# Core Research
# Research and the CCLS


**October 25, 2013**

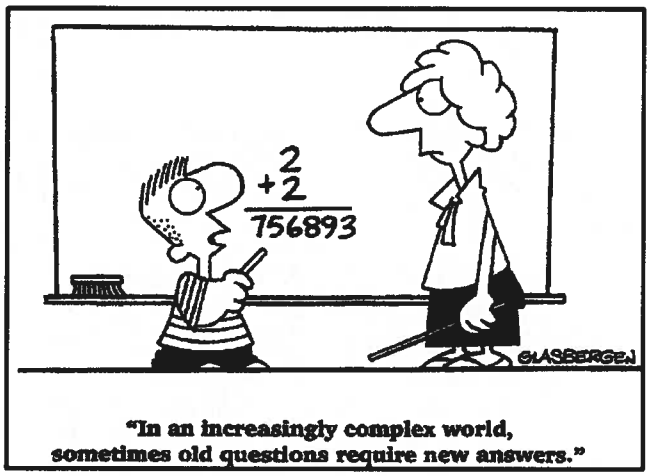
**Presented by**


**OCM BOCES Instructional Support**
**Curriculum, Instruction and Assessment**
**Network Team**
**School Library System**


OCMBOCES

# Agenda

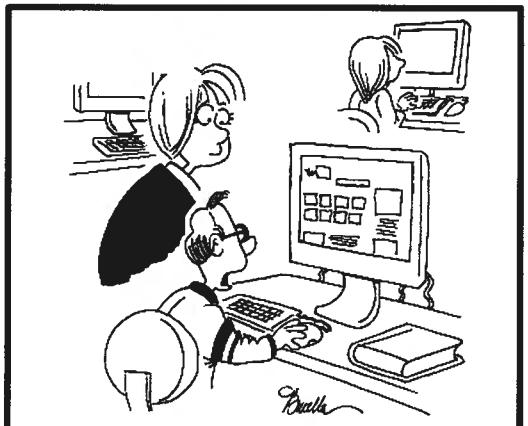
| | |
|---|---|
| 8:00-8:30 | Registration |
| 8:30-9:15 | Overview |
| 9:15-9:30 | Break |
| 9:30-11:30 | Split into grade level strands |
| 11:30-12:30 | Lunch |
| 12:30-2:30 | Continue grade level strands |




**"In an increasingly complex world, sometimes old questions require new answers."**

# Outcomes

- Identify the components of a Common Core-aligned inquiry and research process.
- Explain how a Common Core-aligned research project emphasizes questioning, inquiry, and deepening and explaining understanding rather than defending a position.
- Understand that inquiry and research are iterative, cyclical processes.
- Have the opportunity to develop a new research plan or refine an existing research plan to align with the CCLS



"It's not your traditional report. I've done it in the form of a YouTube video.

Just ASK's
# Making the Common Core Come Alive!
Volume I, Issue I

Heather Clayton Kwit

Heather, the author of *Making the Common Core Come Alive!* is the principal of Mendon Center Elementary School in Pittsford Central School District, New York. She is also a co-author of *Creating a Culture for Learning* published by Just ASK.

In This Issue



**Mind Shift One**
The goal of curriculum should not be the coverage of content, but rather the discovery of content.

## Common Core Mind Shifts

The **Common Core State Standards** initiative has the potential to cause some of the most influential changes in teaching and learning our country has ever experienced. The purpose of this monthly e-newsletter is to explore, from the perspectives of administrators, teachers, parents, and students, strategies for the implementation of the **Common Core State Standards** in ways that lead to those changes.

While much has been written about the instructional shifts embedded in the standards, little has been written about the mind shifts that need to occur to successfully implement these standards that raise the bar for our students in terms of college and career readiness. Educators must change their thinking about how they design curriculum, plan instruction, choose resources, deliver lessons, respond to learners, and use evidence to inform further teaching. Administrators will need to collect evidence about teaching and learning that looks different from previously collected data, and parents will be challenged to support their children's learning in different ways. Students must now take more responsibility for their own learning.

In this, the first issue of ***Making the Common Core Come Alive!***, we identify and reflect on **Mind Shifts** that are essential for the successful implementation of this important work.

**The goal of curriculum should not be the coverage of content, but rather the discovery of content.**

The **Common Core State Standards** (**Common Core**) provide districts with a roadmap, a clear set of shared goals, and expectations for what knowledge and skills students need in order to achieve and be successful in college and career. While the standards dictate what students should learn, they do not outline how the content should be taught. Districts, have the important job of deconstructing these standards and making decisions around how they will be met.

Traditionally, curriculum has been developed around lists of major topics to be covered in certain subject areas. As teachers cover each topic, it is checked off of the list and the next topic is presented. Students are told what's important about the content to be learned, and do far less construction of their own thinking about content.

What the **Common Core** has done for us has broadened our view of what curriculum should accomplish for students. If done well, the **Common Core** will elevate our teaching to new heights, and emphasize the construction of meaning, while deepening our understanding of our students. What is necessary for this to happen, is a shift in how curriculum is designed and implemented. Instead of writing a curriculum around content mastery, it should instead be written around the performance desired from our students as a result of their investigations into a variety of concepts, skills, and strategies.

The **Common Core** addresses individual grade levels for Kindergarten through eighth grade, and two year bands for ninth through twelfth grade, in order to allow flexibility in the design of courses. Furthermore, each set of standards is intentionally written to include coherence between skills and a progression of difficulty as students move through each grade level. In this day and age, when designing curriculum, a focus on connected deep understandings versus content coverage is essential. As Robert

Just ASK consultants are ready to help you develop new or refine old units to align with the **Common Core State Standards**. For more information contact us at www.justaskpublications.com/ccparty

Access unit templates and other copyright-free tools in the Just ASK Resource Center at www.justaskpublications.com/ccss-sbe.htm

**Mind Shift Two**
A deep understanding of the content to be taught is paramount. (Or, we cannot teach what we do not understand.)

Marzano states, "A guaranteed and viable curriculum is the number one school level factor impacting student achievement."

Points to ponder when developing a curriculum based on the discovery of content in lieu of the *coverage* of content are as follows:

- What authentic, performance based assessments are driving the learning?
- Do the assessments emphasize critical thinking and the transfer of knowledge?
- Do the assessments emphasize meaning making and deep understanding?
- Is the curriculum written with a focus on larger, overarching concepts?
- Have you focused these concepts with essential questions?
- Does the curriculum align vertically? Is there a careful consideration of pre-requisite skills and knowledge?
- Is student engagement central to the teaching and learning?
- Has there been an emphasis placed on 21st century skills such as critical thinking, problem solving, creativity, innovation, collaboration, and research?

**A deep understanding of the content to be taught is paramount. (Or, we cannot teach what we do not understand.)**
In order to effectively plan lessons, deliver high quality instruction, and analyze student progress, we need to have a deep and flexible understanding of the content we teach. With this deep understanding comes the ability to anticipate students' misconceptions, see the linkages between ideas, and make explicit connections to real life.

The **Common Core State Standards** are rich and complex, and in order for teachers to transform this knowledge in a way that is accessible to all learners, they themselves must have a solid understanding of what is to be taught. With this understanding will come the ability to represent and communicate the content in meaningful ways for all students.

The optimal way for teachers to build this deep content knowledge is through professional learning over a period of time. Teachers will benefit greatly by learning from experts and research, and by collaborating with colleagues.

**Mind Shift Three**
In our classrooms, it is the students' voices, not the teachers', that are heard.

**In our classrooms, it is the students' voices, not the teachers', that are heard.**
Not only do teachers need to be skilled at questioning and leading meaningful discussions, but students need to assume responsibility for asking important questions and initiating rich conversations as well. What the standards demand from our students is a greater focus on metacognitive activities that encourage them to reflect and talk about their own understandings and beliefs, while listening to the understandings, reactions, and motivations of others. It can be as simple as using "Why" questions or asking students what they notice about something that can help to propel students' conversations forward.

The **Common Core** demands that our students continually gather evidence, make generalizations, apply concepts, and represent their thinking in different ways. Students are expected to actively construct meaning from content, a process which is strengthened through student dialogue. Through meaningful, planned time to talk, students are given the opportunity to reflect on their understandings and confusion, while elaborating on their own ideas and building on others' thinking using evidence from their learning.


Teachers in Greece Central School District, New York, celebrate the development, implementation, and peer review of their units.

**Mind Shift Four**
We are preparing our students to do the learning without us.

**Mind Shift Five**
We are educating our children for an unknown future.

**We are preparing our students to do the learning without us.**

By design, the **Common Core State Standards** emphasize proficiency and meaning making. Students are expected to negotiate texts and tasks of increasing complexity more than ever before. Our students need to be taught persistence and the importance of stamina. The ability to apply strategies, construct arguments, create representations, persevere when solving problems, employ technology, critique, and understand the perspectives of others, will come from the sophisticated work that educators do in preparing students to be independent.

The gift of multiple opportunities to "swim in the deep end," will help our students to employ strategies that will empower them to be successful. For instance, if given frequent experiences reading challenging texts closely, students will be able to encounter new texts with confidence. They will know the importance of needing to read slower while building a deep understanding. It is quality instructional experiences that will help turn students' strategies into skills. These skills can then be translated into new or novel situations, without the teacher needing to guide the work.

**We are educating our children for an unknown future.**

The **Common Core State Standards** are robust, rigorous, and relevant in the real world. As the change agents in the education of our children, we need to push ourselves to consider a new direction for our teaching and its impact on our children's tomorrow. We are no longer educating for today, but rather preparing our students for a future where

## Web Resources

www.corestandards.org
The website of the initiative: read the **Common Core's** mission statement, download the standards, and access the informative appendices.

www.corestandards.org/about-the-standards/myths-vs-facts
Myths about the **Common Core**, along with the facts to dispel those myths are available here.

engageny.org/resource/common-core-shifts
Learn more about the six instructional shifts needed for the effective implementation of the **Common Core**.

www.youtube.com/user/TheHuntInstitute
View short, accessible videos that explain the **Common Core State Standards**.

**Mind Shift Six**
We have a responsibility to help each student reach higher.

**Mind Shift Seven**
We can't ignore the evidence before us.

they will need to think, innovate, collaborate, problem solve, and compete globally. We need to embrace our existing technologies and see their potential. Along with teaching social responsibility that goes along with the use of these tools, we need to teach our children how to navigate and evaluate information online.

**We have a responsibility to help each student reach higher.**

Great respect should be awarded for the complexity of the art of teaching. In order to move our students to rigorous standards, we need an even more extensive repertoire of instructional strategies than ever before. After all, any given classroom can have a variety of levels and magnitude of student needs. We have a responsibility to make the learning accessible to our students, and to find ways to measure, support, and extend each student's growth.

In order to do this, the **Common Core** has provided us with clear standards, or outcomes, to anchor our units and lessons. These standards also provide learning benchmarks and a roadmap of the necessary skills required for all students, including those with disabilities, in poverty, or from non English speaking homes. By understanding this clear progression of skills over time, we are better able to not only recognize important pre-requisite skills to help us support our fragile learners, but to identify complex learning goals that reach above and beyond for our accelerated learners.

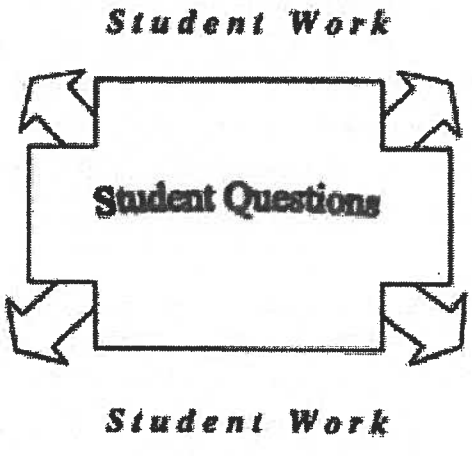
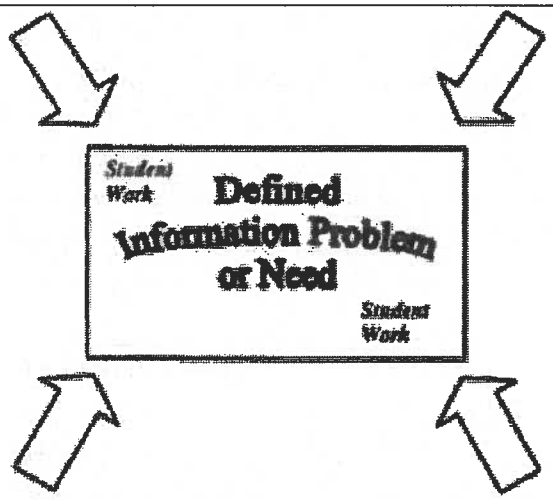
**We can't ignore the evidence before us.**

The standards themselves were created using an extensive body of evidence. It is this same evidence that will guide our teaching of students. Research indicates that the use of formative assessment to guide instruction causes great gains in student achievement. At the outset of any unit or lesson should be the identification of evidence that the students' will have successfully met expectations.

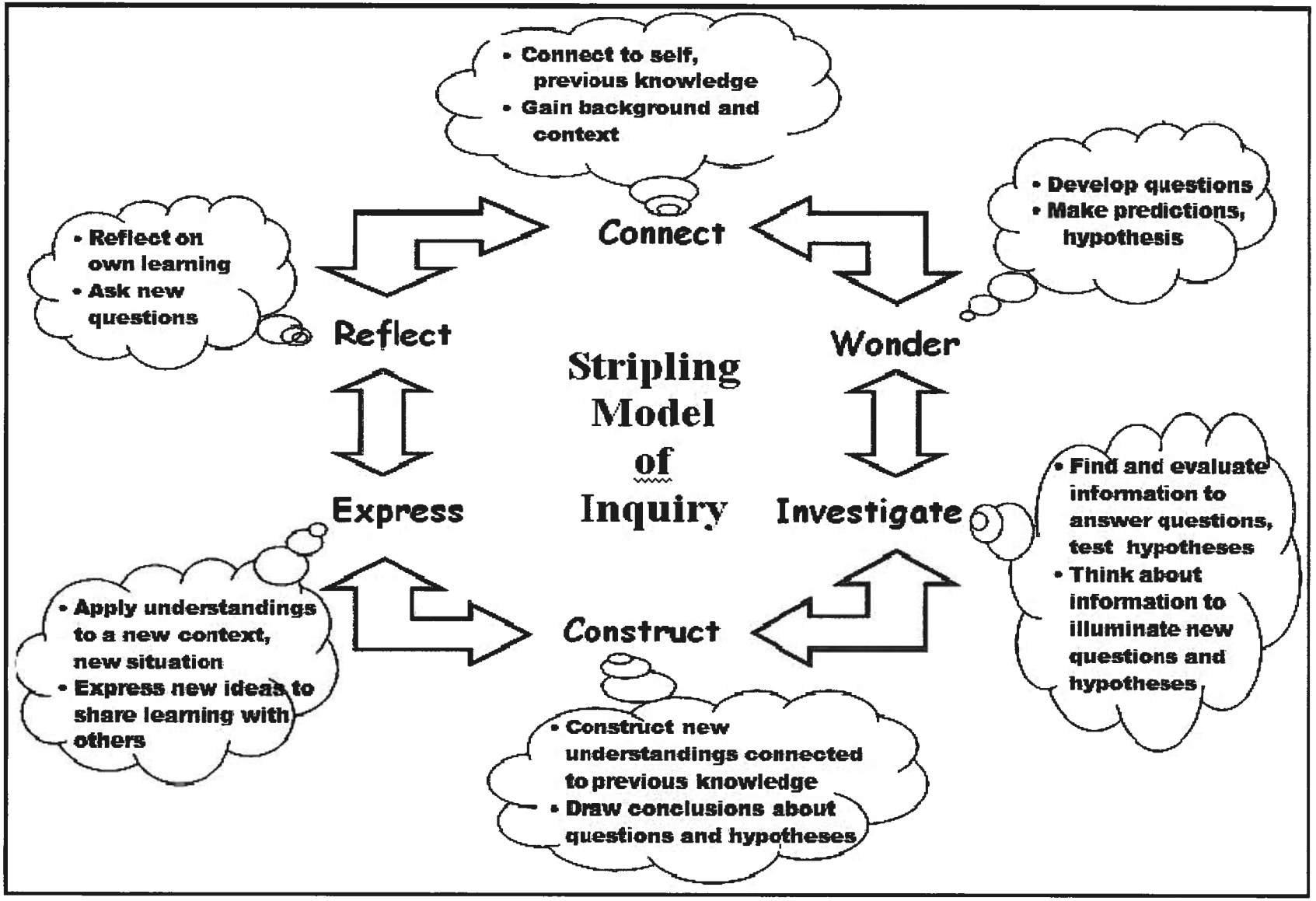
Standards also set the benchmark for the quality of student work. In order for work to be meeting standards, it must demonstrate the rigor and expectations set forth in the **Common Core**. In the Appendices of the **Common Core** document, the authors provide specificity around the types and demands of tasks that will provide evidence of students having reached standards.

In conclusion, we have the innate ability to change our mindset if it no longer helps us accomplish our goals. Our current beliefs are grounded in the prior knowledge we've gained through our administrative and teaching experiences, our lives as students, and our collaboration with educators. Our beliefs impact all that we do, how we act and react, and the potential we see in others. When we can successfully shift our mindset, we are ready to form new lines of thinking and abandon old habits. By doing so, we have successfully positioned ourselves to do the work required by the **Common Core**.

# Essential Differences Between Inquiry and Information Problem Solving

| INQUIRY | INFORMATION PROBLEM SOLVING |
|---|---|
| Attitude of questioning and reflecting with cognition | Cognition |
| Start with question | Start with problem, information need |
| Investigation is open; student pursuit of answers wherever they lead | Investigation is closed; student pursuit of answers to problem that remain the same |
| Center is within student; the goal is to develop new understanding within each student | Center is outside student; the goal is to find answers or solutions to external problem |
| Answers often involve creative building of ideas | Answers often involve selecting and sorting of ideas |
| Messy, recursive | Planned, linear |
| Open-ended, leads to future questions, experiences | Closed-ended, results in "final product" or solution |
|  |  |

From Barbara K. Stripling "Inquiry-Based Learning." *Curriculum Connections through the Library*, edited by Barbara K. Stripling and Sandra Hughes-Hassell, 6. Westport, CT: Libraries Unlimited, 2003.




From Barbara K. Stripling "Inquiry-Based Learning." Curriculum Connections through the Library

| Inquiry Process | Inquiry Skills and Strategies |
|---|---|
| **Connect:** ***Initiating Inquiry*** | • Connect to own experience<br>• Connect to ideas of others<br>• Connect to previous knowledge and verify its accuracy<br>• Gain background and context |
| **Wonder:** ***Generating Questions*** | • Develop wonder question that will lead to new understandings about key ideas<br>• Frame questions using different levels of thinking with a push to higher levels (e.g. asking "Why?" and "How?" in addition to asking "What?")<br>• Develop question to lead to active investigation and decision-making not passive information gathering<br>• Make predictions and hypotheses based on prior knowledge and background information. Predict answers to wonder questions and what type of information will answer the questions |
| **Investigate:** ***Gathering Information*** | • Plan investigation and develop search strategies to find relevant, high-quality information<br>• Identify evaluate and use multiple sources of information<br>• Find and evaluate information to answer questions.<br>– Paraphrase, summarize, interpret and evaluate information. Find and evaluate main ideas and supporting and conflicting evidence. Select information to keep or discard.<br>– Consider author's point of view.<br>• Take notes using a variety of formats<br>• Use information and technology responsibly<br>• Think about the information to formulate new question, hypotheses |
| **Construct:** ***Deepening Understanding and Finalizing Inquiry*** | • Organize information to detect relationships among ideas<br>• Draw inferences justified by the evidence<br>• Think about the information to test predictions and hypotheses<br>– Compare evidence and pattern in data<br>– Use evidence to construct reasonable explanations<br>• Recognize authors' points of view and consider alternative perspectives<br>• Construct clear and appropriate conclusions based on evidence<br>• Connect new understandings to previous knowledge |
| **Express:** ***Developing and Communicating Evidence-Based Perspectives*** | • Apply new understandings to new context and new situation – create product to demonstrate new understanding<br>• Select format based on needs of topic and audience<br>• Communicate clearly both main and supporting points in product<br>• Use the writing process to develop product<br>• Evaluate and revise product based on self-assessment and feedback from others<br>• Express new ideas or take action to share learning with others |
| **Reflect** | • Set high and clear standards for own work<br>• Reflect with others<br>• Use criteria to assess own process and product throughout the learning. Make revisions when necessary<br>• Reflect on won learning to be clear about the change in understanding<br>• Ask new questions, set new goals for learning |

Adapted from Barbara K. Stripling "Inquiry-Based Learning." Curriculum Connections through the Library, edited by Barbara K. Stripling and Sandra Hughes-Hassell, 10-17. Westport, CT: Libraries Unlimited, 2003

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# Shift 5

## WRITING FROM SOURCES

| | | |
|---|---|---|
| **Subshift - 5A** | Work with sources | Students gather, assess, synthesize, integrate, analyze sources |
| **Subshift -5B** | Grapple with complex text and content; leverage academic vocabulary | Students apply academic vocabulary and content knowledge they gained through other shifts, but also through gathering, assessing, and synthesizing sources. Research is an integrated process which combines the reading, writing, and language standards. |
| **Subshift -5C** | Emphasize questioning, Inquiry, and explaining understanding rather than defense | Students engage in an iterative and cyclical inquiry process |
| **Subshift -5D** | Follow inquiry process: questions, sources, information, scope and plan→product | Students' questions lead them to the sources, which lead to information, which lead to the scope of the project, which may lead back to the questions, and so on. This process is iterative and results in a rigorous, grade level appropriate product. |
| **Subshift - 5E** | Use technology and other minds | This is the 21st century, and the internet is a research tool, but students do more than a simple Google search; they collaborate productively with other students and adults. |
| **Subshift -5D** | Repeat | Research opportunities should be happening throughout the school year and take varying forms, including (but not limited to) short and more sustained research projects. In secondary, research should happen early and often. |

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# K-5 English Language Arts | Writing

## RESEARCH TO BUILD AND PRESENT KNOWLEDGE

| | Kindergarten | Grade 1 | Grade 2 |
|---|---|---|---|
| **Writing Standard 7** | Participate in shared research & writing projects (e.g., explore a number of books by a favorite author & express opinions about them). | Participate in shared research and writing projects (e.g., explore a number of **"how-to" books on a given topic and use them to write a sequence of instructions).** | Participate in shared research and writing projects (e.g., **read a number of books on a single topic to produce a report; record science observations).** |
| **W8** | With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. | With guidance & support from adults, recall information from experiences or gather information from provided sources to answer a question. | **Recall information from experiences or gather information from provided sources to answer a question.** |
| **W9** | (Begins in grade 4) | (Begins in grade 4) | (Begins in grade 4) |
| | **Grade 3** | **Grade 4** | **Grade 5** |
| **W7** | Conduct short research projects that build knowledge about a topic. | Conduct short research projects that build knowledge **through investigation of different aspects of** a topic. | Conduct short research projects that **use several sources** to build knowledge through investigation of different aspects of a topic. |
| **W8** | Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. | Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and **categorize information, and provide a list of sources.** | Recall relevant information from experiences or gather relevant information from print & digital sources; **summarize or paraphrase information in notes and finished work**, & provide list of sources. |
| **W9** | (Begins in grade 4) | Draw evidence from literary or informational texts to support analysis, reflection, & research. a. Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). b. Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). | Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply **grade 5** Reading standards to literature **(e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]").** b. Apply grade 5 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, **identifying which reasons and evidence support which point[s]").** |

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# 6-8 English Language Arts | Writing

## RESEARCH TO BUILD AND PRESENT KNOWLEDGE

| | Grade 6 | Grade 7 | Grade 8 |
|---|---|---|---|
| **Writing Standard 7** | Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. | Conduct short research projects to answer a question, drawing on several sources and **generating additional related, focused questions for further research and investigation.** | Conduct short research projects to answer a question **(including a self-generated question)**, drawing on several sources and generating additional related, focused questions **that allow for multiple avenues of exploration.** |
| **Writing Standard 8** | Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. | Gather relevant information from multiple print and digital sources, **using search terms effectively;** assess the credibility **and accuracy** of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and **following a standard format for citation.** | Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. |
| **Writing Standard 9** | Draw evidence from literary or informational texts to support analysis, reflection, and research.<br>a. Apply grade 6 Reading standards to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics").<br>b. Apply grade 6 Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). | Draw evidence from literary or informational texts to support analysis, reflection, and research.<br>a. Apply **grade 7** Reading standards to literature (e.g., "Compare and contrast **a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").**<br>b. Apply **grade 7** Reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, **assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").** | Draw evidence from literary or informational texts to support analysis, reflection, and research.<br>a. Apply **grade 8** Reading standards to literature (e.g., **"Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new").**<br>b. Apply **grade 8** Reading standards to literary nonfiction (e.g., **"Delineate** and evaluate the argument & specific claims in a text, assessing whether the reasoning is sound & the evidence is relevant & sufficient; **recognize when irrelevant evidence is introduced").** |

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# 9-12 English Language Arts | Writing

## RESEARCH TO BUILD AND PRESENT KNOWLEDGE

| | Grades 9-10 | Grades 11-12 |
|---|---|---|
| **Writing Standard 7** | · Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem.<br>· Narrow or broaden the inquiry when appropriate.<br>· Synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. | |
| **Writing Standard 8** | · Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively.<br>· Assess the usefulness of each source in answering the research question.<br>· Integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. | · Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively.<br>· **Assess the strengths and limitations** of each source **in terms of the task, purpose, and audience.**<br>· Integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism **and overreliance on any one source** and following a standard format for citation. |
| **Writing Standard 9** | · Draw evidence from literary or informational texts to support analysis, reflection, and research.<br>· Apply *grades 9–10 Reading Standards* to literature (e.g., "Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]").<br>· Apply *grades 9–10 Reading Standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning"). | · Draw evidence from literary or informational texts to support analysis, reflection, and research.<br>· **Apply *grades 11–12 Reading Standards* to literature (e.g., "Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics").**<br>· **Apply *grades 11–12 Reading Standards* to literary nonfiction (e.g., "Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., *The Federalist*, presidential addresses]").** |

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# Writing Standards | Graphic

## RESEARCH AND WRITING PROCESS