 2014

Outline: March 7, 2014

Final Paper: March 28, 2014
As you know, there have been a number of controversial issues concerning students that have been contested in our emotionally- and politically-charged legal system.

**Your Task:** Research a Supreme Court case about a school-related issue. In addition to presenting the facts of the case, you are also going to research the issue itself and its significance. THEN you will develop a working thesis around which you will draft your paper. Your thesis may or may not be in agreement with the decision of the Supreme Court. You will look beyond the Court’s ruling of constitutionality to apply a broader standard to the issue and support it with your thesis.
Are there circumstances under which schools should be able to limit students’ rights to free speech in the school setting?

Should school boards have the authority to ban certain library books?

Can school officials invite a member of the clergy to say a prayer at graduation?
*Lee v. Weisman* (1992)

Are there circumstances under which school officials should have the authority to search a student’s belongings?
*New Jersey v. T.L.O.* (1985)

Should schools be able to require student athletes to submit to random drug tests?

Do schools have a responsibility to protect students from harassment by other students?
*Davis v. Monroe County Board of Education* (1999)

Is a student entitled to a fair hearing prior to a suspension?
*Goss v. Lopez* (1975)

Is the financing of public education by property taxes discriminatory?

Do the children of illegal immigrants have the right to a free public education here in the United States?
<table>
<thead>
<tr>
<th>DAY</th>
<th>DATE</th>
<th>PLACE</th>
<th>TASK</th>
<th>HW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>4/21</td>
<td>124</td>
<td>Introduction to the project</td>
<td>Come up with organization system for research unit; mark 2–3 court cases you think might be interesting; read and annotate materials from class—write down any questions you have (by Wednesday’s class)</td>
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<tr>
<td></td>
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<td></td>
<td>Paraphrasing and summarizing</td>
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<td>Reading, highlighting with discernment, and annotating</td>
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<td></td>
<td>Source Cover Sheets</td>
<td></td>
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<tr>
<td>Tuesday</td>
<td>4/22</td>
<td>124</td>
<td>Research skills pre-assessment</td>
<td>Come up with organization system for research unit; mark 2–3 court cases you think might be interesting; write down any questions you have</td>
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<tr>
<td>Wednesday</td>
<td>4/23</td>
<td>Lib</td>
<td>Any questions; note-taking review; explore cases on Oyez website; note-taking from Oyez and summarizing with integrity</td>
<td>Notes and summary of one/selected case; works cited page with Oyez cited on it (due tomorrow)</td>
</tr>
<tr>
<td>Thursday</td>
<td>4/24</td>
<td>Lib</td>
<td><strong>Turn in summary;</strong> getting to know your topic and its vocabulary; find and read overview article from database; start listing search words EOC: chart paper: your topic’s vocab.</td>
<td>Reading and learning; note-taking from one case overview article from database; complete Source Cover Sheet</td>
</tr>
<tr>
<td>Friday</td>
<td>4/25</td>
<td>Lib</td>
<td>Moving beyond the case to the issue</td>
<td>Reading and learning, cont’d. Retrieve database articles; complete note-taking process and Source Cover Sheets for all</td>
</tr>
<tr>
<td>Day</td>
<td>Date</td>
<td>Location</td>
<td>Relevancy and currency</td>
<td>Opposing Viewpoints</td>
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<tr>
<td>Monday</td>
<td>4/28</td>
<td>Lib</td>
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<tr>
<td>Tuesday</td>
<td>4/29</td>
<td>Lib</td>
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<tr>
<td>Wednesday</td>
<td>4/30</td>
<td>Lib</td>
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<tr>
<td>Thursday</td>
<td>5/1</td>
<td>Lib</td>
<td></td>
<td></td>
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<tr>
<td>Friday</td>
<td>5/2</td>
<td>Lib</td>
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* If time allows: Brainstorm combinations of search words with your like-case group; predict outcomes; divvy up combo searches to retrieve articles on the issue

* Stay organized; continue reading and learning (and completing Source Cover Sheets); continue updating works cited page

* Reading and learning; note-taking

* Composition: What IS your opinion on the ISSUE? (Discussion Questions sheet); review of thesis statements

* Searching and note-taking continued; forming your opinion; update your works cited page; **working thesis on ½ sheet due tomorrow**

* Reading and learning; note-taking

* Work day
<table>
<thead>
<tr>
<th>Monday</th>
<th>5/5</th>
<th>Lib</th>
<th>Thesis revision based on feedback</th>
<th>Finalize your opinion; begin organizing materials into topics, categories, etc.; <strong>update your works cited page</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>5/6</td>
<td>124</td>
<td>Work day:</td>
<td>Outlining: heading, header, title, thesis, works cited page; <strong>bring in hard copy list of topics/draft of outline</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Thesis (cont’d); organizing; outlining</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>5/7</td>
<td>124</td>
<td>Outlining—peer review of thesis and topics for paragraphs</td>
<td>Outlining; bring in NEW hard copy of NEW draft with heading, header, title, thesis, topics for paragraphs (as upper case Roman numerals); updated works cited page</td>
</tr>
<tr>
<td>Thursday</td>
<td>5/8</td>
<td>124</td>
<td>Outlining to drafting</td>
<td>Outline with one body paragraph and updated works cited page</td>
</tr>
<tr>
<td>Friday</td>
<td>5/9</td>
<td>124</td>
<td>Drafting your paper</td>
<td>Drafting – continued</td>
</tr>
<tr>
<td>Monday</td>
<td>5/12</td>
<td>124</td>
<td>Drafting your paper</td>
<td>Continue drafting – <strong>Bring hard copy of draft to class tomorrow</strong></td>
</tr>
<tr>
<td>Tuesday</td>
<td>5/13</td>
<td>124</td>
<td>Revision</td>
<td>Revision – continued</td>
</tr>
<tr>
<td>Wednesday</td>
<td>5/14</td>
<td>124</td>
<td>Revision and editing</td>
<td>Final paper due tomorrow, THURSDAY (hard copy AND to turnitin.com by BOC)</td>
</tr>
</tbody>
</table>
Injustice, the global community, and The Universal Declaration of Human Rights

This research project is very different from the other projects we have taught due to the very nature of the Guided Inquiry process. Students were not provided with a requirement sheet at the onset of the project, as we wanted their focus to be on the many injustices that exist in their world. We needed to ignite their curiosity and passion first. From there, students conducted research based on their selection and connected this research to The Universal Declaration of Human Rights. A proposed outline follows, however, it must be deemed flexible in order to follow the true Guided Inquiry process which is driven by the needs of the students.

The overarching questions were posed to students: What is injustice? What is the responsibility of the global community to address injustice? What are the risks in combating injustice?

We began the unit by immersing students in the topic of injustice by having them view several powerful video clips. Over the next three days, we engaged students in a variety of activities, including small and large group discussions, journal reflections, and reading the book *Every Human Has Rights: A Photographic Declaration for Kids*. These activities were designed to help students identify and understand overarching themes, define important terms, and cite specific examples of injustice. Ultimately, students selected an injustice that is currently happening in the world and related it to an article from the Declaration of Human Rights. They then developed their own research questions and took ownership of their inquiry processes.

The students conducted research for two weeks. They then identified key themes they discovered in the course of answering their research question. Students were also responsible for identifying an individual who has made a significant contribution in the efforts to rectify the human rights injustice they were researching.

The summative for this assignment was a 5–7 minute oral presentation using PPT. Students were responsible for taking narrative notes from at least four sources, creating a storyboard or outline for their presentation, and creating a bibliography.
RESEARCH TOOLS
## Pair-Share Protocol

<table>
<thead>
<tr>
<th><strong>Pair-Share Protocol Prompts</strong></th>
<th><strong>Getting Ready to Identify an Inquiry Question</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on what you’ve read, write down what seems interesting to you.</td>
<td>This is interesting...</td>
</tr>
<tr>
<td>Write why you think it is interesting.</td>
<td>This is interesting because...</td>
</tr>
<tr>
<td>Read over what you have written and write the things you would like to share with someone else.</td>
<td>I would like to tell about...</td>
</tr>
</tbody>
</table>
| **Pair-Share**  
**Partner A:** Shares  
**Partner B:** Listens and takes notes  
**Partner B:** Shares  
**Partner A:** Listens and takes notes | **Share with your partner and take notes.**  
Sharing helps to clarify your ideas for forming a good inquiry question. |
<table>
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</thead>
<tbody>
<tr>
<td><strong>Take notes</strong></td>
<td><strong>What is your partner telling you?</strong></td>
</tr>
<tr>
<td><strong>Partners exchange notes.</strong></td>
<td><strong>Your partner’s notes on what you shared can give you insight for forming possible inquiry questions.</strong></td>
</tr>
<tr>
<td><strong>Reflect on what you found interesting and how you described it to your partner. Think about possible questions to look into further.</strong></td>
<td><strong>Write three possible questions that you would like to explore further.</strong></td>
</tr>
</tbody>
</table>

_Baller/adapted from Guided Inquiry Design_
FROM TOPIC TO QUESTION
in four (4) easy steps

STEP 1: NARROW YOUR TOPIC. Trying to work with a topic that’s too broad makes your research difficult. These tools can help you narrow your topic to something more manageable:

Wikipedia article outlines
Database topic pages (Student Resource Center, Opposing Viewpoints)
Tables of contents in books

Examples: astronomy → space travel → the privatization of space travel
          endangered species → rhinoceroses → rhinoceros poaching in South Africa
          gambling → casino gambling
          environmental issues → waste disposal → radioactive waste disposal

STEP 2: DEVELOP YOUR RESEARCH QUESTION. The question you develop will provide direction and structure for your research. These question prompts can help you:

How does ________ affect _________?
Is there evidence to show that ________?
Is there a relationship between ________ and ________?
What are the key factors contributing to ________?
What are the benefits/consequences of ________?
To what extent does ________?
Should we as a society ________?
What is the value of ________?
Is ________ a viable solution to the problem of ________?
Do the benefits of ________ outweigh the costs to ________?
What are the alternatives to ________?

Examples: What are the potential benefits of privatizing space travel?
          Is dehorning a viable solution to the problem of rhino poaching in South Africa?
          Do the economic benefits of casino gambling, such as increased employment and tax revenues, outweigh the social costs?
STEP 3: REFINE YOUR QUESTION. If your question needs a sharper focus, try using one or more of these question limiters to further refine it:

Group limiters: children, teenagers, college students, women, politicians, rock musicians
Time period limiters: past decade, next century, fifty years ago, fifty years from now
Change over time limiters: growing popularity, decreasing awareness, development of
Geographic limiters: my community, NY State, US/Mexican border, polar regions

Examples: What are the key factors that have contributed to the growing popularity of tattoos among teens over the past decade? Is there evidence to show that the dumping of low-level radioactive waste in the North Atlantic and Pacific oceans has been harmful to marine life?

STEP 4: EVALUATE YOUR QUESTION. To determine whether your research question is likely to be the catalyst for an interesting, engaging, and focused research project, evaluate it using the criteria below.

Is your question TIRED or FRESH? A tired question is one that has been discussed to death.
Tired: What are the causes of eating disorders?
FRESH: Do the causes of eating disorders in men differ from the causes in women?

Is your question OPEN or CLOSED? A closed question can be answered simply with a definition, list, or brief explanation.
Closed: What is a space colony?
OPEN: Will viable, permanent U.S. space colonies be a reality within the next fifty years?

Is your question DEBATABLE? A question which could cause people with differing opinions to engage in heated argument will be interesting to research and write about.
No: What are the military rules of engagement?
YES: Do military rules of engagement require our soldiers to take unreasonable risks with their own lives?

Is your question FOCUSED? A focused question will provide necessary boundaries for your research.
No: How can gang violence be reduced?
YES: Is there evidence to show that mandatory minimum sentences reduce gang violence?
Source Cover Sheet

Source Information:

Title ________________________________________________

Author ________________________________________________

Retrieved from (database; reference book; website, etc.) ________________________________

Original Source Type (book; newspaper; magazine; website, etc.) _________________________

Key Words: ____________________________________________

What I learned from the source:

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

Main ideas in the source:

• ______________________________________________________

• ______________________________________________________

• ______________________________________________________

Questions I now have as a result of reading this essay/article:

• ______________________________________________________

• ______________________________________________________

• ______________________________________________________

Where I’m going to look next for answers to my questions:

• ______________________________________________________

• ______________________________________________________
**STOP and Process**

At this point in your research it is time to evaluate the information you have to date and see if you need to shift your focus or keep on moving in the direction you are headed. Answer the questions in the chart below thoughtfully!

<table>
<thead>
<tr>
<th>Questions</th>
<th>Thoughtful Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have enough information to answer your questions?</td>
<td></td>
</tr>
<tr>
<td>Is all of your information on topic?</td>
<td></td>
</tr>
<tr>
<td>☐ What perspectives or points of view have been included? Whose voice is missing?</td>
<td></td>
</tr>
<tr>
<td>What conclusions have you drawn?</td>
<td></td>
</tr>
<tr>
<td>What do you still need to find out?</td>
<td></td>
</tr>
<tr>
<td>Where will you look next for needed information?</td>
<td></td>
</tr>
</tbody>
</table>

Next Steps:
Your Research Journal

In an attempt to provide you with an authentic organizational and reflective tool, you will create and keep a journal of the work you do in this unit.

**What this journal should be:** a daily log organized in any way that fits your needs that tracks some or all of the following:

- Ideas you generate in the process of researching
- Next steps you need to take for the next class. This can be as simple as a reminder for the next class.
- Jargon (any new lingo) you’ve learned that is closely associated with your topic?
- Words/phrases you’ve already searched
- Questions you need answered
- Answers to your questions (your notes!)
- New sources or links that you would like to record for future use (perhaps with a brief note about each source)
- Anything else you feel is important to record during the research process

**What this journal shouldn’t be:** something you fill out the night before it is due. Remember, this is supposed to be an authentic tool for you to document all aspects of your research as it progresses. It is not meant to be a chore, so don’t make it one! 😊
**General Theme:** Communication Literacy  **Domain:** Oral Presentations  
**Components:** Elements of Good Oral Presentation

<table>
<thead>
<tr>
<th>Elements</th>
<th>Acceptable (2)</th>
<th>In Progress (1)</th>
<th>Unacceptable (0)</th>
<th>Evidence? How do I know?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Appropriate speaking style matches purpose &amp; audience. Establishes eye contact &amp; rapport with audience.</td>
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<tr>
<td>2. “Owns” information—uses media as a tool and not a crutch (qualify/justify own understanding)</td>
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<tr>
<td>3. Adapts volume, pace and language to fit audience &amp; purpose</td>
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<tr>
<td>4. Demonstrates professionalism: good posture, confidence, poise, appropriate dress</td>
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<td>5. Draws the audience into presentation with engaging/appropriate techniques which clearly state purpose of presentation</td>
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<tr>
<td>6. Presents information in logical, interesting sequence</td>
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<td>7. Concludes &amp; clearly highlights key elements/findings</td>
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<tr>
<td>8. Makes strategic use of digital media &amp; visual displays in presentations to enhance understanding &amp; add interest</td>
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<tr>
<td>9. Responds thoughtfully to diverse perspectives, qualifies their own views/understandings, etc.</td>
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<tr>
<td>10. <strong>Audience/Questions:</strong> Evaluates speakers’ reasoning, identifies any fallacious or distorted evidence by the use of effective questioning during others’ presentations.</td>
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</tr>
</tbody>
</table>

Points Earned: _____________ (20 points)

Comments:

Romas and Burch
RESOURCES

Online

NoodleTools (NoodleBib) - an online subscription tool paid for by PCSD for students to properly keep track of sources and generate entries for bibliographies, works cited lists, and references lists. Format choices include MLA, APA, and Chicago/Turabian.

Turnitin - an online subscription tool paid for by PCSD for all high school students to submit papers (by teacher and class); this tool serves as a plagiarism checker as well as an electronic portfolio; it also gives teachers the ability to assess and provide feedback electronically with use of several embedded grading tools such as QuickMarks, PeerMark, and rubrics. Teachers can use provided rubrics that align with the CCLS or create their own.

OWL at Purdue - The Online Writing Lab (OWL) at Purdue University provides resources and instructional materials to support students and teachers at all stages of the research and writing process. Highly recommended. 
https://owl.english.purdue.edu/owl/

Print


GLOSSARY

The Research Process

**Short research project**: “An investigation intended to address a narrowly tailored query in a brief period of time, as in a few class periods or a week of instructional time” (Council).

**Sustained research project**: “An investigation intended to address a relatively expansive query using several sources over an extended period of time, as in a few weeks of instructional time” (Council).

**Inquiry-based research**: A student-centered, teacher-facilitated approach that begins with a question as opposed to a topic; a question-driven approach to research.

**Research topic**: A subject for student research; may be teacher-assigned or student-selected; may be refined throughout the research process.

Examples: lightning, fermentation, slug slime, bubonic plague

**Research question**: A query designed to initiate the research process. This will be teacher-facilitated to varying degrees, depending upon the level of study, and always centered on student learning. The key to a research question is that answering it requires the student to consult sources other than himself or herself for the answer.

Example (Narrow): How many times does lightning strike the earth every minute?

Examples (Broad): How sticky is slug slime?

What abiotic and biotic factors affect fermentation?

How did trade contribute to the spread of the plague?
Subtopics: Divisions of study that contribute to addressing the research topic. When subtopics are presented together, they serve to provide an organized and comprehensive approach to the research topic.

Example: lightning strikes in the southern hemisphere versus the Arctic

Example: trade routes over land and sea as contributing factors in the spread of the bubonic plague

Example: temperature and fermentation OR bacteria and fermentation

By creating and addressing these subtopics, a writer/researcher provides supporting data to his or her reader in an organized and comprehensive fashion.

Sources

Primary source: An original document or object from the time period under study or a first-hand account. In historical research, primary sources may include artifacts, speeches, photographs, government documents, eyewitness accounts, and creative works. In science, these may include artifacts, laboratory data, and reports of new research written by the scientist who conducted it. “Primary sources are characterized by their content regardless of whether or not they are in their original format” (“Primary”). Compare secondary source.

Secondary source: “Any published or unpublished work that is one step removed from the original source;” a work which interprets or evaluates primary source materials, “for example, a review, critical analysis, second-person account, or biographical or historical study” (Reitz). Compare primary source.

Print source: A published or unpublished source in an ink-on-paper physical format. Examples include books, magazines, journals, newspapers, government documents, reports, and pamphlets. Compare electronic source.

Electronic source: A digital source made available via the Internet. It may be a print source which has been digitized or an electronic publication with no print counterpart. Examples include eBooks, online journals, database articles, websites, and digital videos. Compare print source.

Born digital: When used to describe a source, it refers to one which originated in digital form, as opposed to a print source which was digitally reformatted for online access.
Database: A searchable file of "digitized information (bibliographic records, abstracts, full-text documents," etc.) “...consisting of records of uniform format organized for ease and speed of search and retrieval” (Reitz). Library database content typically includes text from reference book publishers, newspapers, magazines, and journals but may also include images, streamed video, and other content types. Content is often leased from publishers to “database vendors that provide electronic access” (Reitz) to subscribing institutions.

Scholarly journal: “A periodical devoted to disseminating original research and commentary on current developments in a specific discipline...or field of study” (Reitz). Most scholarly journals are peer-reviewed “and are written by academic researchers rather than by journalists” (Hacker).

Peer review: A selection process used by most scholarly journals in which subject area experts examine submissions to determine if they are of sufficient quality and relevance to be included in the publication.

Criteria for Evaluating Sources

Accuracy: Degree of correctness. “The accuracy of a statement is verified by consulting other sources that provide the same information” (Reitz).

Audience: The author’s intended readership, such as students, general readers, or scholars. Audience may be indicated by the topic, publisher, vocabulary, etc.

Authority: “The knowledge and experience that qualifies a person to write or speak as an expert on a given subject. In the academic community, authority is indicated by credentials, previously published works on the subject, institutional affiliation, awards, etc." (Reitz).

Credibility: “Worthy of trust or belief” (Reitz). Signs of credibility may include reputation of the publisher or sponsor, authority of authors, and transparency of purpose.

Currency: Recent, up-to-date. “The extent to which the content of a document or source reflects the existing state of knowledge about the subject” (Reitz).

Point of View: The perspective of the author on the subject about which he or she is writing. Indicators of point of view include direct statements of opinion and word choices from which attitudes or judgments can be inferred.
**Purpose:** The author’s reason for writing the work. An author may write to inform, entertain, or persuade.

**Relevance:** Degree to which the source is “applicable to…the subject of the query” (Reitz).

**Usefulness:** Degree to which the source fulfills the information need.

**Documenting Sources**

**Plagiarism:** “The uncredited use (both intentional and unintentional) of somebody else’s words or ideas” (Purdue OWL). Please see the MHS or SHS Parent/Student Handbook for information about Pittsford’s procedures for addressing plagiarism at the high school level.

**Bibliography:** A comprehensive listing of any sources consulted during the research of a topic, question, or problem.

**MLA format or style:** The formatting or style guidelines for presenting a paper (research or otherwise) standardized by the Modern Language Association. These guidelines include margin settings, heading format, how to include sources, etc. These formatting guidelines are provided in detail in the *MLA Handbook*. Another useful source of information for MLA format and style is [http://owl.english.purdue.edu/owl/resource/747/01/](http://owl.english.purdue.edu/owl/resource/747/01/).

**Cite (v.):** The act of giving credit to the sources used within the research paper. All information taken from sources and used in your research paper must be cited.

**Works cited list:** A reference list appearing as the last page of a research paper listing the sources cited within the paper.

**Works cited list entry:** Specific information that credits the source for each reference used in the paper. This can look different depending on the type of source (e.g., website, database article, print source, etc.) from which it is acquired.


Parenthetical Citation: So that the flow of the writer’s language is not disrupted by providing source information, a writer can present this documentation parenthetically.

Example: There are no more than seven flavors of gum provided by street vendors in Santa Barbara (Rogers 93).

In this way, the reader may choose whether to look further into the writer’s source or keep reading. It is important to note that more complete information about the source, in this case “Rogers,” is provided on the works cited list.

In-text Citation: Sometimes, a writer may choose to include the source’s name and/or credentials within the text of his or her writing.

Example: According to Stephanie Rogers of the Southern California Urban Planning Board on page 93 of her book, Selling Our Streets, there are no more than seven flavors of gum provided by street vendors in Santa Barbara.

This can be stylistically sophisticated, but will become tiresome for the reader if overused. It is important to remember that even when a writer uses in-text citations, he or she must provide corresponding entries in the works cited list.

Writing the Paper

Thesis: A statement that defines and limits the scope of the paper. It is a controlling idea that offers an opinion that the writer must defend or prove throughout the paper, using appropriate and convincing evidence.

Example for argument paper: While The New Deal provided important legislation for getting out of The Great Depression, it was America’s involvement in World War II that ultimately brought us back into economic prosperity.

Example for explanatory/informational paper: The New Deal and America’s involvement in World War II were factors that affected the country’s post-Depression economy.

Evidence: Support for claims, including facts, figures, details, quotations, or other sources of data and information that provide support for claims or an analysis and that can be evaluated by others; should derive from an appropriate source.
Quotation (Quote): Words or phrases taken directly (verbatim) from a source; used to further develop and support the thesis statement; must be cited according to MLA format (or teacher-preferred documentation style).

Paraphrasing: Involves restating information (written or spoken) in your own words. You must reword all of the material, not just change a few words. The idea(s) still belong to someone else, so you must give him or her credit, even though you rewrote the information.

Summarizing: Usually much briefer than paraphrasing. When you summarize, you emphasize and rewrite the main point(s) of the source.

Note: With paraphrasing and summarizing, you must clearly identify (cite) the works of others to acknowledge their contributions and to differentiate them from your own thoughts and contributions.

Claim: A position put forth in an argument.

Counterclaim: A statement of opposition or contrast to a claim; an antithesis.

Concession: A point or idea that one grants as valid, even if it is not consistent with his or her claim.

Refutation: An assertion of proof that a counterclaim is false or invalid.
Bibliography


"Primary Sources at Yale." *Yale Collections Collaborative*. Yale University, 2008. Web. 6 June 2014.