

Common Core State Standards: Differentiated Instruction, Technology, and Literacy = The 21st Century Classroom

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AGENDA FOR TODAY

College and Career Readiness Skills and the 21st Century Skills

The Role of Essential Questions and Inquiry in the Common Core

Strategies that promote student centered learning and inquiry to develop career and college readiness in students.

Creating a Needs Analysis for the transition to Common Core State Standards

SOME GUIDING QUESTIONS (ESSENTIAL QUESTIONS)

Why does inquiry matter to the development of critical thinking skills?

How do we create teaching and learning experiences that build 21st century skills?

What do we already know about Common Core State Standards?

THINK-PAIR-SHARE ACTIVITY

Directions: Turn to a neighbor (or 2) and discuss what you already know about CCSS for about 2 minutes.

What do we know about CCSS? The 21st Century 3 Rs

Designed to be **robust, relevant,** and **rigorous.**

Robust: higher level thinking

Relevant: engagement, student involvement, brain-based research

Rigorous: high expectations, critical thinking, challenging thinking

WHAT IS NOT INCLUDED:

- Prescribe specific instructional strategies and/or curriculum.
- Interventions for students who are performing below grade level or who have special needs.
- Support for English Language Learners (ELL)

Why were Common Core State Standards created and how do they impact today's classrooms?

Why were Common Core State Standards created and how do they impact today's classrooms?


- Intended to create greater consistency for student performance and expectations among states.
- NAEP data indicates that the majority of students are not college and career ready.

21st Century Skills

- PROBLEM SOLVING
- TEAM WORK
- ENTREPRENEURSHIP
- RESEARCH
- CRITICAL THINKING

CCSS FRAMEWORK

Your curriculum and assessment are the “guts” and CCSS is the overall design.



Planning for Implementation

- Literacy Plan
- Technology Plan
- Long-Range Articulated Professional Development Plan

		K-5	6-12
Strands		English Language Arts	English Language Arts Library in History/Social Studies, Science, & Technical Subjects
	Standards	Anchor Standard: Reading Key Ideas and Details; Grades 6-12. Standard 2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.	
Grade-Specific Standards			
Reading, Standard 2			
	Grade	Literature	Informational Text
	6	Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgment.
	7	Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
	8	Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.

FIGURE 5.1: Reading the CCSS with an example.
From Supporting Students in a Time of Core Standards: English Language Arts, Grades 6-8 by Tonya Perry, with Rebecca Morley. ©2011 National Council of Teachers of English.

Mathematics Example

Strand 1: Symbolic Expression

The statement of enduring understanding across all grades states **WHY** the learning is important.

Different learning targets show a progression from one grade span to the next grade span.

Symbolic Expression (SE): The use and manipulation of symbols and expressions provide a variety of representations for solving problems and expressing mathematical concepts, relationships, and reasoning.

[6-8] Elementary School Learning Targets	[9-12] Middle School Learning Targets	[9-12] High School Learning Targets
<p>1.SE.1 Use equations and expressions involving basic operations to represent a given context.</p> <ul style="list-style-type: none"> Represent numerical relationships using combinations of symbols ($+$, $-$, \times, \div) and numbers to form expressions and equations. Solve for unknowns in simple number binary number sentences (e.g., $3 + \square = 4 + 7$). Write equations showing inverse operations and related operations (e.g., addition-multiplication). 	<p>1.MS.1 Represent relationships and interpret expressions and equations in terms of a given context for determining an unknown value.</p> <ul style="list-style-type: none"> Represent mathematical relationships symbolically and solve for any variable for 1st degree equations and for common formulas (literal equations). Explain how to manipulate an algebraic expression to create equivalent expressions and provide step-by-step explanations and justifications. 	<p>1.HS.1 Represent relationships and interpret expressions and equations in terms of a given context (including complex and families of functions) for determining unknown values (including two or more variables).</p> <ul style="list-style-type: none"> Represent and interpret multi-step problems. Represent complex numbers and vectors. Demonstrate the relationship between systems of equations and matrix representations. Represent the relationship between functions and modeling.

Activity: As You Read the Standards

Why is it structured in this way?

What does the language suggest?

What do you learn about the Standards in the introduction?

What information and why is the information included in the appendices?

<http://www.corestandards.org/>

Top Differentiation Strategies

<ul style="list-style-type: none"> • Pre-assessment • Curriculum Compacting • 5 Most Difficult First • Flexible Grouping • Questioning 	<ul style="list-style-type: none"> • Open-Ended Tasks • Tiering • Learning Contracts • Choice Boards • Independent Projects
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Let's look at an ELA standard and how it is broken down. Where would we differentiate in developing these skills?

W.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

W.SECOND GRADE: 1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.

Let's Try Another....

Third Grade Mathematics

Operations and Algebraic Thinking 3.OA

Represent and solve problems involving multiplication and division.

- Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5×7 .*

Looking at the Structure and Hierarchy of CCSS

Do the competencies have to be taught in the order presented in the document?

Answer: No! The competencies are a guideline for ongoing instruction and are NOT intended to be units, activities, or skills. The competencies are NOT intended to be a grocery list of content skills that are taught and then checked off.

We are going to look at the standards and identify the technology integration

- They (students) use technology and digital media strategically and capably.
- Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.



FROM CHICAGO:

Global Citizenship Experience

www.globalcitizenshipexperience.com

The screenshot shows the homepage of the Global Citizenship Experience website. It features a navigation menu with options like 'Home', 'About Us', 'Programs', and 'Contact Us'. The main content area is titled 'Global Citizenship Experience - A New Model for Learning' and includes a photo of a student and a list of 'GCE Values (our Way)'.

FROM NEW ZEALAND:

pesnuia.blogspot.com

The screenshot shows a Blogger blog post from 'pesnuia.blogspot.com' dated Monday, May 7, 2012. The post is titled 'All About Pesnuia' and discusses the 'Global Citizenship Experience' program. It includes a photo of a student and a list of 'GCE Values (our Way)'.

Connection to CCSS

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Using technology to develop writing skills is one of the writing anchor standards.

Connections to CCSS

6 Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

7 Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

8 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

Connections to CCSS

9-10

Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

11-12

Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Speaking and Listening

College and Career Readiness Anchor Standards for Speaking and Listening

The grades 6-12 standards on the following page define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below to outline the 12-18 grade anchor standards for necessary components, the formal speaking/listening standards, the other providing additional specificity that together define the skills and understandings that all students must demonstrate.

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and details.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. The Internet has accelerated the speed at which connections between speaking, listening, reading, and writing can be made, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adaptable in response to change.


There are so many fools out there...

- CREATE A TECHNOLOGY PLAN
- Technology Director (Look at the Private Sector)
- STEM grants
- Wiring for Power
- Netbooks, IPADS, Laptops

Technology Plan

- Think-Pair-Share
- How does technology impact instruction?
- How does your school use technology as a means to support and enhance teaching and learning?

- Learning with the Teachers and Students
- Our Classrooms Need to Mirror the Paradigm Shift of the 21st Century



A cartoon illustration of a bird hatching from an egg. The bird is looking surprised and has its beak open. The text next to it says "OH WOW! PARADIGM SHIFT!". The signature "THOMAS" is visible in the bottom right corner of the cartoon.

WHAT ABOUT LITERACY?

Literacy Plan

- What is the literacy plan for your school?
- How does your literacy plan develop students' skills in reading, writing, speaking, listening, and language in all content areas?
- How does your school address textual complexity?
- How do teachers address literacy skills in each content area?

Creating a Literacy Plan

Whole School Approach to Literacy

Strategies Log

Class / Year Group: _____

Date Started: _____ Date Finished: _____

Strategy/strategies being used:

Outline of Strategy/Strategies:

Template for Literacy Plan Implementation

Strategy	Activities	Objectives	When?	By whom?	Resources required	How we measure	Review date

What we often see in classrooms

- Extensive copying from blackboards
- Unchallenged comprehension work (CCSS-Textual Complexity)
- Students encounter a minimal range of texts
- Reading is limited
- Writing is limited
- Reference materials
- Worksheets
- Speaking and listening opportunities are limited

School Literacy Plan

- The development of the school literacy plan is an opportunity to address these practices.
- More effectively use data to create differentiated instruction experiences for diverse readers.

START DATE	PLANNING TOPIC AND TASKS	COMPLETION DATE
	Select committee members	
	Schedule meeting times and places	
	Meet and lay groundwork	
	Develop mission statement	
	Assess current technology	
	Conduct needs assessment	
	Analyze data and make recommendations	
	Establish goals and objectives	
	Develop a technology action plan	
	Plan implementation schedule	
	Establish evaluation methods	
	Secure funding options	
	Submit final draft for internal review	
	Finalize the plan	
	Get approved by the local school board	
	Submit the plan for state approval	

Long-Range Articulated Professional Development Plan

What challenges are we facing in developing long-range professional development plans?


What strategies can we use to maximize professional development resources?

Some suggestions and strategies

Additional Resources

- I post many CCSS resources on my website and in a monthly newsletter. You may sign up for the newsletter at www.KatherineMcKnight.com
- Two new books: CCSS, ELA, grades 9-12 (Pearson)

THE
TEACHER'S
TOOLBOX



FOR THE
COMMON CORE STATE STANDARDS:
GRADES K-12

BY KATHERINE MCKNIGHT, PHD

Available on Amazon and at www.KatherineMcKnight.com

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Although This May Seem Overwhelming...

Imagine classrooms that are student centered where we are focusing on SKILLS and teachers and curriculum specialists are partnering to make this happen.

How to Reach Me

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